

Western Connecticut Council of Governments Multi-Jurisdiction Hazard Mitigation Plan Update 2026-2031

Municipal Annex for Town of New Canaan

77 Main Street
New Canaan, CT 06840
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RESILIENT
Land & Water

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1.0 INTRODUCTION

1.1 Purpose of Annex

The purpose of this Hazard Mitigation Plan (HMP) annex is to provide a community-specific hazard risk assessment, capability analysis, and evaluation and prioritization of hazard mitigation measures and projects. Background information and the regional effects of pertinent natural hazards are discussed in the main body of the Western Connecticut Council of Governments (WestCOG) Multi-Jurisdictional Hazard Mitigation Plan. This annex is designed to supplement the information presented in the Multi-Jurisdictional HMP with more specific detail for the Town of New Canaan and is not to be considered a standalone document.

The primary goal of this HMP, including this Municipal Annex, is to identify natural hazard risks and mitigation opportunities in order to reduce the loss of or damage to life, property, infrastructure, and natural, cultural, and economic resources. This includes the reduction of public and private damage costs. Limiting losses of life and damage to property will also reduce the social, emotional, and economic disruption associated with a natural disaster.

2.0 COMMUNITY PROFILE

2.1 Geography

2.1.1 Physical Setting

The Town of New Canaan was incorporated in 1801 and is located in southern Fairfield County and is home to a population of 19,738 (2010 U.S. Census). New Canaan is bordered by the municipalities of Darien to the south, Wilton and Norwalk to the east, Stamford to the west, and New York State to the north. Refer to Figure 2-1 for maps showing the regional location of New Canaan within the WestCOG region.

New Canaan is a suburban community with several rivers and streams flowing throughout. The Fivemile River flows from north to south through the center of town. The Silvermine River runs from north to south on the eastern border. The Noroton River originates in the northwestern central part of town and flows south. The highest elevation in New Canaan is about 500 feet in the easternmost areas bordering Wilton. With the southwestern area of New Canaan being at, or close to, 150 feet. The varying terrain of New Canaan makes the town vulnerable to an array of natural hazards.

The Center for Land Use Education and Research (CLEAR) has developed a statewide land cover dataset derived from the 2023 Annual National Land Cover Dataset (NLCD). Areas identified as developed open space are maintained grasses such as residential and commercial lawns or golf courses. The land cover, expressed as a percentage of total land, is shown in Table 2-1.

Table 2-1: Land Cover by Area

Land Cover Class	Percent of Total Land
Developed	10%
Forest	41%
Agriculture	1%
Developed Open Space	47%

Source: University of Connecticut Center for Land Use Education and Research (CLEAR)

2.1.2 Land Use

According to New Canaan's 2024 POCD, 75% of the Town's land is classified as residential use, 7.5% is designated as public and private recreation and open space, and commercial, industrial, and mixed-use account for 3.2% of uses. The remainder of land is right-of-way, utility, and vacant land.

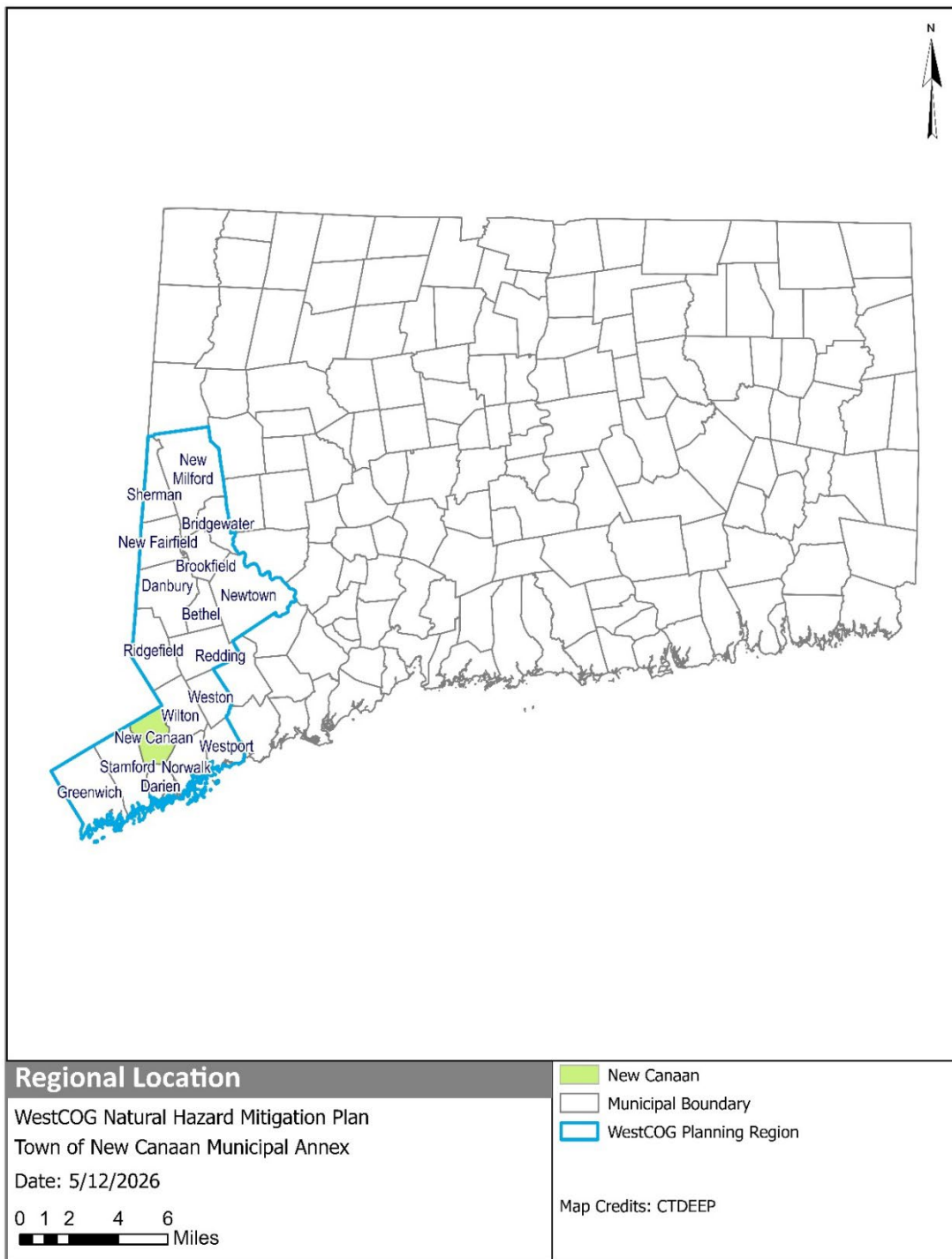


Figure 2-1: Location Map

2.1.3 Climate and Climate Change

Current Conditions

Over the course of the year, the temperature in New Canaan typically varies from 22°F to 82°F and is rarely below 8°F or above 89°F. The warm season lasts from June 2 to September 16, with an average daily high temperature above 73°F. The hottest month of the year is July, with an average high of 82°F and a low of 66°F. The cold season lasts from December 4 to March 13, with an average daily high temperature below 45°F. The coldest month of the year is January, with an average low of 23°F and a high of 37°F.

Precipitation falls throughout the year in Darien. The wetter season lasts from April 2 to August 20, with a greater than 29% chance of a given day being a wet day. The chance of a wet day peaks at 36% on August 3. The smallest chance of a wet day is 22% on January 29.

The most rain falls during the month of April with an average total accumulation of 3.7 inches. The least rain falls in February, with an average total accumulation of 2.0 inches.

The snowy period of the year lasts from November 16 to April 8, with a sliding 31-day liquid-equivalent snowfall of at least 1.0 inches. The most snow falls during February, with an average snowfall of 8.4 inches.

Climate data was sourced from Weather Spark based on analysis of the years 1980 to 2016.

Climate Change

Climate change projections for Connecticut were sourced from the 2019 Connecticut Physical Climate Science Assessment Report, developed by the University of Connecticut (UConn) Atmospheric Sciences Group and commissioned by the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) with funding from the Department of Energy and Environmental Protection (DEEP). All projections are based on the IPCC high CO₂ emission scenario (RCP8.5).

Temperature

Annual temperatures have been increasing throughout Connecticut and are projected to continue to do so in the future. By mid-century, the average annual temperature is projected to increase by 5°F. Seasonal average temperatures are also expected to rise, with the greatest increase (6°F) experienced in summer (June to August). The number of nights over which the temperature remains above 68°F will quadruple from 10 days per year to more than 40 days, and the number of extremely hot days will increase from above 4 per year to 48 per year.

Precipitation

Rainfall data in "Technical Paper No. 40" by the U.S. Weather Bureau (now the National Weather Service) (Hershfield, 1961) dates from the years 1938 through 1958. According to these data, the 24-hour rainfall amount for a 50% annual-chance storm in Fairfield County is 3.3 inches.

The continued increase in precipitation only heightens the need for hazard mitigation planning as the occurrence of floods may change in accordance with the greater precipitation.

The Northeast Regional Climate Center (NRCC) has partnered with the Natural Resources Conservation Service (NRCS) to provide a consistent, current regional analysis of rainfall

extremes (<http://precip.eas.cornell.edu/>). In 2020, this dataset listed the 24-hour rainfall amount for a 50% annual-chance storm in Greenwich as 3.46 inches.

The NOAA Atlas 14, released on September 30, 2015, puts the 24-hour rainfall amount for a 50% annual-chance annual storm in Greenwich at 3.62 inches.

These precipitation amounts and more details are summarized in Table 2-2, below.

Table 2-2: 24-Hour Rainfall Amounts by Annual-Chance Occurrence

Source	24-Hour Rainfall Amount (inches) by Annual-Chance Occurrence		
	50%	4%	1%
Technical Paper No. 40	3.3	5.7	7.2
NRCC	3.46	6.41	9.02
NOAA Atlas 14	3.62	6.64	8.43

Annual precipitation has been increasing statewide and is projected to continue to increase. By mid-century, annual precipitation is projected to increase by 8.5%, with the greatest increase (13.4%) occurring in the winter months. Extreme precipitation events are projected to increase in both frequency and magnitude. Based on this increase and the precipitation figures above, by 2050, Greenwich can expect the 24-hour rainfall amount for a 50% annual-chance storm to be around 3.7 to 3.9 inches or greater.

Impervious surfaces and infrastructure in town have increased over time as well, leading to increased runoff and peak discharge.

Despite overall increases in precipitation, drought risk is projected to rise, especially during summer, due to shifting precipitation patterns and rising potential evapotranspiration (plants taking up more water in hotter temperatures and longer growing seasons).

2.1.4 Drainage Basins and Hydrology

New Canaan is divided among six sub-regional watersheds as described in Table 2-3. All of the water that passes through New Canaan eventually empties into Long Island Sound.

Table 2-3: Sub-Regional Drainage Basins

Drainage Basin	Overall Sub-regional Area (sq. mi)	Area within Town (sq. mi)	Area within Town (acres)	Percent of Town
Darien River	6.21	1.15	734.95	5%
Fivemile River	12.40	5.99	3,835.02	27%
Mill River	13.51	2.90	1,857.05	13%
Noroton River	11.03	6.53	4,181.49	29%
Rippowam River	23.53	5.31	3,399.73	24%
Silvermine River	22.52	0.65	416.10	3%
Total	n/a	22.53	14424.34	

Source: Connecticut Department of Energy & Environmental Protection GIS Data

New Canaan is nearly entirely encompassed within the Southwest Coast drainage basin, which drains directly into Long Island Sound. The eastern edge around Silvermine River is in the

Norwalk drainage basin, which also drains into Long Island Sound. Of the six sub-regional drainage basins and their respective streams, the Noroton River is the largest, followed by the Fivemile River.

The Noroton River is approximately 9.4 miles long and originates near downtown New Canaan.

2.2 Society, Culture, and Government

2.2.1 Population and Demographic Setting

According to the 2020 U.S. Census, New Canaan had a population of 20,622 with 929 persons per square mile. The Connecticut State Department of Public Health estimates New Canaan's 2026 population at 20,870. The American Community Survey (ACS) projects a decline in population, with estimates showing a population of only 16,376 for the year 2030.

One important aspect of natural hazard mitigation planning is to identify a community's demographic trends in relation to natural hazards. The FEMA National Risk Index (NRI) (Version 1.20) explores and illustrates the relationships among social vulnerability, community resilience, expected annual losses from natural hazards, and risk from those hazards. The NRI has four ratings built into the dataset:

The social vulnerability incorporated into the NRI uses data from the United States Census Bureau's Community Resilience Estimate (CRE) dataset. This ten variable dataset represents the socioeconomic factors that are expected to contribute most to a community's ability to prepare for, withstand, and recover from a natural hazard event (Figure 2-2). The data used in the CRE were from the 1-year American Community Survey and Population Estimates Program.

The Town of New Canaan is considered to have very low social vulnerability, with some neighborhoods in the central area of town having relatively high social vulnerability (Figure 2-3).

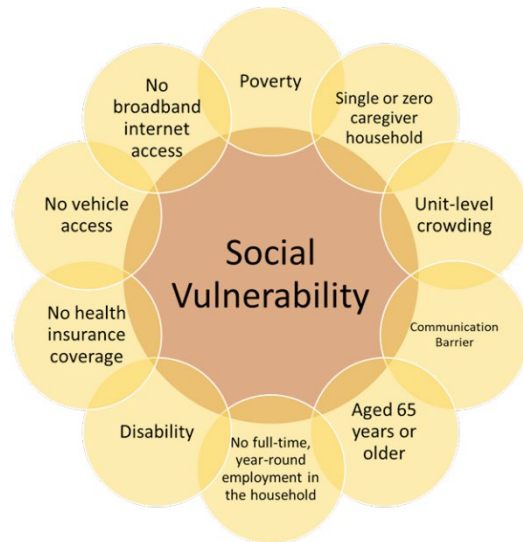


Figure 2-2 Community Resilience Estimates Vulnerability Components (Source: US Census Bureau)

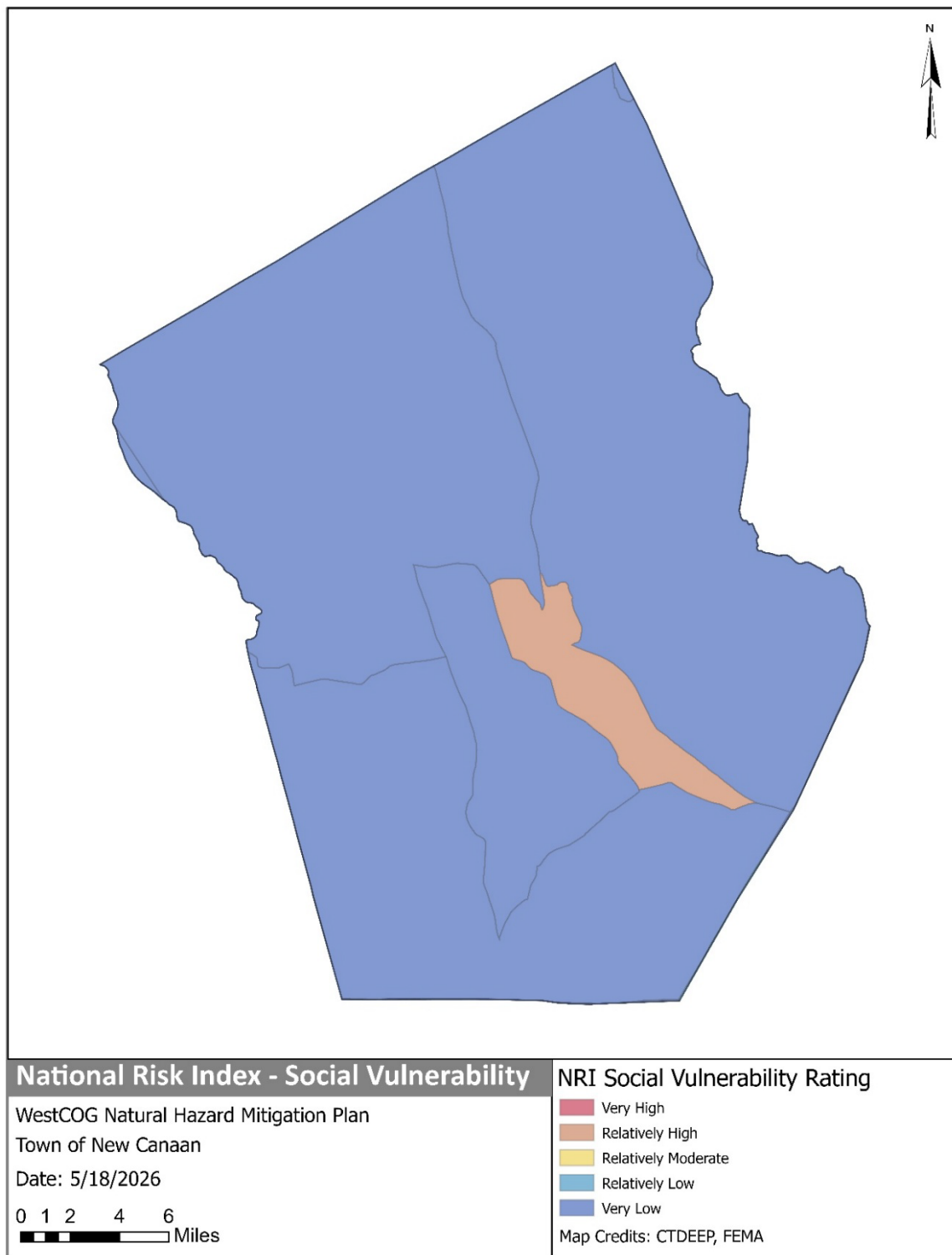


Figure 2-3 FEMA National Risk Index Social Vulnerability

2.2.2 Development Trends

Until the Revolutionary War, New Canaan was primarily an agricultural community; after the war, its major industry was shoemaking. As New Canaan's shoe business gathered momentum early in the 19th century, instead of a central village, regional settlements of clustered houses, mills, and schools developed into distinct district centers. Some of the districts were centered on Ponus Ridge, West Road, Oenoke Ridge, Smith Ridge, Talmadge Hill, and Silvermine, a pattern that the village gradually outgrew.

With the 1868 advent of the railroad to New Canaan, many of New York City's wealthy residents discovered the area and built summer homes. Eventually, many of the summer visitors settled year-round, commuting to their jobs in New York City and creating the community that continues today. In recent years, development has been slow and limited primarily to small residential developments.

The Town has not participated in transit-oriented development (TOD) planning as other communities have, however the 2024 POCD has identified an action to pursue innovative planning policies for the New Canaan Downtown area, which may include TOD. Overall, the town continues to see low development pressure, therefore development in high hazard areas continues to be limited.

2.2.3 Governmental Structure

The First Selectman, as the Chief Executive, is responsible for the procurement and administration of all functions and services required by the Town Charter. The Board of Selectmen, collectively, initiates all budget requests and appropriations, acts as purchasing agent for the Town, and approves all non-elected appointments to Boards, Commissions, and Committees.

The Administrative Officer assists the First Selectman with these duties and provides administrative assistance to the other two Selectmen and all Boards and Commissions as may be required. The Administrative Officer also acts as Secretary to the Board of Selectmen and is responsible for meeting schedules, notices, agendas, minutes, and the publication of meeting actions for the Board of Selectmen and the Board of Finance. He also serves as the Risk Manager.

Town departments provide municipal services and day-to-day administration. Many commissions and departments play a role in hazard mitigation, including the Planning and Zoning, Building, Fire, and Public Works.

2.2.4 Historic and Cultural Resources

Historic and cultural resources include sites, structures, and objects that are significant in history, architecture, archaeology, engineering, and culture. Protection of these resources grows economies and enhances community character, and following a natural disaster, they can help to reinforce neighborhood connections and reestablish a sense of community and normalcy. Consideration of these resources in this HMP is critical.

Historic preservation planning helps protect historic properties and cultural resources from demolition or alteration.

Hazard mitigation planning helps protect life and property from damage caused by natural and manmade hazards.

Integrating these two planning processes helps create safe and sustainable historic communities.

- Paraphrased from FEMA Report 386-6

Historic resources in New Canaan are concentrated within the Church Hill and New Canaan Historic Districts. New Canaan's historic resources also include the Merritt Parkway, the New Canaan Town Hall, a number of properties on Ponus Ridge Road, and sites and structures throughout the rest of the town. See Figure 2-4 for a map of historic resources in the community.

Analysis of the State Historic Preservation Office (SHPO) database of historic resources shows that some of these resources are exposed to natural hazards, as shown in Table 2-4.

Table 2-4: Number of Historic Assets (by parcel) Exposed to Different Hazards in New Canaan

Hazard	Count	Value
Dam Failure	135	\$128,606,870
Earthquake	751	\$1,037,724,520
Flooding	-	
1% Annual	55	\$105,671,860
0.2% Annual	17	\$26,945,100
Hurricane/Tropical Storm	751	\$1,037,724,520
Thunderstorm	751	\$1,037,724,520
Tornado	751	\$1,037,724,520
Winter Storm	751	\$1,037,724,520
Wildfire		
Intermix	63	\$114,549,610
Interface	16	\$14,605,080

Historic buildings and structures may be particularly susceptible to natural hazards because they were built prior to the establishment of more recent construction standards. Additionally, some of the structural integrity of these resources may have been degraded over the decades or centuries since their original construction. Structural retrofits and hazard mitigation methods may be challenging or restricted in cases where alteration of a resource will also diminish its cultural or historical aesthetic and value. Finally, miscommunications or lack of knowledge may lead to historic resources being damaged during the disaster recovery process.

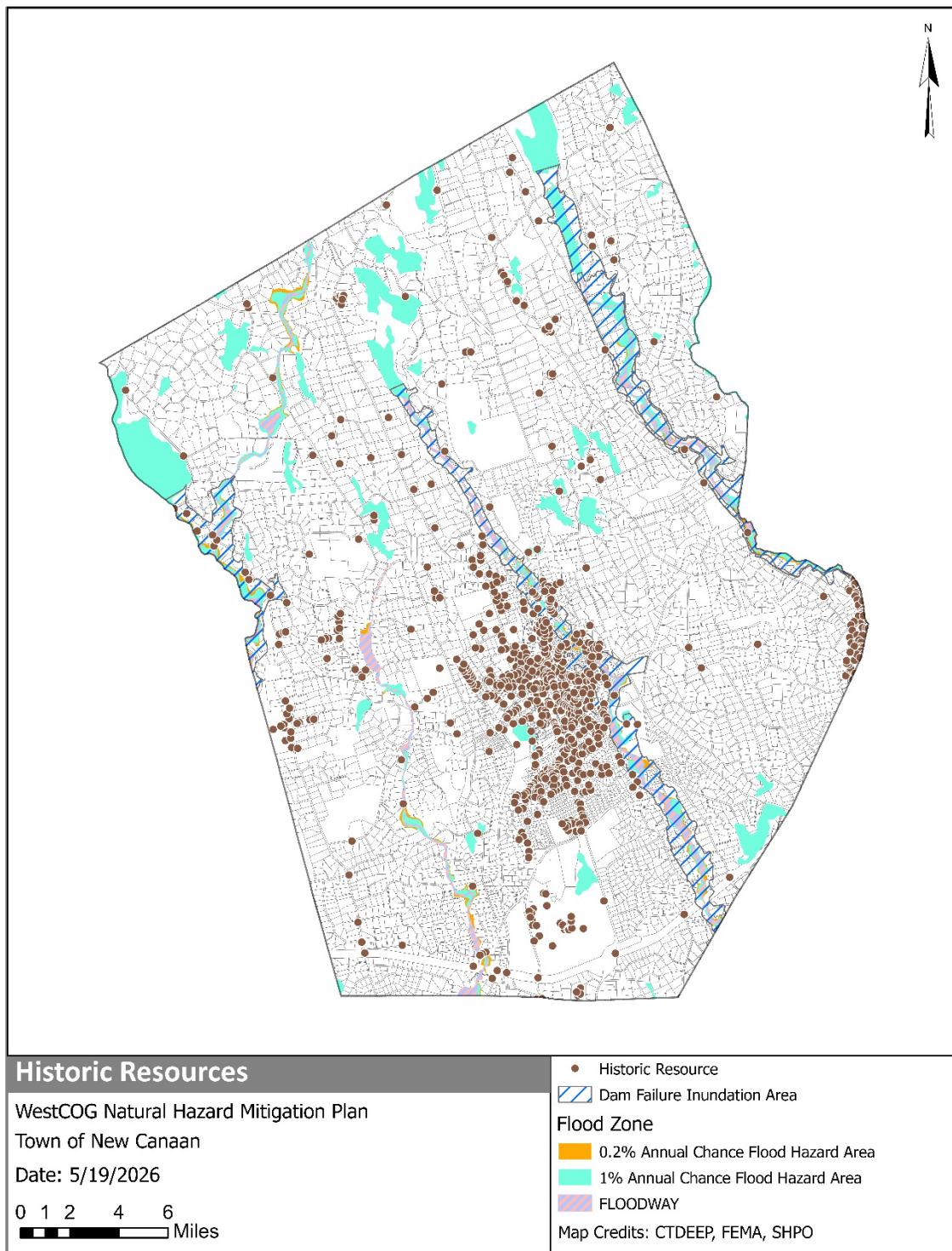


Figure 2-4: Historic Resources

Steps to incorporate historical and cultural preservation into hazard mitigation planning include:

- Inventory and survey historic and cultural resources.
- Implement appropriate mitigation measures for those resources.
- Take steps to move portable resources, such as artwork or documents, to safe locations prior to the occurrence of a hazard, if possible.
- Consider these resources in emergency operation plans to prevent accidental damage during recovery efforts.

Specific actions to mitigate natural hazard risks to historic resources were identified in the 2021 plan and are no longer current actions for the 2026-2031 update.

2.3 Infrastructure

2.3.1 Transportation

Major transportation routes in New Canaan include the Merritt Parkway (Route 15), which runs east to west through the southern edge of town. In addition, a spur of the Metro North/Amtrak rail line also runs up to the center of town, connecting to the main New Haven line. There are two train stations, one in the center of town and one in Talmage Hill.

2.3.2 Utilities

Water service is provided by Aquarion and the Norwalk 2nd Taxing District. Service is available along the entire Danbury Road corridor, in the Westport Road area, and in the Silvermine neighborhood. Much of the rest of New Canaan depends on private wells.

Residents and businesses use oil, propane, or natural gas for heat. Natural gas service is provided by Eversource to a small area of southwest New Canaan near Ponus Ridge Road and Running Brook Lane; Eversource is actively expanding its New Canaan natural gas service area. Eversource also provides electricity to New Canaan.

The New Canaan Wastewater Treatment division of the Public Works Department treats wastewater and septic tank waste at the New Canaan Wastewater Treatment Plant and maintains three pumping stations and 25 miles of sanitary sewers.

2.4 Planning and Regulatory Capabilities

New Canaan has in place a number of community planning mechanisms, regulations, and policies that serve to mitigate natural hazards by limiting development in hazardous areas, requiring buildings to be constructed to certain standards, or otherwise directing development and construction toward increased resilience. These are summarized below. More specific information about how each of these capabilities is relevant to each specific natural hazard type covered in this document is presented in each hazard chapter.

2.4.1 Review of Existing Local Plans

The Town of New Canaan has a number of plans that are relevant to hazard mitigation. These are noted here:

- **Plan of Conservation and Development (POCD):** New Canaan's most recent POCD was adopted in 2024. It addresses natural hazard concerns within the community and

includes strategies to mitigate risks from those hazards as the community continues to develop.

- **Stormwater Management:** New Canaan maintains a Stormwater Management Plan. This document has been updated to comply with the requirements of the US EPA 2017 updated *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems* (MS4 General Permit).
- **Capital Improvement Plan (CIP):** New Canaan maintains a CIP that is updated annually and lays out capital investments for a five-year period. The CIP often includes road, drainage, and other infrastructure improvement projects relevant to hazard mitigation.
- **Economic Development Plan:** New Canaan is included within the Western Connecticut Comprehensive Economic Development Strategy (CEDS) of 2023, developed by WestCOG. The plan aligns with the COG's other efforts to promote climate sustainability and resiliency in the region.
- **Emergency Operations Plan (EOP):** New Canaan's EOP is reviewed annually and updated as needed. Dam failure Emergency Action Plans (EAPs) for dams with failure inundation zones that may impact New Canaan, and for which EAPs are available, are on file locally.
- **Watershed Management Plan:** A Watershed Management Plan has been developed for the Norwalk River Watershed. The Norwalk River Watershed Action Plan was prepared by the Norwalk River Watershed Initiative Committee, HDR/HydroQual, and the former Southwestern Regional Planning Agency (SWRPA) in 1998 and updated in 2011. A Watershed Management Plan was also developed for the Five Mile River Watershed. Both plans focus on water quality but can help the community mitigate inland flood risks by incorporating watershed management best practices into its planning efforts.
- **Open Space:** New Canaan does not maintain a stand-alone Open Space Plan; instead, open space planning is incorporated into the community's POCD.

2.4.1 Review of Regulatory Structures

New Canaan regulates development through a number of regulations, codes, and ordinances. These are summarized below. More detailed information about how these regulations relate to specific natural hazards is described in Section 3.

- **Building Code:** New Canaan enforces the Connecticut State Building Code locally.
- **Zoning Regulations:** Most recently updated in December 2025.
- **Inland Wetlands and Watercourses Regulations:** Most recently updated in January 2013.
- **Subdivision Regulations:** Most recently updated in December 2008. Include provisions promoting control of stormwater runoff, installation of firefighting water sources, construction of adequate emergency access and egress, and burial of utilities.

2.5 Emergency Services, Critical Facilities, Sheltering, and Evacuation

The Town considers its police, fire, and governmental facilities to be critical since these are needed to ensure that emergencies are addressed while day-to-day management of New Canaan continues. The town also considers various facilities housing higher-risk individuals (such as elderly individuals or children) and large populations to be critical facilities. Table 2-5 identifies all of these critical facilities. There are multiple shelters for residents throughout the

town. The primary shelter would be the YMCA, as the Town has an MOU in place with the facility to serve as a designated shelter. The Waveny House and the Community Center would serve as backup shelters. The Library and Community Center would serve as a warming and cooling center during business hours.

Table 2-5: Critical Facilities

Facility	Address or Location	Type	Emergency Power	Shelter	In 1% Floodplain
Town Hall	77 Main St.	Town Hall / Backup EOC	?		
Department of Public Works	77 Main St.	Public Works			
New Canaan Health Department	77 Main St.	Community Health Programs Administration			
Human Services	77 Main St.	Municipal	?		
New Canaan Police Dept.	174 South Ave	Police / EOC	?		
New Canaan YMCA	564 South Ave	Shelter	?	?	
Waveny House	Waveny Park	Shelter		?	
Lapham Community Center	Waveny Park	Shelter	?	?	
New Canaan High School	11 Farm Rd.	School	?		
Saxe Middle School	468 South Ave	School	?		
East School	54 Little Brook Rd	School			
West School	769 Ponus Ridge	School			
South School	8 Farm Rd	School			
Silver Hill Hospital	208 Valley Rd	Hospital	?		*
New Canaan Fire Company 1	60 Main St	Fire	?		
Waveny Care Center, Inc.	3 Farm Rd	Care Facility	?		
New Canaan Volunteer Ambulance Incorporated	182 South Ave	Ambulance Service	?		
Highway Department	394 Main St	Municipal Services	?		
WWTF	394 Main St	Municipal Services	?		?

* This facility is partially located in Wilton, and that part is also located in the 1% Annual Chance Flood Hazard Area.

Emergency Response

The Town's Emergency Operations Center (EOC), including its Emergency Communications Center, is located on Route 1 near the commercial center. New Canaan is located in the Connecticut Department of Emergency Services and Public Protection (DESPP) Region 1, consisting of 14 municipalities in southwestern Connecticut.

New Canaan's Tree Warden is responsible for the care and control of all trees and shrubs in whole or in part within the limits of any Town road or grounds, those that extend or overhang the limits of any public roads or grounds. The Tree Warden has exclusive control over trees

within highways, even though the trees themselves stand on private grounds. The Warden determines the condition of trees, particularly with respect to safety.

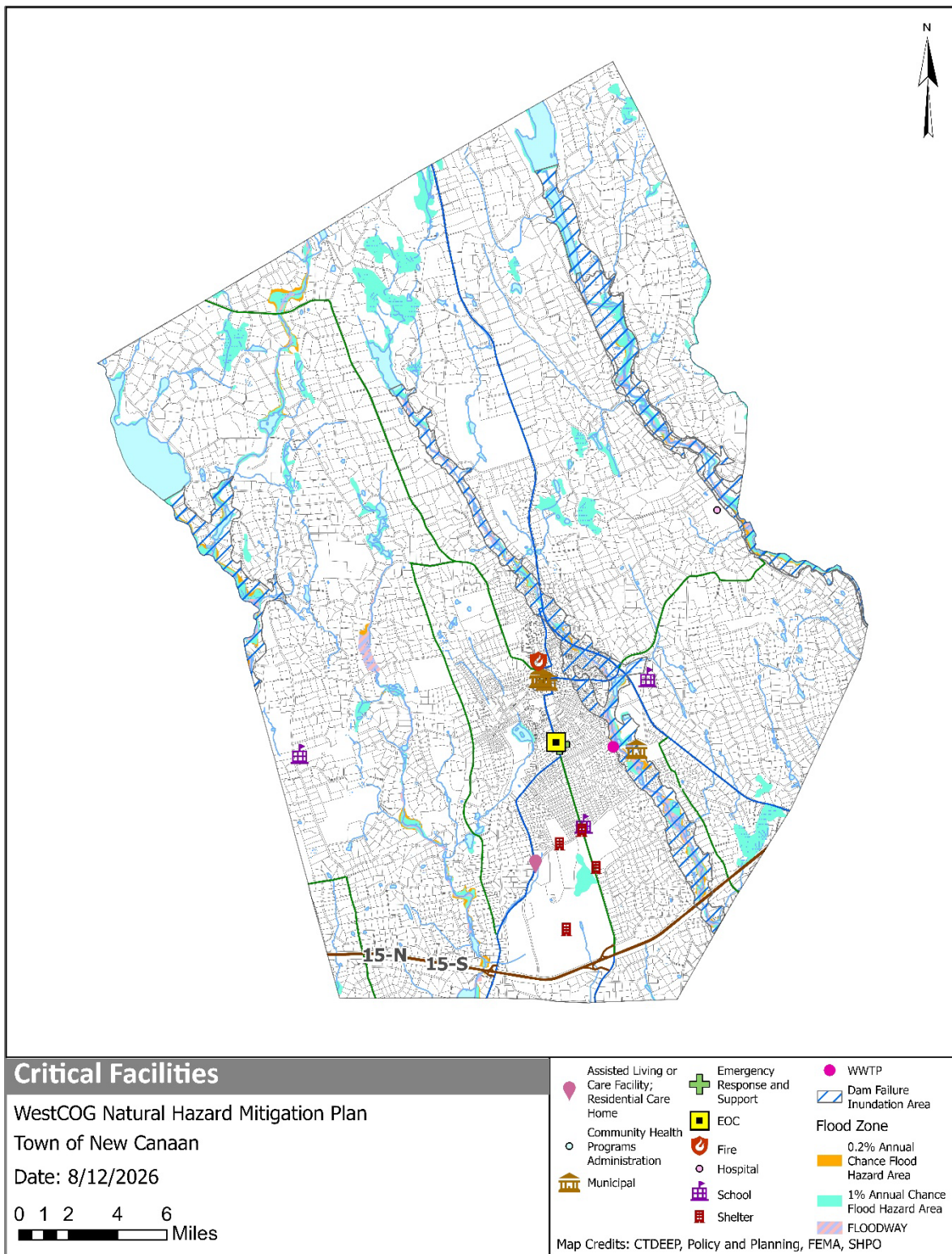


Figure 2-5: Critical Facilities & Flood Zones

Emergency Communication Capabilities

The Office of Emergency Management prepares for emergencies and disseminates emergency notifications through three methods:

- Everbridge
- Smart911: residents can sign up for this service
- Town-wide email list

The Town of New Canaan also utilizes the CT Alert notification system to alert residents of emergency situations. This system allows the state to direct geographically specific emergency notification telephone calls into affected areas.

Changes to Emergency Services since the Previous HMP

The town has a formal MOU with the YMCA to utilize the facility as a shelter. The Town replaced the Blackboard system with an Everbridge system.

3.0 HAZARD ASSESSMENT

3.1 FLOODING (COASTAL, INLAND, AND ICE JAMS)

3.1.1 Setting

The potential for flooding exists across New Canaan, with the majority of major flooding occurring along established riverine SFHAs. The areas impacted by river overflow are generally limited to river corridors and floodplains. Indirect flooding that occurs outside floodplains and localized nuisance flooding along tributaries can also be a concern. This type of flooding occurs particularly along roadways as a result of inadequate drainage and other factors. The frequency of flooding in New Canaan is considered likely for any given year, with flood damage potentially having significant effects during extreme events.

A regulatory floodplain with AE designation has been mapped along the Rippowam and Silvermine Rivers. The areas identified as providing flood storage are identified with A Zone designations, meaning they are regulated as floodplain, but flood elevations have not been established. The New Canaan Reservoir and John D Milne Pond have these traits. Floodplain and floodway designations have also been established along the rivers with AE designations. Refer to Figure 2-5 for the areas of New Canaan susceptible to flooding based on FEMA flood zones.

In general, potential flooding problems in New Canaan are concentrated along the multiple rivers.

3.1.2 Capabilities

New Canaan has rigorous land use regulations designed to protect natural resources and restrict development in flood zones and other hazard-prone areas. These regulations help prevent the loss of life and property by preventing inappropriate development in flood zones and reducing the amount of stormwater discharge that may exacerbate flooding.

Floodplain Management, NFIP, and CRS

The town has consistently participated in the NFIP since July 19, 1974, and intends to continue participation in the NFIP. SFHAs in New Canaan are delineated on a Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS). The FIS and FIRMs for the town were most recently revised in 2010.

The NFIP administrator for the Town oversees the enforcement of NFIP regulations. The degree of flood protection established by the variety of regulations in the Town meets the minimum requirements for regulatory purposes under the NFIP. The town has a minimum elevation standard to include two feet of freeboard.

The Town's Planning and Zoning Commission uses the 1% annual chance flood lines from the FIRM delineated by FEMA to determine floodplain areas. Site plan standards require that all proposals be consistent with the need to minimize flood damage, that public facilities and utilities be located and constructed to minimize flood damage, and that adequate drainage is provided.

Ordinances, Regulations, and Plans

Regulations, codes, and ordinances that apply to flood hazard mitigation in conjunction with and in addition to NFIP regulations are listed below, with examples of sections and content with specific relevance to flood mitigation.

Zoning Regulations:

- 5.5: Floodplain Overlay Zone. The Floodplain Overlay Zone is intended to provide reasonable notice regarding property that may be subject to the effects of flooding.

Inland Wetland and Watercourse Regulations:

- Chapter 193 - Inland Wetlands and Watercourses.
- Chapter 300 - Floodplain Management Regulations.
- Chapter 310 - Inland Wetlands Regulations.

Subdivision Regulations:

- Subdivision proposals must be consistent with the need to minimize flood damage.
- Proposals must have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- Proposals must provide adequate drainage to reduce exposure to flood hazards
- Base flood elevation data shall be provided for all subdivision proposals greater than five acres or fifty lots in Zone A

Drainage and Street Flooding

The Town Engineering Department is in charge of the maintenance of the town's drainage systems and performs clearing of bridges and culverts, and other maintenance as needed. The department maintains a list of drainage concern areas.

Public Information

The town receives regular weather updates through the Division of Emergency Management and Homeland Security (DEMHS) Region 1 email alerts as well as watches and warnings through the National Weather Service. Stream gages near New Canaan, such as along the Fivemile River, allow municipal officials to monitor for flood conditions.

Actions Completed and New Capabilities

The town routinely inspects culverts and catch basins for necessary repairs, replacement, and cleaning. An asset management system is currently in place for tracking infrastructure. The town has about 70% of its storm drains mapped in GIS. This system allows for easy tracking of damages and necessary repairs throughout town.

3.1.3 Vulnerabilities and Risk Assessment

Repetitive Loss Properties

There are 6 repetitive loss properties (RLPs) located in New Canaan; all are residential. The majority are on the Five Mile River. Town staff have reported that there is a Repetitive Loss

Property (RLP) that the Town has considered for acquisition and removal in the past; however, other mitigation steps have been taken.

Critical Facilities

There are no facilities located within the 100-year flood zones.

At-Risk Areas

There are delineated floodplains throughout the town, which are at increased risk of flooding; the primary area of risk related to delineated floodplains is the area along the Five Mile River. The town has also reported that there are issues with poor drainage areas. Drainage issues have been noted on Southwood Drive, Old Stamford Road, and in Waveny Park.

Although there has not been a challenge in the past five years, there is a history of flooding issues at the Nursery Road Bridge. Small measures have been taken over the years to address the issue, and have thus far been successful, however the town is aware of the history at this crossing.

The heavy precipitation event that occurred in August 2024 highlighted new challenges on River Street. Multiple homes in the areas experienced significant flooding. In addition, two roads were washed out, Turner Hill and Valley Hill, on the east side of town; this has never occurred before, and if it has, it was not to the extent experienced in the wake of this event. Willow Brook Lane (a reported RL property area) also experienced significant flooding during this event.

Flood related challenges have been identified at the Heritage Hill Condominium Complex. It is believed that a change in drainage systems have increased the levels of flooding at the complex and that an upstream detention basin is in need of dredging.

Changes and Improvements

New Canaan continues to maintain and improve its flood mitigation capabilities. The town performs maintenance dredging of both Mill and Mead ponds on an annual basis. The town has recently had conversations with residents in the Willow Brook Lane and Marvin Ridge areas as these properties experience significant flooding. Floodplain restoration and flood mitigation projects were recently completed at the Bristow Bird Sanctuary. New Canaan completed a drainage and flood mitigation study of the Five Mile River and uses its results as an element for review during the permitting process.

3.2 DAM FAILURE

3.2.1 Setting

Dam failures can be triggered suddenly, with little or no warning, and often from other natural disasters such as floods and earthquakes. Dam failures often occur during flooding when the dam breaks under the additional force of floodwaters. In addition, a dam failure can cause a chain reaction where the sudden release of floodwaters causes the next dam downstream to fail. While flooding from a dam failure generally has a moderate geographic extent, the effects are potentially catastrophic. Fortunately, a major dam failure is considered only a possible hazard event in any given year.

The Connecticut DEEP administers the statewide Dam Safety Program and designates a classification to each state-inventoried dam based on its potential hazard.

- *Class AA*: negligible hazard potential
- *Class A*: low hazard potential
- *Class BB*: moderate hazard potential
- *Class B*: significant hazard potential
- *Class C*: high potential hazard

3.2.2 Capabilities

Dam failure inundation areas are included in the CT Alert emergency notification system contact database. The Town has the Emergency Action Plan (EAP) for the South Norwalk Electric and Water (SNEW) and City of Norwalk owned dams on file in the event of a potential failure. There are three high hazard dams in town.

The Dam Safety Section of the Connecticut DEEP Inland Water Resources Division is charged with the responsibility for administration and enforcement of Connecticut's dam safety laws. The existing statutes require that permits be obtained to construct, repair, or alter dams, and that existing dams be inventoried and periodically inspected to ensure that their continued operation does not pose a hazard to life, health, or property.

Dams regulated by the Connecticut DEEP must be designed to pass the 1% annual chance rainfall event with one foot of freeboard, a factor of safety against overtopping.

Significant and high hazard dams are required to meet a design standard greater than the 1% annual chance rainfall event.

The dam safety requirements are codified in Sections 22a-401 through 22a-411, inclusive of the Connecticut General Statutes. Sections 22a-409-1 and 22a-409-2 of the Regulations of Connecticut State Agencies have been enacted and set requirements for the registration, classification, and inspection of dams. Dams must be inventoried by the owner with the Connecticut DEEP according to Connecticut Public Act 83-38.

Effective October 1, 2013, the owner of any high or significant hazard dam (Class B and C) must develop and implement an EAP after the Commissioner of DEEP adopts regulations. The EAP shall be updated every two years, and copies shall be filed with DEEP and the chief executive officer of any municipality that would potentially be affected in the event of an emergency. New regulations shall establish the requirements for such EAPs, including but not limited to (1)

criteria and standards for inundation studies and inundation zone mapping; (2) procedures for monitoring the dam or structure during periods of heavy rainfall and runoff, including personnel assignments and features of the dam to be inspected at given intervals during such periods; and (3) a formal notification system to alert appropriate local officials who are responsible for the warning and evacuation of residents in the inundation zone in the event of an emergency.

The CT DEEP also administers the Flood and Erosion Control Board program, which can provide non-competitive state funding for the repair of municipality-owned dams. Funding is limited by the State Bond Commission. State statute Section 25-84 allows municipalities to form Flood and Erosion Control Boards, but municipalities must take action to create the board within the context of the local government, such as by revising the municipal charter. The Town's Planning and Zoning Commission is responsible for reviewing all development activities that occur within flood hazard or flood-prone areas.

The Town uses the CT Alert system for emergency notification. The dam failure inundation mapping discussed in the next section can be used to help streamline the geographic contact areas if the failure of a major dam is imminent.

Actions Completed and New Capabilities

New Canaan continues to mitigate dam failure where appropriate.

3.2.3 Vulnerabilities and Risk Assessment

As of March 2026, there were 67 DEEP-inventoried dams within the Town of New Canaan. The higher hazard dams are shown in Figure 2-5. Three of these dams are Class C, or high hazard dam, and one other is a Class B, or significant hazard dam. As shown in Table 3-1, the higher hazard dams located in the town pose a risk to New Canaan.

Table 3-1: High Hazard Dams with Potential to Affect the Town of New Canaan

#	Name	Location	Class	Owner
9001	New Canaan Reservoir Dam	New Canaan Reservoir	C	South Norwalk Electric and Water
9002	John D. Milne Lake Dam	John D. Milne Lake	C	City of Norwalk
9003	Grupes Reservoir Dam	Grupes Reservoir	C	City of Norwalk
9011	Collins Pond Dam	Collins Pond	B	Private
9004	Silvermine Dam	Silvermine	BB	Private
9005	Hickok Pond	Hickok Pond	BB	Private
9006	Jeliliff Mill Pond Dam	Jeliliff Mill Pond	BB	Private
9007	Siscowit Reservoir Dam	Siscowit Reservoir	BB	Town of New Canaan
9008	Lockwood Pond Dam	Lockwood Pond	BB	Private
9010	Above Pond Dam	Above Pond	BB	Private
9012	Greenly Pond Dam	Greenley Pond	BB	Private
9013	Two Acre Pond Dam	Two Acres Pond	BB	Private

Failure of a high hazard dam can affect properties downstream of the impoundment both in and outside of the town, with potential large inundation zones traveling along each respective waterway.

The New Canaan Reservoir Dam is 445 feet in length, with a maximum height of 37 feet. It is an earthen and concrete structure that impounds roughly 320 acres at normal water levels, with a contributing watershed of 0.84 square miles.

The Grupes Reservoir Dam is a 940-foot-long and 70-foot-high concrete dam. This dam impounds roughly 1,870 acres, with a contributing watershed of 9.5 square miles.

The Silvermine Dam is 235 feet in length, with a maximum height of 24 feet. It is a masonry structure and impounds roughly 171 acres at normal water levels with a contributing watershed of 10.2 square miles.

Changes and Improvements

New Canaan continues to be at low risk from dam failure.

3.3 HURRICANES AND TROPICAL STORMS

3.3.1 Setting

Several types of hazards may be associated with tropical storms and hurricanes, including heavy or tornado winds, heavy rains, and flooding. While only some of the areas of New Canaan are susceptible to flooding damage caused by hurricanes, wind damage can occur anywhere in the town. Hurricanes, therefore, have the potential to affect any area within the Town of New Canaan. A hurricane striking New Canaan is considered a possible event each year and could cause critical damage to the town and its infrastructure. Wind damage from a hurricane can occur anywhere in the town, and heavy rainfall may cause riverine and urban flooding.

Connecticut is located in FEMA Zone II regarding maximum expected wind speed. The maximum expected wind speed for a three-second gust is 160 mph. The American Society of Civil Engineers recommends that new buildings be designed to withstand this peak three-second gust.

3.3.2 Capabilities

Wind loading requirements are addressed through the state building code. The current code was updated and effective as of October 1, 2022. The code specifies the design wind speed for construction in all Connecticut municipalities. Effective 2018, the design wind speed for New Canaan is 110 miles per hour for a Category 1, 120 miles per hour for a Category 2, 130 miles per hour for Category 3, and 135 miles per hour for a Category 4 or greater. New Canaan has adopted the Connecticut Building Code as its building code. The town website provides links to the State Building Codes so that developers can find wind design standards.

New Canaan DPW has a robust tree maintenance budget.

The Town of New Canaan has worked to ensure that citizens have the information needed to properly plan and prepare for natural disasters. The Office of Emergency Management prepares for emergencies and disseminates emergency notifications. Residents can choose to receive phone, email, or text alerts about severe weather events, power outages, police bulletins, and other vital emergency information.

Utilities must be placed underground in new developments; this capability is considered proactive to prevent damage from wind and falling trees.

Actions Completed and New Capabilities

Coordination with the Town's electric utility, Eversource, continues to improve since the previous HMP. The State of Connecticut has updated its State Building Code; new construction that adheres to this new code is expected to be more resilient to hurricane winds.

The Town has also hardened its emergency radio system by installing additional emergency generators and has acquired a trailer for transportation of a portable generator. The Town has a strong solarization initiative, with solar panels installed on many municipal buildings and plans to expand solarization in the works. The Town Pool and Nature Center solar systems are able to operate off the grid.

3.3.3 Vulnerabilities and Risk Assessment

Blocked roads or loss of power due to falling trees is a primary concern for the town; the Public Works Department aggressively funds tree maintenance and considers its capabilities to be adequate.

Most of the housing stock in town predates recent building code changes and may therefore be susceptible to roof and window damage from high winds. The primary risk associated with tropical storm winds is the downing of trees and limbs, leading to power outages and blocked roads.

Changes and Improvements

New Canaan continues to mitigate the impacts of hurricanes and tropical storms by way of flooding mitigation and aggressive tree maintenance.

3.4 SUMMER STORMS AND TORNADOES

3.4.1 Setting

Heavy wind (including tornadoes and downbursts), lightning, heavy rain, hail, and flash floods are the primary hazards associated with summer storms. Like hurricanes and winter storms, summer storms and tornadoes have the potential to affect any area within the Town of New Canaan. Furthermore, because these types of storms and the hazards that result (flash flooding, wind, hail, and lightning) might have a limited geographic extent, it is possible for a summer storm to harm one area within the town without harming another. The entire Town of New Canaan is therefore susceptible to summer storms (including heavy rain, flash flooding, wind, hail, and lightning) and tornadoes.

Based on the historic record, it is considered highly likely that a summer storm that includes lightning will impact the Town of New Canaan each year, although lightning strikes have a limited effect. Strong winds and hail are considered likely to occur during such storms, but also generally have limited effects. A tornado is considered a possible event in Litchfield County each year that could cause significant damage to a small area.

3.4.2 Capabilities

Warning is the primary existing mitigation method for tornadoes and thunderstorm-related hazards. The NOAA National Weather Service issues watches and warnings when severe weather is likely to develop or has developed, respectively. New Canaan's emergency communication capabilities are described in Section 2.5.

The town also has contracts with private contractors to assist with debris removal after an event.

Actions Completed and New Capabilities

The town is continuously pursuing upgrades to backup power systems for municipal facilities and has also installed solar power capabilities in several municipal buildings.

3.4.3 Vulnerabilities and Risk Assessment

The entire Town of New Canaan is at relatively equal risk for experiencing damage from summer storms and tornadoes. Based on the historic record, a few summer storms have resulted in costly damages to the Town. Most damages are relatively site specific and occur to private property (and therefore are paid for by private insurance). For municipal property, the town budget for tree removal and minor repairs is generally adequate to handle summer storm damage.

The Town of New Canaan has moderate to high potential to experience tornado damage. In general, thunderstorms and hailstorms in Connecticut are more frequent in the western and northern parts of the state and less frequent in the southern and eastern parts. The majority of these events do not cause any measurable damage. Although lightning is usually associated with thunderstorms, it can occur on almost any day. The likelihood of lightning strikes in the New Canaan area is very high during any given thunderstorm, although no one area of the town is at a higher risk of lightning strikes. The risk of at least one hailstorm occurring in New Canaan is considered moderate in any given year.

The risk of downbursts occurring during such storms and damaging the Town of New Canaan is believed to be low for any given year. All areas of the town are susceptible to damage from high winds, although more building damage is expected in the central, more developed areas of town, while more tree damage is expected in the less densely populated areas of town.

Secondary damage from falling branches and trees is more common than direct wind damage to structures. Heavy winds can take down trees near power lines, leading to the start and spread of fires. Most downed power lines in New Canaan are detected quickly, and any associated fires are quickly extinguished. Such fires can be extremely dangerous during the summer months during dry and drought conditions. It is important to have an adequate water supply for fire protection to ensure the necessary level of safety is maintained.

A tornado hit New Canaan in 2018. According to the NCEI, the tornado occurred on October 2, 2018, and was rated an EF1. Wind speeds were around 100 miles per hour. The path was nearly 4 miles long and about 300 feet wide. Damage to cars was reported; total property damage was estimated at \$50,000. Impacts of the storm included downed trees and power lines, and temporary road closures. The tornado began near Weed Street and Marshall Ridge Road and traveled southeast through Waveny Park to Conrad Road. The Tornado “hopped over” the High School and Middle School without causing any damage

Two severe wind events in 2024 and 2025 caused a reported \$5,000 in damages due to downed trees and power lines.

Changes and Improvements

New Canaan continues to mitigate summer storm and tornado impact.

3.5 WINTER STORMS AND NOR'EASTERS

3.5.1 Setting

The entire Town of New Canaan is susceptible to winter storms. In general, winter storms are considered highly likely to occur each year (although major storms are less frequent), and the hazards that result (nor'easter winds, snow, and blizzard conditions) can potentially have a significant effect over a large area of the town.

3.5.2 Capabilities

Prior to a winter weather event, the town ensures that all warning/notification and communications systems are ready and ensures that appropriate equipment and supplies, especially snow removal equipment, are in place and in good working order. In some known problem areas, pre-storm treatment is applied to roadways to reduce the accumulation of snow. The town also prepares for the possible evacuation and sheltering of populations that could be affected by the upcoming storm (especially the elderly and people with special needs).

The New Canaan highway department plows and de-ices 125 miles of public roads in town. The DPW deicing and plowing policy is posted on the town website and outlines the procedures for winter storm response responsibilities.

Actions Completed and New Capabilities

New Canaan's winter storm mitigation capabilities continue to be significant, although there has not been a significant change in these capabilities since the previous HMP was adopted.

3.5.3 Vulnerabilities and Risk Assessment

The entire Town of New Canaan is at relatively equal risk for experiencing damage from winter storms although some areas (such as icing trouble spots and neighborhoods with a high concentration of flat roofs) are more susceptible. The public assistance reimbursement from Winter Storm Alfred was \$435,347, proving that winter storms can be costly. However, many damages are relatively site specific and occur to private property (and therefore are paid for by private insurance) while repairs for power outages are often widespread and difficult to quantify to any one municipality.

The structures and utilities in New Canaan are vulnerable to a variety of winter storm damage. Tree limbs and some building structures may not be suited to withstand high wind and snow loads. Ice can damage or collapse power lines, render steep gradients impassable for motorists, undermine foundations, and cause "flood" damage from freezing water pipes in basements. Drifting snow can occur after large storms, but the effects are generally mitigated through municipal plowing efforts.

Changes and Improvements

New Canaan continues to maintain tree maintenance capabilities, reducing the vulnerability of the town's electric grid and roads system to severe snow events.

3.6 WILDFIRES AND DROUGHT

3.6.1 Setting

New Canaan is generally considered a moderate risk area for small wildfires but a low risk area for large wildfires. Wildfires are of particular concern in outlying areas without public water service and other areas with poor access for fire-fighting equipment. Small pockets of such areas in New Canaan are located outside of the more built up parts of town. Hazards associated with wildfires include property damage and loss of habitat.

In addition, New Canaan and Fairfield County overall have experienced drought challenges over recent years. The 2023 Connecticut Natural Hazard Mitigation Plan assumes that the State of Connecticut is likely to experience a drought every two to three years. This assumption is based on climate change projections that anticipate hotter, wetter conditions in the near future. Climate forecasts often suggest that while precipitation may increase, the overall pattern will generally be higher intensity storms, with longer than average dry periods between events. The State Plan also identifies that Fairfield County accounts for roughly 7.28% of the state's total number of farms, with a market value of over \$42 million in product sold from these farms.

3.6.2 Capabilities

Regulations regarding fire protection in New Canaan are outlined in the *Code of Ordinances*:

- Chapter 22 – Fire Department
- Chapter 23 - Fire Zones
- A designated, unobstructed passageway sufficient in size to permit free passage of fire and other emergency equipment from a public street to all necessary areas or portions of any public or private property open to the public.

The New Canaan Fire Department consists of both career firefighters and volunteers. As of 2024, the Department has a full complement of twenty-six made up of 16 career firefighters, 4 career lieutenants, 4 career captains, one career Chief, and one career fire marshal, supplemented by a well-trained group of about 27 volunteers. The Department relies heavily on volunteers, and it is vital that a sufficient pool of volunteers be available to respond to various calls for help. Applications for being a volunteer firefighter are accepted throughout the year.

Actions Completed and New Capabilities

Information on Open Burning has been added to the Town website.

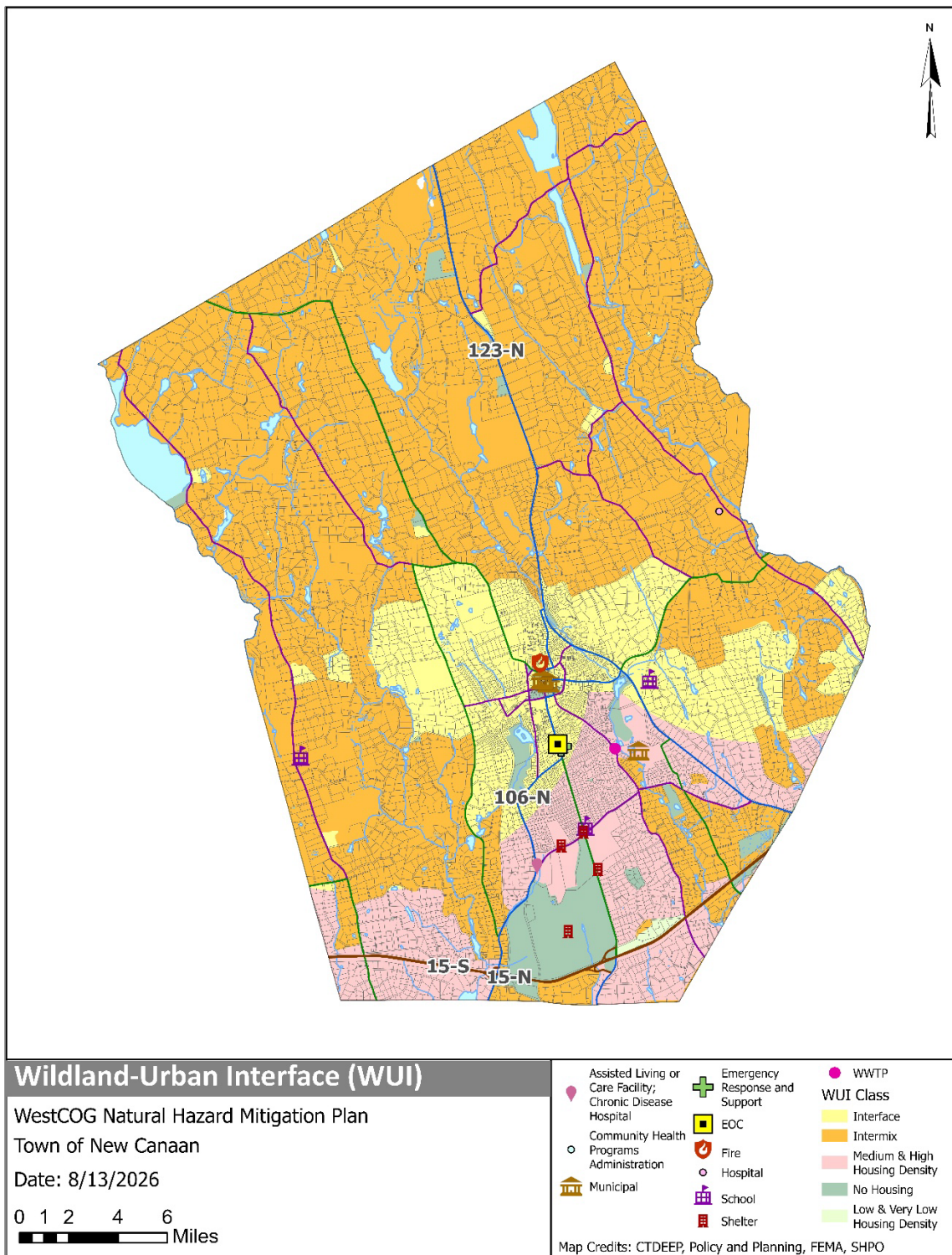


Figure 3-1: Wildfire Risk Areas

3.6.3 Vulnerabilities and Risk Assessment

According to the Connecticut DEEP, the actual forest fire risk in Connecticut is low due to several factors. First, the overall incidence of forest fires is very low. According to the 2023 State Hazard Mitigation Plan, an average of 243 fires per year occurred from 2013 to 2022; an increase from the average 109 fires per year reported in the 2019 State HMP. In 2020 alone, there were a reported 603 wildland fire events. Secondly, as the wildfire/forest fire prone areas become fragmented due to development, the local fire departments have increased access to those neighborhoods for firefighting equipment. Third, the problematic interface areas such as driveways too narrow to permit emergency vehicles are site specific. Finally, trained firefighters at the local and state levels are readily available to fight fires in the state, and inter-municipal cooperation on such instances is common.

In the drought year of 1999, the average wildfire in Connecticut burned 5 acres, compared with the two most extreme wildfires recorded since 1986, which burned 300 acres each. Given the availability of firefighting water in New Canaan, including the use of nearby water bodies, it is believed that this average value for a drought year and the extreme value are applicable to the town as well.

In the summer of 2025, minor brush fires impacted a roughly 2.5 acre area in Waveny. It was reported that a vehicle fire on the Merrit Parkway started this fire; however, conditions promoted and escalated the event. Response and capacity were found to be sufficient for this event between the town's capabilities, mutual aid resources, and regional response.

Wildfire Risk Areas are mapped in Figure 3-1.

Changes and Improvements

The town's vulnerability to wildfires continues to be low.

3.7 EARTHQUAKES AND LANDSLIDES

3.7.1 Setting

The entire Town of New Canaan is susceptible to earthquake damage. However, even though earthquake damage has the potential to occur anywhere, both in town and in the northeastern United States, the effects may be felt differently in some areas based on the type of geology. In general, earthquakes are considered a hazard that may possibly occur, but that may cause significant effects to a large area.

According to the 2019 *Connecticut Natural Hazard Mitigation Plan Update*, Connecticut is at a low to moderate risk for experiencing an earthquake of a magnitude greater than 3.5 and at a moderate risk of experiencing an earthquake of a magnitude less than 3.0 in the future. No earthquake with a magnitude greater than 3.5 has occurred in Connecticut within the last 30 years, and the USGS currently ranks Connecticut 43rd out of the 50 states for overall earthquake activity.

3.7.2 Capabilities

The town has adopted the state building codes for new construction, and they are enforced by the Building Official. Due to the infrequent nature of damaging earthquakes, land use policies in town do not directly address earthquake hazards. However, various documents do indirectly discuss areas susceptible to earthquake damage and regulations that help to minimize potential earthquake damage.

Subdivision Regulations:

- Encourages the wise use of natural features throughout the community, which might include sloping areas and prone soil types.

Plan of Conservation and Development:

- Promotes conservation of natural resources in town and promotes low impact development (LID). Conservation and LID techniques may reduce erosion, therefore mitigating earthquake and landslide damages.

Zoning

- Prohibits development on slopes greater than 25%.
- The town has a height restriction of 45 feet for residential structures, and 30 feet for retail or commercial, which may help reduce earthquake damage risks.

Actions Completed and New Capabilities

New Canaan continues to have appropriate capabilities for mitigating earthquake events.

3.7.3 Vulnerabilities and Risk Assessment

Some areas in New Canaan are underlain by sand and gravel, particularly along the Noroton River, Fivemile River, and Silvermine River. Structures in these areas are at increased risk from earthquakes due to amplification of seismic energy and/or collapse. Most of the remaining area is underlain by glacial till and is therefore not at increased risk during an earthquake due to unstable soils.

A series of earthquake probability maps was generated using the 2009 interactive web-based mapping tools hosted by the USGS. These maps were used to determine the probability of an earthquake of greater than magnitude 5.0 or greater than magnitude 6.0 damaging the Town of New Canaan. Results are presented in Table 3-1 below.

Table 3-1: Probability of a Damaging Earthquake in the Vicinity of New Canaan

Time Frame (Years)	Probability of the Occurrence of an Earthquake Event > Magnitude 5.0	Probability of the Occurrence of an Earthquake Event > Magnitude 6.0
50	2% to 3%	< 1%
100	4% to 6%	1% to 2%
250	10% to 12%	2% to 3%
350	12% to 15%	3% to 4%

Changes and Improvements

The town's vulnerability to earthquakes continues to be low.

3.8 EXTREME HEAT

3.8.1 Setting

Extreme heat can occur at any time during the warmer months and can be defined as temperatures that hover 10 degrees or more above the average high temperature for the region. The NWS defines extreme heat as a period of abnormally hot weather generally lasting more than two days. A *heat wave* typically lasts three or more days with temperatures over 90 degrees for those days. These events typically last for a prolonged period of time, can vary in extent and intensity, and are often accompanied by high humidity.

An extreme heat event or heat wave can occur anywhere throughout Connecticut and any of the WestCOG communities. According to the 2023 Connecticut State Natural Hazard Mitigation Plan, Fairfield and Litchfield counties experienced, between 2012 and 2021, the greatest and least average annual number of days with temperatures greater than 90 degrees, respectively. Fairfield County experienced an average of 5 days, while Litchfield County experienced an average of 0 days.

Extreme heat events are expected to increase. The WestCOG Regional Climate Assessment (2026) notes that "by 2050, in a high CO₂-emissions scenario (RCP 8.5), average temperatures are expected to rise by approximately 5°F and continue to increase thereafter." The region is also likely to see an increase in heat wave days, summer days (where daily maximum temperatures are above 77 degrees), and tropical nights (where the daily minimum is below 68 degrees).

3.8.2 Capabilities

The Town of New Canaan has identified cooling centers in town that can provide respite for community members during an extreme heat event or heat wave. The Town also monitors the National Weather Service and local forecasts for heat warnings and advisories, in addition to guidance set forth by the State.

Actions Completed and New Capabilities

The town has identified two cooling centers in New Canaan.

3.8.3 Vulnerabilities and Risk Assessment

While the entire town is at risk of an extreme heat event, vulnerability can vary widely throughout the community as it does across Connecticut. To better characterize vulnerability to extreme heat, UConn CIRCA has developed a tool to aid in understanding extreme heat vulnerability for communities across the state. This tool, known as the Climate Change Vulnerability Index (CCVI), comprises dozens of factors that contribute to a community's heat sensitivity, exposure, adaptive capacity, and, ultimately, overall heat vulnerability. The CCVI can be used to characterize heat vulnerability in New Canaan.

In general, the most vulnerable populations in New Canaan would include the young and the elderly, and those populations living in the more densely developed areas in town, which may have reduced tree coverage and a greater density of impervious surface. According to the CCVI, more heat vulnerable areas in Town are concentrated in the Town Center and along southern stretches of Routes 124 and 123.

Changes and Improvements

The town, like all WestCOG communities, is now including extreme heat in its HMP and beginning to plan more intently to address extreme heat impacts.

4.0 MITIGATION STRATEGIES AND ACTIONS

4.1 Goals and Objectives

Municipal goals and objectives have been made consistent regionally and are presented in the Multi-Jurisdictional Plan document.

4.2 Status of Mitigation Strategies and Actions from Previous HMP

The table below lists the mitigation actions developed in the previous HMP and the status of each. Actions to be carried forward are noted as such. Actions that have been institutionalized as capabilities are not carried forward.

Table 4-1 Status of Previous Mitigation Actions

#	Description	Status	Notes
1	Provide information on the Town website about CT DEEP training and information around small business chemical management for hazard resilience.	Remove	Make regional
2	Use the CT Toxics Users and Climate Resilience Map to identify toxic users located in hazard zones within your community. Contact those users to inform them about the CT DEEP small business chemical management initiative.	Remove	Make regional
3	Host a CT DEEP presentation for municipal staff and local businesses about business chemical management for hazard resilience.	Revise	Part of MS4 includes a consultant presentation that includes this information. EM monitors hazconnect and works with those that have tier 2 reports to make sure that first responders have this info. Actively and annually going through this at the municipal level.
4	Register as a Sustainable CT community and make progress with the hazard mitigation goals associated with registration.	Remove	Bronze status in 2021 or 2022, noted in POCD to try and achieve silver
5	Collaborate with CIRCA on the "Resilient Connecticut" project	Carry Forward With Revision	Follow up - town is unsure of this
6	Increase Substantial Damage and Substantial Improvement lookback periods to two or more years.		See below
7	Compare local floodplain regulations with Revised State Model Flood Regulations to identify any remaining opportunities for improvement	Carry Forward with Revision	Ongoing - waiting for maps to be updated.
8	Contact the owners of Repetitive Loss Properties and nearby properties at risk to inquire about mitigation undertaken and suggest options for mitigating flooding in those areas. This should be accomplished with a letter directly mailed to each property owner.	Carry Forward with Revision	Not targeted because unsure of those that are actually RL properties, and with those that are known, town is hesitant to take on any responsibility. Revise To Become More Achievable. Possibly A Regional Action
9	Coordinate with CT SHPO to conduct historic resource surveys, focusing on areas within natural hazard risk zones (flood zones, wildfire hazard zones, steep slopes) to identify historic resources at risk and support the preparation of resiliency plans across the state.	Carry Forward with Revision	Unaware of any survey. Revise To Become More Achievable

#	Description	Status	Notes
10	Review plans that fulfill DEEP Storm Water Management, Phase II requirements and identify projects that may be eligible for FEMA natural hazard mitigation grants.	Remove	Potentially capability - follow up? Maintain ms4 annual reporting. Updated drainage regs in accordance with state updates
11	Perform maintenance of drainage ditches and waterways on Southwood Drive	Remove	Unaware of any issues. Integrate Into Narrative That There Was a Challenge
12	Work with the state on addressing drainage issues on Old Stamford Road / Route 106.	Carry Forward with Revision	See below. Revise Acknowledge Ongoing Work
13	Conduct feasibility study to install a microgrid for downtown and emergency services.	Remove	Definitely repeat flood area, no longer looking at installing a microgrid. Weed/Jelliff is state road area, with metronorth train, so it is tough to identify any potential other projects. State has retained consultants to evaluate the area.
14	Work with CT DEEP to validate and/or correct the RL list and update the mitigation status of each listed property.	Remove – make regional	Nothing on this
15	Annually conduct an emergency operations exercise for a local terrorism, sabotage, or mass casualty event.	Remove	Participated in the State exercise - also have quarterly events at the Town level. Next spring there will be a tabletop exercise on chemical spill at the town level.
16	Identify and adopt a public alert system with improved capabilities relative to the current Blackboard Connect system utilized by the Town	Complete	Complete - town uses Everbridge. Everbridge being used for things other than emergencies.
17	Complete the Bristow Bird Sanctuary rehabilitation project, incorporating floodplain restoration and other flood mitigation actions. The project will include wetland restoration and dredging and should improve floodplain storage capacity. Project is scheduled to be completed over the next 3 years.	Complete	Entirely complete - ongoing maintenance need, but all proposed work and projects have been completed.
18	Install a Combined Heat and Power system at the YMCA, which is an emergency shelter.	Remove	Installed - if not online, it will be soon.
19	Develop a drainage improvement plan for Waveny Park	Carry Forward Revision to Execute Needs.	May need to follow up with Parks. Did repairs after the August 2024 flooding. Improvements recently made to park at turf ball field. Downfield neighbors raised concerns about some discharge points. Consultant assessing outfall through wetlands - along state 106
20	Install a Combined Heat and Power system at the Middle School (a critical facility) and pursue development of this site into a backup emergency shelter or backup municipal facility in case the primary shelters or facilities are unusable.	Complete	Installed - similar issues to that of the highway garage - one was also installed community center
21	Install a Combined Heat and Power system at the High School (a critical facility) and pursue development of this site into a backup emergency shelter or backup municipal facility in case the primary shelters or facilities are unusable.	Remove	Nothing implemented - wanted to see how other locations went
22	Install a Combined Heat and Power system at the WWTF.	Remove Possibly	Installed - similar issues to that of the highway garage

#	Description	Status	Notes
23	Reconstruct Nursery Road Bridge to widen waterway opening and mitigate flooding issues.	Removal - Integrate This Issue into The Narrative	Not aware of any issues.

4.3 Prioritization of Strategies and Actions

The STAPLEE method, described in the Multi-Jurisdictional document, was used to score mitigation activities. The STAPLEE matrix in Appendix A provides the total scores. Actions have been further prioritized based on implementation cost, project urgency, and municipal and public input. The strategies below are presented in priority order, with qualitative priority levels listed for each.

4.4 Mitigation Strategies and Actions Implementation Table

The Town proposed to initiate several new mitigation actions for the upcoming five years. Additionally, a number of actions from the previous planning period are being carried forward or replaced with revised actions. These are listed below.

APPENDIX A

Appendix A: STAPLEE Matrix

Action #	Action Description	Responsible Entity	Cost Range	Funding Sources	Timeframe	Community Priority	Type of Action	Hazard	Social Benefit	Social Cost	Technical Benefit	Technical Cost	Admin Benefit	Admin Cost	Political Benefit	Political Cost	Legal Benefit	Legal Cost	Economic Benefit	Economic Cost	Environ. Benefit	Environ. Cost	STAPLEE Score
NCN-01	Ensure annual consultant lead MS4 presentation includes information about business chemical management for hazard resilience.	DPW	\$0 - \$25,000	Operating Budget	Annually in 2027, 2028, 2029, 2030, and 2031	Med	Education & Awareness	Multiple Hazards	1	0	1	0	1	1	0	0	0	0	1	0	1	0	6
NCN-02	Compare local floodplain regulations with Revised State Model Flood Regulations to identify opportunities for improved consistency when adopting the new FEMA maps for the Saugatuck, Southwestern CT, and Housatonic studies. Ensure that freeboard is	Planning	\$0 - \$25,000	Operating Budget	2026 or when directed by the State NFIP Coordinator	High	Prevention	Flooding	1	0	1	0	1	0	1	0	1	0	1	0	1	0	9

Action #	Action Description	Responsible Entity	Cost Range	Funding Sources	Timeframe	Community Priority	Type of Action	Hazard	Social Benefit	Social Cost	Technical Benefit	Technical Cost	Admin Benefit	Admin Cost	Political Benefit	Political Cost	Legal Benefit	Legal Cost	Economic Benefit	Economic Cost	Environ. Benefit	Environ. Cost	STAPLEE Score
	consistent with the State Building Code.																						
NCN-03	Continue working with the state on addressing drainage issues on Old Stamford Road / Route 106 and remain an active participant throughout the ongoing evaluations occurring lead by State consultants.	DPW	\$25,000 - \$50,000	Capital Improvement Plan, FEMA HMA, CT DOT	2026-2028	High	Structural Projects	Flooding	1	0	1	0	1	1	1	0	1	0	1	1	1	0	6
NCN-04	Develop a drainage improvement plan for Waveny Park to explore flood mitigation and drainage options to reduce downstream flooding. Ensure the plan evaluates discharge points of concern and the results of wetland	DPW	>\$1M	Capital Improvement Plan, FEMA HMA, STEAP	2027-2029	Med	Natural Resources Protection	Flooding	1	0	1	0	1	1	1	0	0	0	1	1	1	0	5

Action #	Action Description	Responsible Entity	Cost Range	Funding Sources	Timeframe	Community Priority	Type of Action	Hazard	Social Benefit	Social Cost	Technical Benefit	Technical Cost	Admin Benefit	Admin Cost	Political Benefit	Political Cost	Legal Benefit	Legal Cost	Economic Benefit	Economic Cost	Environ. Benefit	Environ. Cost	STAPLEE Score
	outfall assessment along Route 106.																						
NCN-05	Install a Combined Heat and Power system at the WWTF.	DPW	\$100,000 - \$500,000	Capital Improvement Plan, FEMA HMA, CWSRF	2029-2030	Low	Water & Wastewater Utility Projects	Multiple Hazards	1	0	1	0	1	0	0	0	0	0	1	1	1	0	5
NCN-06	As the opportunity arises, collaborate with CIRCA on the "Resilient Connecticut" project to advance further study in areas with flood and extreme heat risks.	BOS	\$0 - \$25,000	Operating Budget plus CIRCA funds from State and	2028-2030	Low	More than one category	Multiple Hazards	1	0	1	0	1	1	1	0	0	0	1	0	1	0	7

Action #	Action Description	Responsible Entity	Cost Range	Funding Sources	Timeframe	Community Priority	Type of Action	Hazard	Social Benefit	Social Cost	Technical Benefit	Technical Cost	Admin Benefit	Admin Cost	Political Benefit	Political Cost	Legal Benefit	Legal Cost	Economic Benefit	Economic Cost	Environ. Benefit	Environ. Cost	STAPLEE Score
				Federal sources																			
NCN-07	Continue to participate in the WestCOG program that provides outreach to repetitive loss property owners.	Planning	\$0 - \$25,000	Operating Budget and COG general services budgets	Annually in 2026, 2027, 2028, 2029, and 2030	Medium	Property Protection	Flooding	1	0	1	0	1	0	1	0	0	0	1	0	1	0	8
NCN-08	Work with WestCOG to update the mitigation status of repetitive loss properties.	Planning	\$0 - \$25,000	Operating Budget and COG general services budgets	2029	Medium	Property Protection	Flooding	0	0	1	0	1	0	0	0	1	0	1	0	0	0	6

Action #	Action Description	Responsible Entity	Cost Range	Funding Sources	Timeframe	Community Priority	Type of Action	Hazard	Social Benefit	Social Cost	Technical Benefit	Technical Cost	Admin Benefit	Admin Cost	Political Benefit	Political Cost	Legal Benefit	Legal Cost	Economic Benefit	Economic Cost	Environ. Benefit	Environ. Cost	STAPLEE Score
NCN-09	Work with Aquarion Water Company to enforce mandatory twice-per-week irrigation schedule.	BOS	\$0 - \$25,000	Operating Budget	2027-2031	Low	Education & Awareness		1	0	1	0	1	1	0	0	0	0	0	0	1	0	4