Naugatuck Valley Council of Governments
Hazard Mitigation Plan Update
2021 – 2026

Municipal Annex
for

SEYMOUR, CT

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MMI #3211-29

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1.0 INTRODUCTION

1.1 Purpose of Annex

This Hazard Mitigation Plan (HMP) annex provides 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 Naugatuck Valley Council of Governments (NVCOG) Multi-Jurisdictional Hazard Mitigation Plan. This annex is designed to supplement the information presented in the Multi-Jurisdictional HMP with more specific local detail, 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 and damage to life and property will also reduce the social, emotional, and economic disruption associated with a natural disaster.

1.2 Planning Process

The HMP local coordinator, Thomas Eighmie, provided comments and feedback via direct communication with the consultant for the purposes of initial data collection and review of necessary updates for this document.

Additional input was provided at the two regional municipal staff workshops, held on November 18, 2020, and February 3, 2021.

Public input collected at public workshops and through an online survey have also informed development of this HMP update.

1.3 Physical Setting

Seymour lies within the region of Connecticut called the "Naugatuck River Valley," which extends from Torrington to Derby and includes the city of Waterbury. The Route 8 corridor and the Waterbury branch of the Metro-North railroad line span this region. The "Lower Naugatuck Valley" is sometimes known to include the towns of Oxford, Bethany, Beacon Falls, and Woodbridge in addition to Ansonia, Derby, and Seymour.

In general, the topography of the region increases in elevation moving from the shorelines of the major rivers (the Housatonic and Naugatuck Rivers, which are nearly at sea level) to the east and/or west of either river. Within the region, elevations of 500 feet or greater are found along western and southwestern Seymour and western Shelton while there are a few other smaller, more concentrated areas of this elevation in northern and eastern Seymour and northeastern Ansonia.

Seymour has a peak of approximately 640 feet in the southwestern part of the town on Great Hill along Route 334/Great Hill Road. The areas with greatest relief are found in southwestern Seymour (at Great Hill) where elevations of 630 feet to 640 feet can be found.

1.4 Land Cover

A high-density industrial center was developed in the 19th and 20th centuries in downtown Seymour. A decrease in developed land cover is evident with greater distance from either river. The majority of the rural and farmland cover is found in southwest Seymour. Despite its urban core, the Town is suburban on the whole, with populations that flourished during the last century as Connecticut's highway network was superimposed on the Town's historical industrial center.

The northern portion of Seymour is predominantly forested. Agricultural land use is distributed sparsely throughout Seymour. Although residential land uses are interspersed throughout the Town, higher density residential and nonresidential land uses are situated near the Naugatuck and Housatonic Rivers and the Route 8 corridor.

Table 1-1 summarizes 2015 land cover data which was derived from satellite imagery. Areas shown as turf and grass are maintained grasses such as residential and commercial lawns or golf courses. According to this data, about 53% of Seymour is forested and approximately 28% is developed.

Table 1-1: 2015 Land Cover by Area

Land Cover	Area (acres)	Percent of Community
Developed	2,683.6	28.06%
Turf & Grass	1,021.8	10.68%
Other Grass	169.4	1.77%
Agricultural Field	201.8	2.11%
Deciduous Forest	4,492.3	46.97%
Coniferous Forest	471.3	4.93%
Water	318.2	3.33%
Non-Forested Wetland	8.0	0.08%
Forested Wetland	91.4	0.96%
Tidal Wetland	0.0	0.00%
Barren	107.3	1.12%
Utility Row	0.0	0.00%
Total	**9,565**	**100%**

Source: UCONN Center for Land Use Education and Research (CLEAR)

1.5 Geology

Geology is important to the occurrence and relative effects of natural hazards such as floods and earthquakes. Thus, it is important to understand the geologic setting and variation of bedrock and surficial formations in Seymour.

The City is located in the northeastern part of the Appalachian Orogenic Belt, also known as the Appalachian Highlands, which extend from Maine southward to Mississippi and Alabama. The Appalachian Highlands were formed when Pangaea assembled during the late Paleozoic era. The region consists primarily of schist,

granulite, and gneiss lying in fairly diagonal bands stretching from northeast to southwest in the same general orientation as the region. This bedrock is cut through by numerous thrust faults.

One main fault, the "East Derby Fault," is oriented from northeast to southwest and runs to the east of Route 8 through the eastern portion of Ansonia, Derby, and Shelton. Upon reaching the Shelton town line, the fault and the roadway are generally positioned in the same orientation from northeast to southwest. The East Derby Fault stretches from Bethany southwest to Bridgeport over a span of approximately 16.25 miles. The fault is classified as "FTO," an overturned thrust fault, and is currently inactive. There is one geologic contact (classified as "C") that branches off the East Derby Fault in Shelton.

Glaciers began forming in the northern hemisphere about three million years ago. Since then, the southernmost portions of these glaciers covered the region on at least two occasions. At the end of the ice age, the last of the glaciers' mineral holdings were released with the melting ice. The region's different formations born of bedrock while exposed to hydrological, atmospheric, and glacial processes include glacial till, **stratified drift**, rivers and lakes, outwash plains, and coastal formations.

Stratified drift formations were deposited in valleys by glacial streams. These valleys were later inherited by the larger of our present-day streams and rivers. Thus, stratified drift is generally coincident with inland floodplains.

The amount of stratified drift also has bearing on the relative intensity of earthquakes and the likelihood of soil subsidence in areas of fill.

1.6 Drainage Basins and Hydrology

The City of Seymour straddles the Naugatuck River, and as such falls predominantly withing the Naugatuck River subregional watershed. The western side of the City drains directly into the Housatonic River. In the northern part of Seymour, at Seymour center, Bladens River flows into the Naugatuck from the east, and Little River flows into the Naugatuck from the west.

Other Watercourses in Seymour – The Bladens River, Rimmons Brook, Little River, Nickel Mine Brook, Muds Brook, Beaver Brook, and Kinneytown Brook and unnamed tributaries and streams all flow toward the Naugatuck River. Spruce Brook, Four Mile Brook, and Great Hill Brook and some unnamed tributaries and streams flow toward the Housatonic River.

1.7 Climate and Climate Change

In Seymour, the summers are warm and wet, the winters are freezing, and it is partly cloudy year round. Over the course of the year, the temperature typically varies from 21°F to 81°F and is rarely below 7°F or above 88°F.

The warm season lasts for 3.5 months, from June 2 to September 17, with an average daily high temperature above 72°F. The hottest day of the year is July 21, with an average high of 81°F and low of 65°F. The cold season lasts for 3.3 months, from December 3 to March 13, with an average daily high temperature below 44°F. The coldest day of the year is January 29, with an average low of 21°F and high of 35°F.

The wetter season lasts 3.5 months, from May 4 to August 18, with a greater than 29% chance of a given day being a wet day. The chance of a wet day peaks at 36% on May 30. The drier season lasts 8.5 months, from August 18 to May 4. The smallest chance of a wet day is 23% on January 29.

The most rain falls during the 31 days centered around June 4, with an average total accumulation of 3.9 inches. The snowy period of the year lasts for 5.1 months, from November 9 to April 13, with a sliding 31-day liquid-equivalent snowfall of at least 0.1 inches. The most snow falls during the 31 days centered around January 26, with an average total liquid-equivalent accumulation of 1.0 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, which was developed by the University of Connecticut (UConn) Atmospheric Sciences Group, 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 CO_2 emission scenario (RCP8.5).

Temperature

Annual temperatures have been increasing throughout Connecticut and is projected to continue to do so in the future. By mid-century, 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 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 a 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 10% annual-chance storm in New Haven County is 5 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 10% annual-chance storm in Seymour as 4.98 inches.

The NOAA Atlas 14, released on September 30, 2015 puts the 24-hour rainfall amount for a 10% annual-chance storm in Seymour at 5.64 inches.

These precipitation amounts, and more details, are summarized in Table 1-2, below.

Table 1-2: 24-Hour Rainfall Amounts by Annual-Chance Occurrence

Source	24-Hour Rainfall Amount (inches) by Annual-Chance Occurrence		
	10%	4%	1%
Technical Paper No. 40	5.0	5.6	7.1
NRCC	5.0	6.2	8.7
NOAA Atlas 14	5.6	6.9	8.8

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 Seymour can expect the 24-hour rainfall amount for a 10% annual-chance storm to be around 5.4 to 6.1 inches or greater.

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

1.8 Development Trends

The 2010 U.S. Census reported a population in Seymour of 16,508 individuals. U.S. Census Bureau estimates for 2019 show a population around 16,880 individuals, an increase from 2010 of 2.3%. The Connecticut State Data Center predicts that population will increase by 8.8% through 2025 to an estimated population of 3,080 individuals.

According to the Connecticut Data Collaborative, the number of annual housing permits in Seymour decreased slightly over the last decade. The number of permits issued in 2010 and 2011 was 22 and 17, respectively, while 3 permits were issued in 2016, and 8 permits were issued in 2017. On average, 21 housing permits were issued each year in Seymour between 2010 and 2017. The Town saw a virtual halt in development during the economic downturn beginning in 2008, similar to residential and commercial development trends across the state and the rest of the United States.

According to the U.S. Census Bureau, the overall number of housing units in Seymour dropped by approximately 6-percent between 2010 and 2019, from 6,968 units in 2010 to 6,573 units in 2019. In 2019, the housing stock was made up of approximately 67% single-unit structures, 11% two-unit structures, 22% multi-unit structures, and 0% mobile-homes or other types of structures.

According to the Connecticut Office of Policy and Management, Seymour's 2019 Total Equalized Net Grand List was valued at $1,221,000,000. The equalized net grand list is an estimate of the market value of all taxable property in the municipality, and gives some indication of the value of property at risk in the event of a major natural disaster.

Additional information can be found in the 2019 Connecticut Economic Resource Center profile for Seymour, included as Appendix C.

The 2016 POCD for Seymour highlights several areas for economic development:

- The Franklin Street area is being considered for a new Metro North Waterbury line train station. If a new train station is built here, Transit Oriented Development (TOD) projects may be pursued.
- The former Seymour Lumber and Housatonic Wire site is a brownfield which has been remediated for development. It has been identified as another spot for TOD mixed use housing and commercial units.

- There is desire for Downtown Seymour to be redeveloped with more restaurants with sidewalk table services and greenway trails, as well as mixed use development. The Plan identifies the area under Route 8 also has development potential.
- South Derby Avenue is primarily an industrial area with some retail. The Tri-Town Plaza has been cited by many residents and the Town as an area desired for redevelopment.
- In the Housatonic River and Route 34 area, the POCD recommends that the zoning be revised and sewer service extended to allow more commercial and residential development. There is a possibility for inter-municipal cooperation if Seymour and Derby could agree on the extension of the Derby sewer service to this area of Seymour.
- 84 New Haven Road has been identified as a desirable location for new affordable housing for the elderly population. The Plan specifies that the town prefers the buildings be built with sustainable methods and design.

According to the 2019 NVCOG Transit Oriented Development Scenario Report, approximately 53 acres of vacant or underutilized land have TOD/redevelopment potential near the Seymour Metro North (Waterbury Line) station and within the downtown. If redeveloped and fully infilled, this land in the center of Seymour could yield a total TOD development mix of some 825 housing units and over 900,000 square feet of commercial building area mostly within a half-mile of the train station. As noted above, this includes a location just north of the downtown on the other side of the Naugatuck River where the Seymour Metro North station may be relocated to as part of a potential new TOD District at some point in the future.

Residential development in the Seymour is concentrated along the Route 8 corridor and the Naugatuck and Housatonic Rivers. On the whole, almost all developable parcels surrounding the Route 8 corridor within Seymour have been developed to date. Due to the smaller land area size of the Town, developable parcels are limited overall.

Three residential and four commercial/industrial developments are at different stages in Seymour. Of the three residential developments, the largest is in the northeast corner of Seymour near the Beacon Falls-Seymour town line and is undergoing construction while a townhouse development is awaiting a sewer system along the Housatonic River in the southwestern portion of town. Finally, a small subdivision has been approved for 2012 construction in the northern part of the downtown section of Seymour to the west of the Naugatuck River and Route 8.

An inn and banquet hall plans to construct a convention center in the same area as the approved townhouse development and is also awaiting the installation of a sewer system before advancing to construction. Additionally, an expansion of the current restaurant/banquet hall facility is in the plans. A small commercial/retail development in the same area of town has been approved while another small commercial development was approved along Route 67 to the east of downtown. A single building is being constructed in the northeastern section of Seymour near the Bethany and Woodbridge town lines.

Summary

Recent development in Seymour is primarily limited to redevelopment of previously developed sites, or infill development; this type of development has not caused a significant increase in the community's vulnerability to natural hazards. Continuation of recent development trends in Seymour may increase overall community exposure to natural hazards in the future. Balancing development with continued improvement of hazard mitigation capabilities and enforcement of zoning regulations and building codes can help prevent an increase in natural hazard risks.

1.9 Historic and Cultural Resources

Historic and cultural resources include sites, structures, and objects that are significant in history, architecture, archaeology, engineering, and culture. These resources grow economies and enhance 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 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.

Historic resources in Seymour near flood sources may be damaged during flooding or other hazard events.

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 operations plans to prevent accidental damages during recovery efforts

Specific actions to mitigate natural hazard risks to historic resources are listed at the end of this Annex.

1.10 Social Vulnerability Index

By evaluating local social vulnerabilities, a community can identify populations that may be more vulnerable to natural hazards, and implement actions to better respond to the needs of those populations. The Center for Disease Control and Prevention (CDC) uses 15 factors extracted from census data to calculate a Social Vulnerability Index (SVI) for communities. The SVI factors fall into four categories:

- socioeconomic status
- household composition and disability
- minority status and language
- housing type and transportation

Seymour is considered to have a Moderate to Medium level of social vulnerability, with a higher vulnerability score for the SVI category of Housing Type & Transportation. In other words, a particular challenge in Seymour may include the presence of lower-quality housing, or lack of access to transportation for evacuation.

2.0 MUNICIPAL CAPABILITIES

2.1 Governmental Structure and Capabilities

2.1.1 Municipal Departments and Commissions

Seymour is managed by a Board of Selectmen with a First Selectman appointing board members.

The First Selectman oversees many of the municipal departments, commissions, and boards and is directly responsible for appointing members of many commissions and boards. Appropriate municipal departments, commissions, and boards are involved with natural hazard mitigation. The following subsections describe general departmental responsibilities, and duties related to natural hazard mitigation within the Town. Where applicable, one or more of the six types of mitigation (prevention, property protection, natural resource protection, structural projects, emergency services, and public education) are identified as relevant for each department.

Public Works Department and Commission

In Seymour, the Public Works and Highway Department are under the general supervision of the Board of Selectmen. These departments are responsible for planning, organizing, and administering the public works operations as well as managing the public works staff and budget. Responsibilities include directing highway construction and maintenance procedures.

As is common throughout Connecticut, the Public Works Department is often charged with implementing numerous structural projects that are related to hazard mitigation. Specifically, roadway/infrastructure maintenance and complaint logging/tracking are the two primary duties of the Public Works Department. For example, the Public Works Department tracks, plans, preparse for, and responds to flooding, inundation, and/or erosion of roads and infrastructure such as the sewer pumping station and the wastewater treatment plants. The Public Works Department also conducts snow removal and deicing on roads; tree and tree limb maintenance; and the appropriate maintenance and upgrades of storm drainage systems to prevent flooding caused by rainfall.

Because of the duties described above, Public Works Department personnel are often the de facto first responders during emergencies. The Public Works Department must maintain access for the Police and Fire Departments to respond to emergencies.

Within Seymour, the Public Works Commission is appointed by the Board of Selectmen. Collectively, the commissions are charged with the following:

- Management and oversight of the Public Works Department
- Development of a proposed budget estimating anticipated expenditures and revenues for the operations of the Public Works Commission for each fiscal year
- Review of the municipality's needs with respect to public works and making such recommendations to the Board of Selectmen and other municipal agencies and departments as it deems appropriate

- Establishment of regulations for the effective operation of the Public Works Department including the duties of the department and its superintendent or director with respect to construction and maintenance of municipal buildings, highways, sidewalks, sewers and drains, the care of trees and grounds, collection and disposal of garbage and rubbish, and maintenance of apparatus and equipment used by the Department of Public Works
- Review and approval of the department's maintenance and repair of such other apparatus and equipment as may be used by other agencies or departments of the municipality upon request of such agencies or departments

Building and Engineering Departments

The Building Inspector Seymour administers the Town's building inspection program adhering to and enforcing all code requirements of the State of Connecticut relating to building construction. Additional responsibilities include administering and enforcing all related state codes for the safety, health, and welfare of persons and properties in the municipality, supervising departmental policies and procedures, and providing technical assistance to municipal officials.

Each Building Inspector has a unique responsibility when it comes to hazard mitigation as he or she is responsible for overseeing a number of codes such as those related to wind damage prevention as well as those related to inland flood damage prevention. Although other departments and commissions may review development plans and develop or revise regulations, many important types of pre-disaster mitigation are funneled through and enforced by the Building Inspector's Office. For example, the Building Inspector's Office enforces standards for floodproof construction and building elevations, maintain elevation certificates, and enforce building codes that protect against wind and fire damage. Thus, the types of mitigation that are administered by the Building Inspector's Office includes prevention and property protection.

The Town Engineer plans, directs, and coordinates engineering contracts and construction projects, including bridges, sanitary, and different developments. The Engineer provides technical consultation to municipal boards and commissions and serves as the municipal liaison with various state agencies. As such, the Engineer will often need to review issues related to drainage, flood conveyance, and flood mitigation and related elements of structural hazard mitigation.

Fire Department and Emergency Management Department

The Fire Department and Emergency Services Department are the primary entities involved with hazard mitigation through emergency services in the Town. The EMDs are the primary municipal contacts for this HMP.

Police Department

Typical day-to-day duties of the Police Department includes crime prevention, criminal investigations, traffic enforcement, motor vehicle accident investigations, and patrols. Duties related to natural hazard mitigation include planning and coordination of personnel, equipment, shelters, and other resources necessary during an emergency. The types of mitigation that are directly administered by the Police Department include

mainly emergency services and public education. Communication and coordination with the Fire Department is critical before, during, and after natural hazard emergencies.

Planning Department

Planning and Zoning Commissions and municipal planning or land use staff are in charge of planning provide assistance to other applicable departments within the municipality, including the Building and Engineering personnel, and are responsible for housing and economic development planning. The Zoning Enforcement Officers/Inland Wetlands Enforcement Officers enforce the zoning regulations and are the administrators of the inland wetlands regulations on issues of zoning compliance.

Because the Planning staff assist the applicable commissions with administration of the Zoning Regulations, Subdivision Regulations, and Inland Wetland Regulations (described below in Section 2.8), the municipal departments are responsible for elements of almost all six facets of mitigation (prevention, property protection, natural resource protection, structural projects, emergency services, and public education).

Commissions Related to Hazard Mitigation

In addition to the Public Works Commission and Emergency Management Committee described above where applicable, several commissions are involved with hazard mitigation:

- Conservation Commission – Charged with the development, conservation, supervision, and regulation of natural resources and water resources (hazard mitigation through natural resource protection)
- Inland Wetlands and Watercourses Commission – Charged with implementing and enforcing all provisions of the Connecticut General Statutes as regards the Inland Wetlands and Watercourses Act (hazard mitigation through prevention, natural resource protection, and structural projects)
- Planning and Zoning Commission – Charged with establishing, implementing, and overseeing planning and zoning regulations as provided by the Connecticut General Statutes (hazard mitigation through prevention, property protection, natural resource protection, structural projects, emergency services, and public education)
- Public Works Commission – As noted above

2.1.2 Plans and Regulations

Plans of Conservation and Development

The Seymour Planning and Zoning Commission adopted the most recent update to the POCD in 2002. The POCD is organized into six sections that cover conservation, development, and infrastructure strategies and recommendations. Section 3 identifies SFHAs, slopes in excess of 25%, wetlands as "significant conservation areas," and 500-year floodplains as "important conservation areas." The listed conservation strategies for natural resources and open space are as follows:

- Continue to protect ground water quality and surface water quality throughout Seymour.
- Continue to encourage the 100-foot regulated upland review areas.

- Monitor areas served by septic system to protect ground water supplies.
- Encourage more wildlife enhancement programs such as the fish walk around the Great Falls.
- Encourage the identification of hilltops and consider adopting regulation to preserve the hilltops.
- Encourage minimizing timber harvesting in environmentally sensitive areas.
- Consider adopting aquifer protection regulation to protect water quality.
- Tie both existing and new open space and recreational areas together into an integrated greenbelt system.
- Identify vacant land along major rivers for the purpose of future river greenways.
- Focus on preserving environmentally sensitive land through the purchase of open space.
- Support of the local land trust.
- Establishing a fund for open space purchases.
- Educate property owners on their eligibility for PA-490 designations.

Strategies for utilities include "Continue to encourage buried utilities in all types of development, including the downtown."

Many of the above strategies are considered consistent with the goals of this HMP.

Emergency Operations Plan

The Setmour EOP was most recently updated in 2011.

Sections I and II of the Town's EOP provide its purpose and assumptions. Section III of each EOP describes mitigation, increased readiness, emergency phase operations, and recovery phase operations. The EOP may list snowfall, ice storms, blizzards, hazardous material incidents, aircraft accidents, hurricanes, tornadoes, flooding, electrical storms, major fires, energy/fuel shortages, forest fires, dam failures, water contamination, earthquakes, and highway accidents as hazards covered by the EOP. Specific mitigation measures typically include the following:

- Carry out hazard mitigation activities appropriate to the functions of departments, agencies, and offices
- Restrict development in hazardous areas consistent with the degree of risk
- Promote fire prevention
- Work with commerce and industry to improve hazardous materials storage, use, transport, and disposal
- Encourage public safety at all levels
- Maintain a stock of sandbags
- Develop and maintain all-hazard evacuation and mass care annexes with predesignated evacuation routes and shelter facilities
- Maintain mutual aid agreements with neighboring communities
- Maintain a radiological protection reference guide

Section IV of the EOP sets and describes roles and responsibilities. The EMD coordinates with the Chief Elected Official and other agencies. Roles of the Fire Department, Police Department, Health District, Public Works Department, and other specific people are also described.

Section V of the EOP describes administration and logistics. This section also describes the duties of the American Red Cross (ARC) and Salvation Army such as provision of food, clothing, and various types of assistance. Section VI of the EOP describes plan maintenance. Section VII of each provides various attachments, such as templates for declaring an emergency.

Flood Damage Prevention Code

Flood damage prevention is covered by Chapter 7 of the Town of Seymour Code, adopted October 2010. The code sets forth the policies for administration and the detailed standards for flood damage prevention, which are generally a duplicate of the NFIP regulations. The code requires compensatory storage in flood zones and also requires that floodplain encroachments shall not result in any ("0.00 feet") increase in base flood elevations.

Zoning Regulations

The Zoning Regulations were approved August 2000 and amended January 2010.

- Section 7.6 describes requirements related to drainage. If grading or construction is altered, no increase of runoff is allowed. Detention basins that collect water from streets shall not be on private lots.

- Section 15 describes the requirements for soil erosion and sediment control and the need for developing a soil erosion and sediment control plan.

- The Flood Plain district is an overlay zone. Section 16 describes the district. This section of the Zoning Regulations clearly states that the standards for construction shall be as defined in the Flood Damage Prevention section (Chapter 7) of the town code. This section also prohibits development that increases the base flood elevation more than one foot, except in floodways where there is no allowable increase.

Subdivision Regulations

The Seymour Subdivision Regulations are administered by the Planning and Zoning Commission. These regulations have been revised through 1992. Components of the regulations that directly or indirectly address hazard mitigation (flooding, public safety, etc.) are listed below:

- Section 3.3 describes the need for a soil erosion and sediment control plan.

- Section 4.3 describes streets. Subdivisions containing more than 20 lots shall have two connections to existing streets. Dead-end streets shall not exceed 700 feet in length. Widths of rights-of-way and paved widths are set as well.

- Section 4.5.4 (Detention) disallows a net increase in stormwater runoff from a site but allows such runoff if the site is within a "reasonable" distance of the Naugatuck River or Housatonic River, and a watershed analysis demonstrates downstream capacity.

- Section 8 (Flood Damage Prevention) requires that any subdivision in a flood hazard area must be designed to minimize flood damage; utilities must be designed to minimize flood damage; adequate drainage shall be provided; and base flood elevation must be indicated on plans.

Inland Wetland and Watercourses Regulations

The Inland Wetlands Commission is charged with administering the Inland Wetlands Regulations. These regulations are revised through September 2008. Section 3.2.4 of the regulations sets an upland review area of 100 feet. The regulations describe permit procedures, enforcement, appeals, etc.

2.2 Infrastructure

Transportation

The primary transportation routes into and out of the town are Routes 8, 115, 118, 313, 34, and 334 running generally north-south, and Route 67 running east-west. Other key roads include Skokorat St, Route 721, Bungay Road, Botsford Rd, and Derby Ave.

Seymour is served by the Valley Transit District and the CT Transit public bus systems. It is also served by Seymour Station, a commuter-rail stop on the Waterbury Branch of the Metro-North Railroad's New Haven Line.

Utilities

Public water in Seymour is provided by Aquarion Water Company and the South Central Connecticut Regional Water Authority, as well as a handful of Non-Community Water Systems. Some residents and businesses rely on private well water. The Seymour Sewer Authority is run by a private company called Veolia Water North America.

Eversource is the primary electricity provider in Seymour. There is no natural gas infrastructure in Town; residents rely on oil, propane, and wood.

According to geoISP (geoISP.com), access to Broadband Internet and Mobile Broadband (cellular) service is very limited in Seymour.

2.3 Critical Facilities and Emergency Response

Seymour has identified several critical facilities throughout the town, as summarized on Table 2-1 below.

Table 2-1: Critical Facilities

Facility	Location	Comment	Em. Power	Shelter	SFHA
Police Department	11 Franklin St	Em. Response	✓		✓*
Great Hill Hose Fire Company	140 Botsford Rd	**EOC**	✓		
Citizens Engine No. 2	26 DeForest St	Em. Response	✓		✓*
Seymour EMS	4 Wakeley St	Em. Response	✓		
Middle School	211 Mountain Rd	**Shelter**	✓	✓	
Paul E. Chatfield Elementary School	51 Skokorat St	**Shelter**	✓	✓	
Water Pollution Control Facility	723 Derby Ave	Sewer	✓		✓
Regional Water Authority Wellfield	Rte 34 East of Jefferson St	Water	✓		✓
Public Works	721 Derby Ave	Municipal	✓		✓
Smithfield Gardens (Assisted Living)	26 Smith St	Vulnerable Pop.	✓		
Shady Knoll Health Care (Assisted Living)	43 Skokorat St	Vulnerable Pop.			
Norman Ray House (Elderly Housing)	133 Walnut Street	Vulnerable Pop.			
Reverend Callahan House	32 Smith Street	Vulnerable Pop.			

Fire and Police Department Facilities

The Seymour Fire Department is a volunteer fire department and consists of two firehouses: Citizens Engine Company No. 2 located at 26 DeForest Street and Great Hill Hose Company located at 140 Botsford Road. Both location have generators. The Citizens Engine Company No. 2 is located in the FEMA 500-year flood zone. The Fire Department provides fire and rescue protection for residents and consists of approximately 150 volunteers. The Fire Department is managed by a Fire Chief and three Assistant Chiefs. The Fire Chief reports to the Board of Fire Commissioners whose members are appointed by the First Selectman.

The Seymour Police Department is located at 11 Franklin Street and is located in the 500-year flood zone. The Police Department employs a full-time force of 34 officers augmented by five part-time officers. There are two full-time civilians and five part-time civilians that provide ancillary services for the department. The department is overseen by a Board of Police Commissioners that are responsible for establishing policies and procedures.

Public Works Facilities

The Seymour Public Works facility located at 721 Derby Avenue is in a FEMA flood zone. Seymour is aware of this. The town needs to implement different flood mitigation techniques on the site to prevent future damages associated with flooding.

Shelters

Emergency shelters are considered to be an important subset of critical facilities as they are needed in emergency situations. These critical facilities are briefly described below.

Seymour currently has two ARC-recognized shelter. This facility is the Seymour Middle School, which is located at 211 Mountain Road. The Paul E. Chatfield Elementary School at 51 Skokorat Street is the Town's

second shelter; renovations completed in 2012, including installation of a full capacity generator, allowed this designation. Neither shelter is located in a flood zone.

Other Municipal Facilities

Seymour has two municipally owned facilities that are located in FEMA flood zones. These facilities are the Water Pollution Control facility at 723 Derby Avenue and the Public Works facility at 721 Derby Avenue. Both facilities are in the 500-year flood zone of the Naugatuck River.

These facilities would benefit from flood mitigation strategies such as elevation, berming, and other floodproofing procedures.

Health Care, Assisted Living, Daycare, and Special Needs Populations

These types of critical facilities are located within a flood zone. These facilities are as follows:

Evacuation Routes and Preparedness

Evacuation routes for the Town are maintained and understood by the EMDs. Evacuation routes are dependent on local conditions, and the communities must maintain flexibility in designating these routes. Therefore, this HMP is not an appropriate vehicle for modifying them. However, there are certain neighborhoods that are known to be at risk for impaired access during floods. These areas should be targeted for development of specific evacuation protocols

Certain critical facilities – those that house vulnerable populations and have a higher disaster risk than comparable facilities elsewhere – should also be targeted for development of site-specific evacuation plans or protocols.

Communications

Seymour relies on CodeRed and the Facebook and Twitter social networks for communicating emergency alerts to citizens. In addition, the Town uses radio, cable television, area newspapers, and the internet to spread information on the location and availability of shelters. Several of these information sources can be cut off due to power failure, so emergency personnel are also able to pass this information on manually.

3.0 FLOODING

3.1 Existing Capabilities

The Town has in place a number of measures to mitigate for flood damage. These include regulations, codes, and ordinances preventing encroachment and development near floodways; dams and levees; acquisitions and elevations of structures; and monitoring efforts and emergency services.

Regulations, Codes, and Ordinances

The municipal codes, Zoning Regulations, Subdivision Regulations, and Inland Wetland and Watercourses Regulations were described in detail in Section 2.1. The Planning and Zoning Commissions, Inland Wetlands and Watercourses Commissions, and the Building Officials are all charged with reviewing projects and developments in SFHAs as well as projects not located in SFHAs that will alter hydrology and runoff.

The Town has regulations that are at least as stringent as the NFIP regulations. A few of the provisions of these codes and regulations are especially notable relative to preventing flood damage:

The Town of Seymour has set 100-foot review areas for projects reviewed by the Inland Wetlands and Watercourses Commissions.

Bridge Replacements, Drainage, and Maintenance

The Public Works Department is in charge of the maintenance of drainage systems and perform clearing of catch basins, bridges, and culverts and other maintenance as needed. Drainage complaints are routed to the departments and recorded. The Town uses these reports to identify potential problems and plan for maintenance and upgrades.

Flood Watches and Warnings

The Town receives regular weather updates through DEMHS Region 3 email alerts and can also access the Automated Flood Warning System to monitor precipitation totals and river stage changes. The Connecticut DEEP installed the Automated Flood Warning System in 1982 to monitor rainfall totals as a mitigation effort for flooding throughout the state.

Warnings are particularly necessary for the Housatonic River below the Stevenson Dam as the flooding in this area can rapidly catch the riverfront neighborhoods off guard in Seymour. While these warnings have not always prevented a loss of property, they have prevented loss of life.

NFIP Participation

Seymour has participated in the NFIP since 07/03/1978. The Flood Insurance Rate Map (FIRM) for the community was most recently updated in 10/16/2013. Seymour does not participate in the FEMA Community Rating System (CRS) program.

According to FEMA, there are 58 flood insurance policies in force in Seymour as of 6/30/2019 with an insurance value of $12,340,200.

New Capabilities and Completed Actions

Seymour continues to maintain its strong flood mitigation capabilities.

Summary

In summary, the Town has primarily attempted to mitigate flood damage and flood hazards by restricting activities in floodprone areas and relying on existing flood control structures such as dams and levees. The former is primarily carried out through the Planning and Zoning Commission working with the Building Officials. The Town anticipates that a wider range of mitigation efforts will be utilized in the future, including additional elevations and acquisitions of floodprone structures.

3.2 Vulnerabilities and Risk Assessment

3.2.1 Vulnerability Analysis of Specific Areas

Flooding is known to occur along numerous watercourses in the Town. These areas are described below, grouped by drainage basin. Flood prone areas in the community today, as mapped by FEMA, are presented in Figure 3-1.

Housatonic River

Riverine flooding occurs downstream of the Stevenson Dam along the Housatonic River in Shelton, Seymour, and Derby. The floodprone section is from the Stevenson Dam (upstream of Shelton) to the Derby Dam, which spans the river at downtown Shelton and Derby.

Seymour's section of riverbank is at risk of flooding, but water levels must typically be very high for structures and roads to experience flooding.

Naugatuck River

The Naugatuck River is largely controlled by upstream flood control dams and the flood control system of levees and floodwalls in Ansonia and Derby. Areas behind the levees are designated as "Zone X Protected by Levee," but they can be flooded.

During Tropical Storm Irene, the floodgates on the Naugatuck River were reportedly closed for the first time in 47 years. The Housatonic River experienced backwater conditions in this area as a result of the incoming storm surge, which led to water moving northward up the Naugatuck River. The river also overflowed its banks in Seymour, leading to evacuations.

Beach Street/Bladens River

Two ponds at and upstream of the Kerite Dam are reportedly nearly full of silt and fine sediments and have little to no storage capacity. During large-scale rain events, when the water level rises above the Bladens River Dam upstream of the Kerite Dam, the water flows down Beach Street, sometimes flowing down Pearl and Day Streets. This water overtops the roads and some properties in the area.

Area where Bladens River can flood roadways; note high flow of 9/8/12

Bank Street/Little River

Properties along Bank Street in the area of Wire Company Dam #3 and Wire Company Dam #2 are reportedly subject to flooding as a result of high flows along Little River and poor drainage along Route 67. One RLP has historically been listed at the end of the Little River, but this building has been demolished, and the site is unoccupied.

Area where Little River can flood commercial property; note high flow of 9/8/12

Unnamed Watercourse at Walnut Street

A residence on Walnut Street has been repeatedly subject to flooding during large-scale rain events. According to town officials, Seymour has funded the replacement of a portion of property damage; however, the storm drainage in this area is in need of upgrading.

Unnamed Drainage Along Roosevelt Drive (Route 34)

Multiple homes are subject to flooding from hillside drainage during large-scale rain events in this area of town.

3.2.2 Vulnerability Analysis of Private Properties

In 2012, the software platform ArcGIS was utilized along with 2010 Microsoft Virtual Earth aerial photography to determine the number of structures located within the various floodplains within the Town. Seymour has 118 structures within the 100-year floodplain or floodway. According to that analysis, a total of 2,578 acres of land were located within the 100-year flood boundary, and an additional 1,090 acres of land were located within the 500-year flood boundary, in 2010.

According to FEMA, Seymour has zero Repetitive Loss Properties (RLP). Of those, zero are classified as Severe RLP. According to municipal staff, Seymour has had one RLP that has been vacated and demolished. The property was classified as commercial/ industrial use and located on River Street in a SFHA associated with Little River. Seymour will work with CT DEEP and FEMA to verify the RLP list.

3.2.3 Vulnerability Analysis of Critical Facilities

Three critical facilities in Seymour are located within a 1% annual-chance or 0.2% annual-chance floodplain. This includes facilities located in areas designated as X-Protected by Levee. Table 3-1 lists these critical facilities.

Table 3-1: Critical Facilities Located Within or Adjacent to Floodplains

Name or Type	Address	Flooding Source
Police Department	Franklin Street	Naugatuck River
Citizens Engine No. 2	DeForest Street	Naugatuck River
Regional Water Authority Wellfield	Route 34	Housatonic River

Although some of these facilities are protected by the Derby and Ansonia flood control systems, the potential exists that these critical facilities can become flooded any year.

Date Saved: 6/15/2021

Document Path: C:\Users\noahs\Documents\MMIArcGIS\Maps\NVCOG.mxd

Critical Facilities
- Care Facility
- Communications
- Community Center
- Emergency Response
- Fuel
- Government Services
- School
- Utility
- Vulnerable Population

Historic Sites
- Historic Sites

Flood Zone
- A
- AE
- Floodway
- X: 0.2% Annual Chance

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773

Flood Hazards in Seymour

NVCOG Hazard Mitigation Plan Update
Naugatuck Valley Council of Governments
47 Leavenworth Street, 3rd Floor
Waterbury, CT 06702

N

0 2,000 4,000
Feet

DATE 6/15/2021

141.3211.00029
PROJ. NO.

FIG. 3-1

4.0 HURRICANES AND TROPICAL STORMS

4.1 Existing Capabilities

Flooding

Existing capabilities appropriate for flooding were discussed in Section 3.0. These include the ordinances, codes, and regulations that have been enacted to minimize flood damage. In addition, various structures exist to protect certain areas, including dam and local flood protection projects.

Wind

Wind loading requirements are addressed through the state building code. The State Building Code has been amended several times in the past two decades. The 2005 Code was amended in 2009, 2011, and 2013. The code was then updated and amended in 2016, with the current code having been updated and effective as of October 1, 2018. The code specifies the design wind speed for construction in all the Connecticut municipalities. Effective October 1, 2018 the design wind speed for Seymour is 115 mph for a Category 1 event, 125 mph for a Category 2, and 135 mph for a Category 3, 4 or 5 hurricane event.

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. This wind speed could occur as a result of either a hurricane or a tornado in western Connecticut and southeastern New York. The American Society of Civil Engineers recommends that new buildings be designed to withstand this peak three-second gust.

Eversource, the local electric utility, provides tree maintenance near its power lines. The Town's Tree Warden performs tasks with variable responsibilities and resources as noted below:

- The Public Works Director holds the position of Tree Warden in the town.
- The Town has a boom truck and a chipper that is employed for tree maintenance.

Prior to severe storm events, the Town ensures that warning/notification systems and communication equipment are working properly and prepare for the possible evacuation of impacted areas.

New Capabilities and Completed Actions

Seymour continues to maintain its strong tropical cyclone mitigation capabilities.

Summary

Seymour mitigates hurricane and tropical storm damages through tree and limb maintenance, public alert and communications procedures, and enforcement of building code requirements related to high winds.

4.2 Vulnerabilities and Risk Assessment

Seymour is susceptible to both high winds and flooding from heavy inland precipitation caused by hurricanes. Wind damage is a risk throughout the Town, flooding is possible along rivers and in areas with poor drainage, and structures along the tidal portion of the Housatonic River below the Derby Dam are vulnerable to storm surge.

Of particular concern to the Town are the blockage of roads and the damage to the electrical power supply from falling trees and tree limbs. According to municipal officials, most areas within the Town are vulnerable to falling trees and limbs with the exception of the Town center where the number of trees is significantly lower.

The Town's housing stock consists of many historic buildings and homes greater than 50 and sometimes 100 years old, relatively younger buildings built before the 1990s when the building codes changed to mitigate for wind damage, and relatively recent buildings that utilize the new code changes. Since most of the existing housing stock in the municipality predates recent code changes, many structures are highly susceptible to roof and window damage from high winds.

According to Town officials, municipally owned critical facilities do not have wind-mitigation measures installed to specifically reduce the effects of wind. Thus, it is possible that many of the critical facilities in the Town are as vulnerable to damage from hurricane-force winds as other noncritical structures. Note that many critical facilities in the Town are not specifically designed to withstand hurricane-force winds. Newer critical facilities, such as the Seymour Police Department, are considered to be the most resistant to wind damage even if they are not specifically wind resistant for hurricane gusts.

Also of particular concern are the conditions of levees and dams that necessitate emergency planning during a high-precipitation hurricane event.

5.0 SUMMER STORMS AND TORNADOES

5.1 Existing Capabilities

Municipal responsibilities relative to summer storm and tornado mitigation and preparedness include:

- Developing and disseminating emergency public information and instructions concerning tornado, thunderstorm wind, lightning, and hail safety, especially guidance regarding in-home protection and evacuation procedures and locations of public shelters.
- Designating appropriate shelter space in the community that could potentially withstand lightning and tornado impact.
- Periodically test and exercise tornado response plans.
- Putting emergency personnel on standby at tornado "watch" stage.
- Providing all summer storm and tornado mitigation procedures and plans to the public in appropriate municipal buildings, on municipal websites, and through municipal social media platforms.

Warning is the primary method of existing mitigation 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.

Aside from warnings, several other methods of mitigation for wind damage are employed in Seymour as explained in Section 4. The Town has a Tree Warden and as-needed programs for tree trimming. Eversource has limited tree trimming maintenance programs in place. Utilities in new subdivisions must be located underground whenever possible in order to mitigate storm-related wind damage. The Public Works Department has the necessary equipment to clean up downed tree limbs and brush following major wind events.

In addition, the Connecticut State Building Code includes guidelines for the proper grounding of buildings and electrical boxes.

New Capabilities and Completed Actions

Seymour continues to maintain its summer storm mitigation capabilities. Its tree and limb removal procedures continue to be adequate, and it coordinates closely with Eversource on protecting power lines.

Summary

Seymour mitigates summer storm risks primarily through tree, limb, and debris management, emergency communications, and coordination with Eversource.

5.2 Vulnerabilities and Risk Assessment

Thunderstorms are expected to impact the Town at least 20 days each year. 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 Town is very high during any given thunderstorm. The risk of at least one hailstorm occurring in Town is considered moderate in any given year. The Town has moderate to high potential to experience tornado damage in the future.

Most thunderstorm damage is caused by straight-line winds exceeding 100 mph. Straight-line winds occur as the first gust of a thunderstorm or from a downburst from a thunderstorm and have no associated rotation. The risk of downbursts occurring during such storms and damaging the Town is believed to be moderate for any given year. All areas of the Town are susceptible to damage from high winds although more building damage is expected in the Town center and the densely populated neighborhoods surrounding them.

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 the Town 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.

In summary, the Town is at relative risk for experiencing damage from summer storms and tornadoes. Based on the historical record, only a few summer storms or tornadoes have resulted in costly damages to Seymour. Most damages are relatively site specific and occur to private property (and therefore are paid for by private insurance). For municipal property, Town budgets for tree removal and minor repairs are generally limited to handling routine summer storm damage. However, the EF1 tornado that caused minor property damage along a 0.5-mile path through eastern Shelton in 2009 and the EF1 tornado that struck Bridgeport in 2010 have raised awareness regarding the potential catastrophic damage such storms can cause and the possibility of one taking place within the area.

6.0 WINTER STORMS

6.1 Existing Capabilities

Capabilities specific to winter storms are those related to preparing plows and sand and salt trucks; tree trimming and maintenance to protect utilities, roads, and structures; and other associated snow removal and response preparations. The Tree Warden communicates with property owners the need for tree maintenance as necessary.

The Connecticut Building Code specifies that a weight of 30 pounds per square foot be used as the base "ground snow load" for computing snow loading for different types of roofs.

The Connecticut DOT works with Seymour's Public Works Departments to conduct the majority of plowing within the municipality. Within the Town, the Connecticut DOT plows Routes 8, 34, 67, 115, 188, 313, and 334. Private developments are responsible for their own plowing. Municipal roadways are plowed in the order of primary routes and bus routes to secondary routes as conditions permit.

New Capabilities and Completed Actions

Seymour continues to maintain its strong winter storm mitigation capabilities.

Summary

Seymour mitigates snow damages through implementation of road and building clearing protocols, enforcement of the State Building Code, and through the mitigation measures previously discussed for high wind events.

6.2 Vulnerabilities and Risk Assessment

High wind and loads from snow or ice can take down tree limbs or entire trees. Falling limbs and trees can block roads, cause power outages, and damage property. Additionally, there is a high propensity for traffic accidents during heavy snow and even light icing events. Roads may become impassable, inhibiting the ability of emergency equipment to reach trouble spots as well as the accessibility to medical and shelter facilities. Stranded motorists, especially senior and/or handicapped citizens, are at a particularly high risk during a blizzard.

7.0 GEOLOGICAL HAZARDS

7.1 Existing Capabilities

Due to the infrequent nature of damaging earthquakes or landslides, land use policies in the Town do not directly address these hazards. Landslides, slumps, and retaining wall failures that occur on private properties are considered to be the responsibility of the property owners. When such failures occur on municipal property or affect municipal utilities, then, generally, the Public Works Department is in charge of repairs.

Nevertheless, various regulations indirectly address areas susceptible to earthquake damage and landslides, and regulations help to minimize potential earthquake and landslide damage.

The POCD for Seymour makes reference to steep slopes in the "strategies" lists within the natural resources discussion, indicating that the community desires avoiding development on steep slopes. However, much of the Land available for development in the Town consists of steep slopes, and Town personnel will need to be careful in their review of development proposals.

New Capabilities and Completed Actions

Seymour continues to maintain its earthquake and landslide mitigation capabilities.

Summary

Seymour mitigates geological hazards through enforcement of zoning and subdivision regulations preventing development in higher risk areas. Other mitigation measures consist of general emergency response capabilities.

7.2 Vulnerabilities and Risk Assessment

Earthquake Vulnerabilities

Structures in areas underlain by alluvium or sand and gravel are at increased risk from earthquakes due to amplification of seismic energy and/or collapse. The areas that are not at increased risk during an earthquake due to unstable soils are those underlain by glacial till.

Areas of steep slopes can collapse during an earthquake, creating landslides. Seismic activity can also break utility lines, such as water mains and electric and telephone lines, and stormwater management systems. Damage to utility lines can lead to fires, especially in electric and gas mains. Dam failure can also pose a significant threat to developed areas during an earthquake.

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 6.0 damaging the region. Results are presented in the table below.

Table 7-1: Probability of a Damaging Earthquake

Time Frame (Years)	Probability of an Earthquake > Magnitude 5.0	Probability of an Earthquake > Magnitude 6.0
50	1% to 2%	<1%
100	4% to 6%	<1%
250	8% to 10%	2% to 3%
350	12% to 15%	2% to 3%

While the risk of an earthquake affecting the Town is relatively low over the short term, long-term probabilities suggest that a damaging earthquake (magnitude greater than 5.0) could occur and affect the Town. Despite the low probability of occurrence, earthquake damage presents a potentially significant hazard to the Town.

Landslide Vulnerabilities

The likelihood of a landslide occurring in the Town is considered to be moderate for any given year. Although direct landslide damage generally impacts only a small area on and at the base of the slope that has failed, utilities damaged by a landslide can have more of a widespread impact.

Landslides and slumps often occur near watercourses when slopes are undercut and become unstable. In areas where the drainage network is comprised only of sheet flow, roadways can act as watercourses and cause landlides. For example, when construction activities undermine the natural grade of a hill, the hillside can collapse.

All developed areas on steep slopes are considered vulnerable to landslides. These areas are found throughout the Town but are concentrated on the *peripheries* of the central business district or historic downtown area of Seymour. Most landslides in Seymour occur in these peripheral areas.

8.0 DAM FAILURE

8.1 Existing Capabilities

The Dam Safety Section of the Connecticut DEEP Inland Water Resources Division is responsible for administration and enforcement of Connecticut's dam safety laws. Dam safety laws are codified in Sections 22a-401 through 22a-411 of the Connecticut General Statutes. The statutes require that permits be obtained to construct, repair, or alter dams and that existing dams be inventoried and periodically inspected to assure that their continued operation does not constitute a hazard.

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.

Effective October 1, 2013, the owner of any high or significant hazard dam (Class B and C) must develop and implement an Emergency Action Plan (EAP). 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. The EAP must include inundation zone mapping, procedures for monitoring the structure during periods of heavy rainfall and runoff, and a system to alert local officials in the event of an emergency.

The CT DEEP also administers the Flood and Erosion Control Board (FECB) program, which can provide noncompetitive state funding for repair of municipality-owned dams. State statute Section 25-84 allows a municipality to form an FECB.

Actions Completed and New Capabilities

Seymour continues to maintain its capabilities for mitigating and responding to dam failure risks.

Summary

Seymour mitigates dam failure hazards primarily by supporting State Dam Safety Program efforts locally.

8.2 Vulnerabilities and Risk Assessment

While flooding from a dam failure generally has a moderate geographic extent, the effects are potentially catastrophic. 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

As of 2020, there were 25 DEEP-inventoried dams within Seymour. Nine of these dams had a Significant or High Hazard Potential rating. These dams are listed in Table 8-1 and shown in Figure 8-1.

Table 8-1: DEEP-Inventoried Dams in Seymour

Number	Name	Class	Owner
12401	GREAT HILL RESERVIOR DAM	C	Municipal
12402	PEAT SWAMP RESERVOIR DAM	C	Water Utility
12403	MIDDLE RESERVOIR DAM	B	Water Utility
12404	BLADENS RIVER DAM	B	Private Corporation
12405	KINNEYTOWN HYDRO DAM	B	Power Utility
12406	WIRE COMPANY DAM #2	BB	Private Corporation
12407	KERITE DAM	BB	Private Corporation
12408	HOADLEY POND DAM	B	Water Utility
12409	SOCHRIN POND DAM	B	Municipal
12410	SILVER LAKE DAM	B	Private
12411	CLARKS POND DAM	B	Private
12412	FILTRATION RESERVOIR DAM	A	Water Utility
12413	RIMMON DAM aka TINGUE DAM	BB	Private Corporation
12414	WIRE COMPANY DAM #3	A	Private Corporation
12415	AJELLO'S POND	BB	Private
12416	BUNGAY RESERVOIR DAM	AA	Water Utility
12417	SPONHEIMER POND DAM		Private
12418	BURZINSKI BROOK #3 DIVERSION		Water Utility
12419	KING BROOK DIVERSION DAM		Water Utility
12420	AERATION POND DAM		Water Utility
12421	TURNING DAM		Water Utility
12422	BURZINSKI BROOK #2 DIVERSION		Water Utility
12423	BURZINSKI BROOK #1 DIVERSION		Water Utility
12424	APRIL GARDENS		Private
12427	LEGION POOL DAM	A	Land Trust

DFA reports may not be on file at the CT DEEP for the following Class B and C dams:

- The Bladens River Dam (No. 12404) in Seymour owned by Beach Properties Ltd.
- The Kinneytown Dam (No. 12405) in Seymour owned by Kinneytown Hydro, Inc.
- The Sochrin Pond Dam (No. 12409) owned by the Town of Seymour in Seymour
- The Silver Lake Dam (No 12410) in Seymour owned by John Fanotto et al.
- The Clarks Pond Dam (No. 12411) in Seymour owned by Leonora Geaudreau

The following table summarizes the status of EAPs for the higher-hazard potential dams in Seymour:

Table 8-2: EAP Status of Higher-Hazard Dams

Number	Name	Class	EAP Status	EAP Status Date
12401	GREAT HILL RESERVIOR DAM	C	Review letter sent revisions needed	9/12/2017
12402	PEAT SWAMP RESERVOIR DAM	C	Acceptance Letter Sent	9/11/2018
12403	MIDDLE RESERVOIR DAM	B	Acceptance Letter Sent	11/14/2019
12404	BLADENS RIVER DAM	B	Acceptance Letter Sent	12/13/2018
12405	KINNEYTOWN HYDRO DAM	B	FERC Regulated Dam No Review Needed	7/21/2017
12408	HOADLEY POND DAM	B	Acceptance Letter Sent	3/24/2021

Number	Name	Class	EAP Status	EAP Status Date
12409	SOCHRIN POND DAM	B	Updated EAP Not Received	1/22/2018
12410	SILVER LAKE DAM	B	Updated EAP Not Received	1/22/2018
12411	CLARKS POND DAM	B	Acceptance Letter Sent	10/18/2017

Seymour should work to ensure EAPs are up-to-date.

Great Hill Reservoir Dam (No. 12401)

Great Hill Reservoir Dam is located near the municipal border between Oxford and Seymour in northwestern Seymour on the Fourmile Brook. The Great Hill Reservoir Dam was originally created for water supply. The dam is now owned by Seymour, and the water-impounded water body is no longer used for water supply. The dam is 37 feet in height at its centerline and has a total length of 210 feet. The dam is a concrete gravity type dam with a concrete gravity spillway that is set in bedrock 30 feet above the streambed with a length of 40 feet and a freeboard of 6.3 feet. The impoundment created is the Great Hill Reservoir, which extends from northwest Seymour to southern Oxford. The most recent dam failure inundation mapping is dated 1983.

If the dam were to fail, according to 1983 mapping, flooding would occur approximately 4,500 feet downstream, including four homes and one daycare center along Route 188 and Route 34. Homes and daycare facilities would also be inundated from two to four feet above sill level while the Route 188 and Route 34 roadways would be overtopped approximately three to seven feet. This flooding is according to a discharge of 22,700 cfs.

Peat Swamp Reservoir Dam (No. 12402)

Peat Swamp Reservoir Dam is located in southeast Seymour on Beaver Brook just to the north of Maple Street (Route 313). The dam is owned by the Regional Water Authority (RWA). The dam was installed to create a source of water supply and is still used as such. It was noted in the files at the Dam Safety Section that the EOP is held on file at RWA offices in Volume 2 ECP, Section 4 Flood Response Plan of the Water Supply Plan dated September 2009. The EOP described in the Dam Safety Section files describes that the EOP is dated July 2009.

The dam's height is 42 feet with a linear length of 318 feet and a maximum discharge of 600 cfs, and the Peat Swamp Reservoir has a surface area of approximately 61 acres. The dam was first completed in 1925. Further information on the dam was not available at the Dam Safety Section.

Bladens River Dam (No. 12404)

Bladens River Dam is located in the southwestern corner of Paper Mill Pond between Beach Street and Smith Street just south of Route 67 in Seymour. The dam is currently owned by Beach Properties Limited. The impoundment creates Paper Mill Pond, which has an approximate surface area of 1.31 acres. According to the owner, the pond is approximately 40% water with an average depth of less than two feet with the remaining area an island made of a mix of silt and gravel. The island is covered with trees and brush. The dam is comprised of earthen material with masonry training walls and a concrete spillway. The dam is 330 feet in linear length and has a maximum height of 20 feet. The dam has an earthen embankment section, a concrete buttress spillway section, a rubble concrete gravity spillway section, and an intake structure downstream of the forebay. No EOP or dam failure analysis/inundation mapping was on file at the DEEP.

After being contacted via mail, the owner sent the most recent inspection dated September 18, 2006, which stated that the dam was covered with brush and trees and that the right embankment had grass covering it. There was an eroded area on the left crest that was said to have been unchanged since inspection of the dam 12 years prior. There was some misalignment to the left training wall and some concrete spalling in the vertical walls of the spillway. The conclusion was that the dam was sound and intact. Although the owner was asked to provide an EOP, one was not sent. The owner stated that the dam is inspected periodically, and debris, usually including large logs or branches, is removed as necessary.

Kinneytown Dam (No. 12405)

Kinneytown Dam is located between Route 8 and South Main Street (Route 115) on the Naugatuck River in southern Seymour near the municipal border with Ansonia. The Kinneytown Dam is currently owned by Kinneytown Hydro, Inc. The dam was originally constructed in 1845 as a log crib dam, which washed out in 1910 when a 245-foot long rubble concrete dam with a full-length ogee spillway was constructed, which remains today. Work completed in 1923 on the dam raised the crest elevation from 51.88 feet to 52.08 feet. The left earthen embankment washed out as a result of the flood of 1955 and, in 1956, an addition of 168 feet of concrete ogee spillway was added to the dam.

No dam failure inundation figure is included in the Phase II Inspection/EOP Report dated December 1980; however, the flooding areas are described. According to the EOP, if there was a dam failure, only apartment units on the west bank of the Naugatuck River just downstream of Maple Street in Ansonia would likely be susceptible to flooding. No other information was on file at the Dam Safety Section, and the owner was contacted for more information via mail with no reply.

Sochrin Pond Dam (No. 12409)

Sochrin Pond Dam, also known as the Wooster Pond Dam, is located in southeastern Seymour on Wooster Brook. The dam is currently owned by the Town of Seymour. The impoundment creates Wooster/Sochrin Pond, which is approximately 1.5 acres in size. The dam is L shaped and is concrete gravity. There is a partial upstream earthen embankment, and the dam is approximately 265 feet in linear length, which includes the emergency spillway. The dam length is approximately 165 feet with an approximate 100-foot emergency spillway. The dam is approximately 15 feet in height and was most recently inspected in 2004 and reported to be in good/fair condition. The emergency spillway is located on the right of the dam's earthen overflow concrete training walls, which are approximately 100 feet in linear length.

There was no dam failure analysis/inundation mapping on file at the Dam Safety Section, and Seymour is unaware of the location or existence of an EOP for the dam. However, the files at the Dam Safety Section state that failure could result in the overtopping of Colony Street, located approximately 200 feet downstream, and Route 115 in the area of Colony Street.

Silver Lake Dam (No. 12410)

Silver Lake Dam is located just to the east of Lakeview Avenue and Route 8 and the municipal border between Beacon Falls and Seymour. The dam is owned by John Fanotto et al. The dam is located on Rimmon Brook, and the impoundment forms Silver Lake, which is approximately 5.6 acres in land surface area. No file existed at the CT DEEP Dam Safety Section. The owner (John Fanotto) was contacted via email and responded via telephone.

According to the owner, the dam is comprised of earthen material with a concrete spillway. The dam is approximately eight feet long and eight feet high with a spillway length of eight feet and height of six feet. The dam overtopped three times in 2011 from significant rainfall events. The owner reports that the Class B classification may be too high and that there is no significant amount of industrial or commercial properties downstream aside from a small industrial operation off Rimmondale Road. The are approximately 10 homes and approximately three additional commercial/industrial properties that may be affected if the dam is significantly overtopped. However, the owner stated that the overtopping in 2011 may be compounded with problems from a development upstream in Beacon Falls (Chatfield Farms) which, according to the owner, has caused a major increase in runoff.

Clarks Pond Dam (No. 12411)

Clarks Pond Dam is located in eastern Seymour between Maple Street (Route 313) and Hickory Lane. The dam is on the western side of Clarks Pond near Hickory Lane. The dam impounds Mud Brook and forms Clarks Pond, which has a land surface area of approximately 4.8 acres. No file existed at the CT DEEP's Dam Safety Section when MMI personnel conducted a review. As a result, the owner of the dam, Leonora Gaudreau, was contacted via mail, and no response was received.

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Dam Hazard Class

- Unclassified
- AA - Negligible Hazard
- A - Low Hazard
- BB - Moderate Hazard
- B - Significant Hazard
- C - High Hazard
- Dam Breach Inundation Area

Critical Facilities

- Critical Facilities

Historic Sites

- Historic Sites

SLR
99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773

Dam Failure Hazards in Seymour

NVCOG Hazard Mitigation Plan Update
Naugatuck Valley Council of Governments
47 Leavenworth Street, 3rd Floor
Waterbury, CT 06702

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Feet

DATE 6/15/2021

141.3211.00029
PROJ. NO.

FIG. 8-1

9.0 WILDFIRES

9.1 Existing Capabilities

Existing mitigation for wildland fire control is typically focused on Fire Department training and maintaining an adequate supply of equipment. The Town's Subdivision Regulations require provision of supplemental water supply systems for fire protection and stipulate that the Fire Department reviews and approves the location, size, design, construction specifications, and installation of these water supply systems. In addition, new roads, subdivisions, and fire ponds are required to allow for fire truck access.

Because prevention is still the primary means of reducing wildfire risks, the DEEP regularly posts updates about wildfire risk and circulates warnings to the press.

The Connecticut DEEP Open Burning Program requires designated "Open Burning Officials" in every community to oversee open burning within the town. The Town of Seymour is compliant with this program and has a designated Burning Official.

Actions Completed and New Capabilities

Seymour continues to maintain its capabilities for mitigating and responding to wildfire risks.

Summary

The Town mitigates wildfire hazards by implementing the state's Open Burning Program locally, installing dry hydrants and firefighting-water sources in remote areas, and training its fire department.

9.2 Vulnerabilities and Risk Assessment

The approximately 5,985 acres of forests and undeveloped land in Seymour may be susceptible to drought conditions that make them more vulnerable to wildfires. The approximately 371 acres of agricultural fields and maintained grasses may be vulnerable to direct damage from drought conditions. Wildfire risk zones are mapped in Figure 9-1.

According to Seymour officials, Seymour is subject to at least one wildfire each spring in the Route 34 area along the steep slope in the Little Laurel Lime Ridge Park area. Additionally, the Matthies property off South Main Street has a history of brush fires. According to officials, in spring 2011, it took the Fire Department approximately six to seven hours to fight a fire in this area.

Other areas of open space that may be susceptible to wildfires include: a pocket in northwestern Seymour between Route 334 and Stanley Drive (which includes Cemetery Road); an area between Route 8 and Bungay Road in central Seymour (which consists of steep slopes near the Naugatuck River); an area along the northwest border of town near Beacon Falls and Oxford (has limited roadway access).

There are areas of the Town where roads are narrow and/or one way or are windy through areas of steeper slopes, which hinders emergency access to fight fires.

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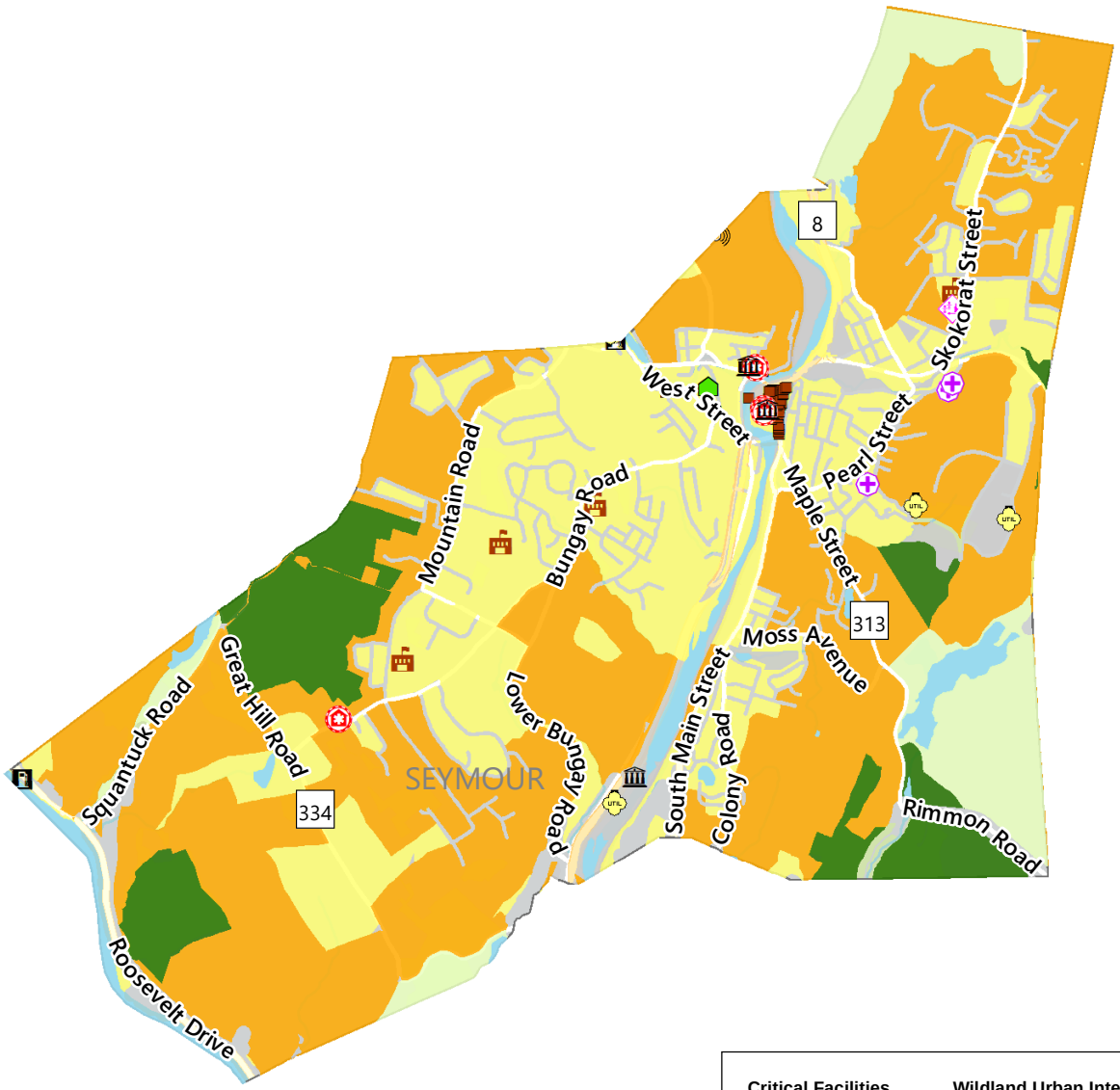

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99 REALTY DRIVE
CHESHIRE, CT 06410
203.271.1773

Wildfire Hazard in Seymour

NVCOG Hazard Mitigation Plan Update
Naugatuck Valley Council of Governments
47 Leavenworth Street, 3rd Floor
Waterbury, CT 06702

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Feet

DATE 6/15/2021

141.3211.00029
PROJ. NO.

FIG. 9-1

10.0 MITIGATION STRATEGIES AND ACTIONS

10.1 Goals and Objectives

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

10.2 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.

Strategy	Description	Responsible Party	Status	Notes
SMR-1	Consider floodproofing measures at the Police Department at 11 Franklin Street	EMD, PD	Carry Forward	Action not yet completed due to limited funding.
SMR-2	Consider floodproofing measures at Citizens Engine No. 2 at 26 DeForest Street	EMD	Carry Forward	Action not yet completed due to limited funding.
SMR-3	Consider floodproofing measures at the Public Works Department at 721 Derby Avenue	EMD, PW	Carry Forward	Action not yet completed due to limited funding.
SMR-4	Consider floodproofing measures at the WPCF at 723 Derby Avenue	EMD, PW	Carry Forward	Action not yet completed due to limited funding.
SMR-5	Ensure that redevelopment of the vacant RLP on River Road in Seymour is flood damage resistant	PZC, B&E	Carry Forward	Redevelopment has not yet taken place.
SMR-6	Improve drainage or install new drainage system to reduce flooding from hillside along Route 34	PW, CT DOT	Carry Forward	Action not yet completed due to limited funding.
SMR-7	Upgrade or replace the culvert near Walnut Street to reduce flooding	PW	Carry Forward	Action not yet completed due to limited funding.
SMR-8	Replace/upgrade drainage associated with Bladens River near Beach Street; pursue opportunities to reduce overbank flooding	PW	Carry Forward	Action not yet completed due to limited funding.
SMR-9	Replace/upgrade drainage associated with Little River near Bank Street; pursue opportunities to reduce overbank flooding	PW	Carry Forward	Action not yet completed due to limited funding.

Strategy	Description	Responsible Party	Status	Notes
SMR-10	Consider stabilizing the area that has historically been a location of landslides at the intersection of Rose and Cedar Streets	PW	Carry Forward	Action not yet completed due to limited funding.
SMR-11	Work with RWA to develop an EOP and maintenance plan for Peat Swamp Reservoir Dam if none exists	EMD	Complete	Peat Swamp Reservoir Dam EAP has been completed and was accepted by CT DEEP in September 2018.
SMR-12	Work with Beach Properties to develop EOP and maintenance plan for Bladens River Dam	EMD	Complete	Bladens River Dam EAP has been completed and was accepted by CT DEEP in December 2018.
SMR-13	Work with Kinneytown Hydro to develop EOP and maintenance plan for Kinneytown Dam	EMD	Complete	Kinneytown Dam is regulated by FERC.
SMR-14	Develop EOP and maintenance plan for Sochrin Pond Dam	EMD	Carry Forward	Action not yet completed due to limited municipal capacities.
SMR-15	Work with Fanotto et al to develop EOP and maintenance plan for Silver Lake Dam; also address runoff and elevated sedimentation as needed	EMD	Carry Forward	Action not yet completed due to limited municipal capacities.
SMR-16	Work with owner of Clarks Pond Dam to develop EOP and maintenance plan for the dam	EMD	Complete	Clarks Pond Dam EAP has been completed and was accepted by CT DEEP in October 2017.
SMR-17	Continue to monitor Route 113 in the Little Laurel Lime Ridge Park area, especially during the spring season	FD	Capability	This is a capability.
SMR-18	Continue to monitor the Matthies property off South Main Street in Seymour which has a history of brush fires	FD	Capability	This is a capability.
SMR-19	Enforce regulations and permits for open burning	FD, PD	Capability	This is a capability.
SMR-20	Continue to support public outreach programs to increase awareness of forest fire danger, equipment usage, and protecting homes from wildfires	FD	Capability	This is a capability.
SMR-21	Ensure that provisions of Subdivision Regulations regarding fire protection facilities are being enforced	PZC	Capability	This is a capability.
SMR-22	Pursue additional sources of fire-fighting water where adequate supplies do not exist	FD, BOS/BOA	Capability	This is a capability.

Strategy	Description	Responsible Party	Status	Notes
SMR-23	Patrol municipal-owned open space and parks to prevent campfires	FD, PD	Capability	This is a capability.
SMR-24	Continue to promote inter-municipal cooperation in fire-fighting efforts	FD	Capability	This is a capability.
SMR-25	Include dam failure areas in the Reverse 911 and CodeRed emergency contact database	EMD	Drop	Reverse 911 and CodeRed have sufficient capabilities.
SMR-26	Consider preventing residential development in areas prone to collapse such as below steep slopes, or in areas prone to liquefaction	PZC	Carry Forward with Revision	Action not yet completed. New action carried forward to audit zoning regulations in order to identify appropriate updates to limit development in areas at risk of liquefaction, landslides, or other geological hazards.
SMR-27	Consider restricting construction on 15%, 20%, or 25% slopes* and restricting excavation and clearing above and below such slopes	PZC	Drop	Merged with action above.
SMR-28	Consider adopting or codifying USDS guidelines to regulate development in areas of steep slopes	PZC	Drop	Merged with action above.
SMR-29	Consider preserving areas of steep slopes as protected open space through acquisitions or modified zoning	BOS/BOA	Drop	Merged with action above.
SMR-30	Continue to require adherence to the state building codes	B&E	Capability	This is a capability.
SMR-31	Encourage through-streets instead of dead-end streets	PZC	Capability	This is a capability.
SMR-32	Ensure that utility providers are aware of landslide potentials and have responder teams available to repair damage caused by slides	EMD	Capability	Town works closely with utility companies on service reliability.
SMR-33	Make education materials available at Building and Engineering departments regarding identification of landslide risk areas	B&E	Drop	Town does not believe this action is necessary.
SMR-34	Consider expanding and over-sizing drainage systems in the vicinity of steep slopes	PW	Carry Forward with Revision	Action has not yet been pursued due to limited municipal capacities.
SMR-35	Encourage property owners to have retaining walls inspected by structural engineers	EMD	Capability	This is a capability.

Strategy	Description	Responsible Party	Status	Notes
SMR-36	Ensure that municipal departments and critical facilities have adequate backup facilities in case damage occurs	EMD	Capability	This is a capability.
SMR-37	Conduct a study to identify municipal buildings, critical facilities, and commercial/industrial buildings that are vulnerable to roof damage or collapse	PW, B&E	Carry Forward	Action not yet completed due to limited funding.
SMR-38	Develop a plan to prioritize snow removal from the roof of municipal buildings (especially critical facilities) and have funding available for clearing	PW, B&E	Capability	This is a capability.
SMR-39	Retrofit or modify critical facilities as needed to strengthen roofs and structures and make them more resilient to snow loading	PW, B&E	Drop	Town does not believe this is a cost-effective approach, and will focus on snow removal instead.
SMR-40	Consider posting the snow plowing routes in municipal buildings and the municipal web sites	PW	Drop	Town does not believe this action will contribute to hazard mitigation.
SMR-41	Identify areas that are difficult to access during winter storm events and develop contingency plans	PW	Capability	This is a capability.
SMR-42	Provide information for mitigating icing, insulating pipes, and retrofits for flat roofed buildings	PW, B&E	Capability	Information is available through the State Building Code
SMR-43	Continue tree limb inspections and maintenance and outreach to private property owners regarding branches above powerlines	TW	Capability	This is a capability.
SMR-44	Increase funding for the Tree Warden to address a wider range of tree limb hazards than the current budget allows	TW, BOS/BOA	Carry Forward	Action not yet completed due to limited funding.
SMR-45	Provide for the Building Department to make literature available during the permitting process regarding appropriate design standards for wind	B&E	Capability	Information is available through the State Building Code
SMR-46	Encourage the use of wind-mitigation structural techniques in new structures to protect new buildings to a greater level than the required standard	B&E	Capability	Information is available through the State Building Code

Strategy	Description	Responsible Party	Status	Notes
SMR-47	Develop a hydraulic/hydrologic model of floodprone river systems to prioritize mitigation such as bridge and culvert replacement, property acquisitions, etc.	EMD, PW	Carry Forward	Action not yet completed due to limited funding.
SMR-48	Pursue acquisition/demolition of residential structures that suffer flood damage; RLPs should be prioritized.	EMD, BOS/BOA	Carry Forward	Action not yet completed due to limited funding.
SMR-49	Pursue the acquisition of additional municipal open space in SFHAs	BOS/BOA	Drop	Town will pursue open space acquisition as appropriate; this targeted action is not considered necessary.
SMR-50	Selectively pursue conservation recommendations listed in the Plan of Conservation and Development and other studies and documents	BOS/BOA	Capability	This is a capability.
SMR-51	Continue to regulate development in protected and sensitive areas, including steep slopes, wetlands, and floodplains	PZC	Capability	This is a capability.
SMR-52	Consider enrolling in the Community Rating System	EMD, B&E	Drop	Town is not intending to enroll is CRS in the near future.
SMR-53	Provide outreach regarding structure elevation, flood barriers, dry and wet floodproofing, and other improvement techniques	EMD, B&E	Carry Forward with Revision	Action not yet completed due to limited municipal capacities.
SMR-54	Ensure that EMDs and other personnel attend DEEP and other training workshops such as the FEMA-sponsored training at EMI in Maryland	EMD, B&E	Carry Forward with Revision	Action not yet completed due to limited municipal capacities.
SMR-55	Provide technical assistance to owners of non-residential structures regarding floodproofing measures such as wet and dry floodproofing	EMD, B&E	Capability	Town is able to provide technical assistance as needed.
SMR-56	Pursue elevation of residential structures that suffer flood damage; RLPs should be prioritized.	EMD, BOS/BOA	Drop	Town will send annual letters to at-risk structure owners, as noted above.
SMR-57	Continue to regulate activities within SFHAs to the greatest extent possible with the municipal codes and Zoning and Subdivision Regulations	PZC, B&E	Capability	This is a capability.

Strategy	Description	Responsible Party	Status	Notes
SMR-58	Consider requiring new buildings in floodprone areas to be protected to the highest recorded flood level regardless of SFHA status	PZC, B&E	Drop	Use of the elevations in the FIS (plus freeboard) is more appropriate for the City.
SMR-59	Ensure that new buildings be designed and graded to shunt drainage away from the building	PZC, B&E	Capability	This is a capability (building code).
SMR-60	Require developers to demonstrate whether detention or retention of storm water is the best option for reducing peak flows downstream	PZC, B&E	Capability	This is a capability.
SMR-61	Obtain copies of the disaster planning guides and manuals from the "Are You Ready?" series and make them available at the City and Town Halls	EMD	Drop	Action dropped in favor of the following action.
SMR-62	Disseminate informational pamphlets regarding natural hazards to public locations	EMD	Carry Forward	Action not yet completed due to limited municipal capacities.
SMR-63	Develop checklists for permittees that cross-references regulations and codes related to disaster resilience	PZC, B&E, EMD	Drop	Action not considered necessary.
SMR-64	Require that utilities be placed underground in new developments	PZC	Drop	Underground utilities are installed as appropriate for new developments; a requirement is not considered necessary.
SMR-65	Pursue funding to place utilities underground in existing developments	BOS/BOA	Drop	Town will focus on coordinating with power utility to ensure grid resilience.
SMR-66	Encourage residents to purchase and use NOAA weather radio with an alarm feature	EMD	Carry Forward	Action not yet completed due to limited municipal capacities.
SMR-67	Review and update evacuation route maps at least annually	EMD	Carry Forward	Action not yet completed due to limited municipal capacities.
SMR-68	Install evacuation signs in SFHAs	EMD	Carry Forward	Action not yet completed due to limited funding.

10.3 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.

10.4 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.

Action SMR-01	
Take one of the following actions that will mitigate natural hazard risks while also meeting Sustainable CT objectives: 1. Disseminate a toolkit for pre-disaster business preparedness. 2. Revise regulations to promote Low Impact Development. 3. Include the goals of this Hazard Mitigation Plan, and at least three other sustainability concepts, in your next POCD update.	
Lead	Plan
Cost	$0 - $25,000
Funding	OB, CT DEEP, Sustainable CT
Timeframe	2022
Priority	High

Action SMR-02	
Ensure that redevelopment of the vacant Repetitive Loss Property on River Road in Seymour is flood damage resistant	
Lead	PZC, B&E
Cost	$0 - $25,000
Funding	OB
Timeframe	2022
Priority	High

Action SMR-03	
Audit zoning regulations in order to identify appropriate updates to limit development in areas at risk of liquefaction, landslides, or other geological hazards.	
Lead	PZC
Cost	$0 - $25,000
Funding	OB, FEMA Grant, CT DEEP
Timeframe	2022
Priority	High

Action SMR-04	
Send an annual letter to owners of residential and non-residential properties that are in or near flood zones, or that are known to flood, informing them of mitigation options (such as elevation, flood barriers, dry and wet floodproofing).	
Lead	EMD, B&E
Cost	$0 - $25,000
Funding	OB
Timeframe	2022
Priority	High

Action SMR-05	
Refer to the Morris Low Impact Sustainable Development Design Manual, created to be a regional resource by the Northwest Conservation District and the Northwest Hills Council of Governments, to incorporate LID guidance and regulations into the local Zoning Regulations or Ordinances	
Lead	Plan
Cost	$0 - $25,000
Funding	OB, CT DEEP
Timeframe	2022
Priority	High

Action SMR-06	
Work with CT DEEP to complete a formal validation of the Repetitive Loss Property list and update the mitigation status of each listed property.	
Lead	EM, Plan, FS
Cost	$0 - $25,000
Funding	OB, CT DEEP
Timeframe	2022
Priority	High

Action SMR-07	
Fully incorporate the provisions of the DEEP model flood regulations into the local flood damage prevention regulations (or ordinance), including but not limited to the required design flood elevations for the first floor, building electrical systems, and building mechanical systems.	
Lead	Plan, FS, NFIP Coordinator
Cost	$0 - $25,000
Funding	OB, FEMA Grant, CT DEEP
Timeframe	2022
Priority	Med

Action SMR-08	
Increase Substantial Damage and Substantial Improvement lookback periods to two or more years.	
Lead	Plan, FS, NFIP Coordinator
Cost	$0 - $25,000
Funding	OB, FEMA Grant, CT DEEP
Timeframe	2022
Priority	Med

Action SMR-09	
Remain engaged with CIRCA's Resilient Connecticut project and utilize vulnerability mapping tools to help with local planning and project development.	
Lead	Plan
Cost	$0 - $25,000
Funding	OB, CT DEEP, Resilient CT
Timeframe	2022
Priority	Med

Action SMR-10	
Remain engaged with FEMA and the State during the Housatonic River Watershed flood map updates. Review draft maps and provide comments to FEMA.	
Lead	Plan, FS, NFIP Coordinator
Cost	$0 - $25,000
Funding	OB, FEMA Grant, CT DEEP
Timeframe	2022
Priority	Med

Action SMR-11	
Work with CIRCA to develop potential risk reduction pilot projects in the identified "adaptation/resilience opportunity areas" near and in locations of transit-oriented development (TOD).	
Lead	Plan
Cost	$0 - $25,000
Funding	OB, CT DEEP, Resilient CT
Timeframe	2022
Priority	Med

Action SMR-12	
Increase funding for the Tree Warden to address a wider range of tree limb hazards than the current budget allows	
Lead	TW, BOS/BOA
Cost	$0 - $25,000
Funding	OB
Timeframe	2022
Priority	Low

Action SMR-13	
Require the EMD, Planning staff, and other personnel attend the annual Connecticut Association of Flood Managers (CAFM) conference, or other CAFM trainings.	
Lead	EMD, B&E
Cost	$0 - $25,000
Funding	OB
Timeframe	2022
Priority	Low

Action SMR-14	
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.	
Lead	EM, FS
Cost	$0 - $25,000
Funding	CT DEEP
Timeframe	2022
Priority	Low

Action SMR-15	
Disseminate informational pamphlets regarding natural hazards to public locations	
Lead	EMD
Cost	$0 - $25,000
Funding	OB
Timeframe	2022 – 2023
Priority	Low

Action SMR-16	
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 support the preparation of resiliency plans across the state.	
Lead	Plan, HC/HDC
Cost	$0 - $25,000
Funding	OB, CT SHPO
Timeframe	2022 – 2023
Priority	Low

Action SMR-17	
Coordinate with CT SHPO to conduct outreach to owners of historic properties to educate them on methods of retrofitting historic properties to be more hazard-resilient while maintaining historic character.	
Lead	Plan, HC/HDC
Cost	$0 - $25,000
Funding	OB, CT SHPO
Timeframe	2022 – 2023
Priority	Low

Action SMR-18	
Develop EAP and maintenance plan for Sochrin Pond Dam	
Lead	EMD
Cost	$25,000 - $50,000
Funding	OB, CT DEEP
Timeframe	2022 – 2024
Priority	Med

Action SMR-19	
Work with Fanotto et al to develop EAP and maintenance plan for Silver Lake Dam; also address runoff and elevated sedimentation as needed	
Lead	EMD
Cost	$25,000 - $50,000
Funding	OB, CT DEEP
Timeframe	2022 – 2024
Priority	Med

Action SMR-20	
Require that drainage systems in the vicinity of steep slopes be expanded and oversized, if doing so will not increase flood risk downstream, in order to avoid saturation of the slopes and the landslides that may result.	
Lead	PW
Cost	$0 - $25,000
Funding	OB
Timeframe	2022 – 2024
Priority	Low

Action SMR-21	
Conduct a study to identify municipal buildings, critical facilities, and commercial/industrial buildings that are vulnerable to roof damage or collapse	
Lead	PW, B&E
Cost	$25,000 - $50,000
Funding	OB, CIP
Timeframe	2022 – 2024
Priority	Low

Action SMR-22	
Develop a hydraulic/hydrologic model of floodprone river systems to prioritize mitigation such as bridge and culvert replacement, property acquisitions, etc.	
Lead	EMD, PW
Cost	$50,000 - $100,000
Funding	FEMA Grant, CT DEEP
Timeframe	2022 – 2024
Priority	Low

Action SMR-23	
Identify and implement appropriate floodproofing measures at the WPCF at 723 Derby Avenue	
Lead	EMD, PW
Cost	$100,000 - $500,000
Funding	CIP, FEMA Grant, FEMA AFG, CT DEMHS
Timeframe	2022 – 2024
Priority	Med

Action SMR-24	
Encourage residents to purchase and use NOAA weather radio with an alarm feature	
Lead	EMD
Cost	$25,000 - $50,000
Funding	OB, CT DEMHS
Timeframe	2022 – 2024
Priority	Low

Action SMR-25	
Review and update evacuation route maps at least annually	
Lead	EMD
Cost	$25,000 - $50,000
Funding	OB, CT DEMHS
Timeframe	2022 – 2024
Priority	Low

Action SMR-26	
Install evacuation signs in SFHAs	
Lead	EMD
Cost	$25,000 - $50,000
Funding	OB, CT DEMHS
Timeframe	2022 – 2024
Priority	Low

Action SMR-27	
Identify and implement appropriate floodproofing measures at the Police Department at 11 Franklin Street	
Lead	EMD, PD
Cost	$100,000 - $500,000
Funding	CIP, FEMA Grant, FEMA AFG, CT DEMHS
Timeframe	2023 – 2025
Priority	Low

Action SMR-28	
Identify and implement appropriate floodproofing measures at Citizens Engine No. 2 at 26 DeForest Street	
Lead	EMD
Cost	$100,000 - $500,000
Funding	CIP, FEMA Grant, FEMA AFG, CT DEMHS
Timeframe	2023 – 2025
Priority	Low

Action SMR-29	
Identify and implement appropriate floodproofing measures at the Public Works Department at 721 Derby Avenue	
Lead	EMD, PW
Cost	$100,000 - $500,000
Funding	CIP, FEMA Grant, FEMA AFG, CT DEMHS
Timeframe	2023 – 2025
Priority	Low

Action SMR-30	
Improve drainage or install new drainage system to reduce flooding from hillside along Route 34	
Lead	PW, CT DOT
Cost	More than $500,000
Funding	OB, CIP, FEMA Grant, CT DEEP
Timeframe	2023 – 2025
Priority	Med

Action SMR-31	
Upgrade or replace the culvert near Walnut Street to reduce flooding	
Lead	PW
Cost	More than $500,000
Funding	OB, CIP, FEMA Grant, CT DEEP
Timeframe	2023 – 2025
Priority	Med

Action SMR-32	
Replace/upgrade drainage associated with Bladens River near Beach Street; pursue opportunities to reduce overbank flooding	
Lead	PW
Cost	More than $500,000
Funding	OB, CIP, FEMA Grant, CT DEEP
Timeframe	2023 – 2025
Priority	Med

Action SMR-33	
Replace/upgrade drainage associated with Little River near Bank Street; pursue opportunities to reduce overbank flooding	
Lead	PW
Cost	More than $500,000
Funding	OB, CIP, FEMA Grant, CT DEEP
Timeframe	2023 – 2025
Priority	Med

Action SMR-34	
Stabilize the area that has historically been a location of landslides at the intersection of Rose and Cedar Streets	
Lead	PW
Cost	$100,000 - $500,000
Funding	CIP, CT DEEP
Timeframe	2024 – 2026
Priority	Low

Action SMR-35	
Pursue acquisition/demolition of residential structures that suffer flood damage; RLPs should be prioritized.	
Lead	EMD, BOS/BOA
Cost	More than $1 million
Funding	FEMA Grant, CT DEEP
Timeframe	2024 – 2026
Priority	Low

APPENDIX A

STAPLEE MATRIX

#	Action Description	Regional Theme	Lead Department	Cost Estimate	Potential Funding Sources	Timeframe for Completion	Weighted STAPLEE Criteria														Total STAPLEE Score
							Benefits							Costs							
							Social	Technical (x2)	Administrative	Political	Legal	Economic (x2)	Environmental	Social	Technical (x2)	Administrative	Political	Legal	Economic (x2)	Environmental	
SMR-01	Take one of the following actions that will mitigate natural hazard risks while also meeting Sustainable CT objectives: 1. Disseminate a toolkit for pre-disaster business preparedness. 2. Revise regulations to promote Low Impact Development. 3. Include the goals of this Hazard Mitigation Plan, and at least three other sustainability concepts, in your next POCD update.	Sustainable CT	Plan	$0 - $25,000	OB, CT DEEP, Sustainable CT	2022	1	1	1	1	1	1	1	0	0	0	0	0	0	0	9
SMR-02	Ensure that redevelopment of the vacant Repetitive Loss Property on River Road in Seymour is flood damage resistant	RLP	PZC, B&E	$0 - $25,000	OB	2022	1	1	1	0	1	1	0	0	0	0	0	0	0	0	7
SMR-03	Audit zoning regulations in order to identify appropriate updates to limit development in areas at risk of liquefaction, landslides, or other geological hazards.	Flood Regulations	PZC	$0 - $25,000	OB, FEMA Grant, CT DEEP	2022	1	1	1	0	1	0	1	0	0	0	-1	0	0	0	5
SMR-04	Send an annual letter to owners of residential and non-residential properties that are in or near flood zones, or that are known to flood, informing them of mitigation options (such as elevation, flood barriers, dry and wet floodproofing).	RLP	EMD, B&E	$0 - $25,000	OB	2022	1	1	1	0	1	1	0	0	0	0	0	0	0	0	7
SMR-05	Refer to the Morris Low Impact Sustainable Development Design Manual, created to be a regional resource by the Northwest Conservation District and the Northwest Hills Council of Governments, to incorporate LID guidance and regulations into the local Zoning Regulations or Ordinances	Low Impact Development	Plan	$0 - $25,000	OB, CT DEEP	2022	0	1	1	1	1	1	1	0	0	0	0	0	0	0	8
SMR-06	Work with CT DEEP to complete a formal validation of the Repetitive Loss Property list and update the mitigation status of each listed property.	RLP	EM, Plan, FS	$0 - $25,000	OB, CT DEEP	2022	1	1	1	0	1	1	0	0	0	0	0	0	0	0	7
SMR-07	Fully incorporate the provisions of the DEEP model flood regulations into the local flood damage prevention regulations (or ordinance), including but not limited to the required design flood elevations for the first floor, building electrical systems, and building mechanical systems.	Flood Regulations	Plan, FS, NFIP Coordinator	$0 - $25,000	OB, FEMA Grant, CT DEEP	2022	1	1	1	0	1	0	1	0	0	0	-1	0	0	0	5
SMR-08	Increase Substantial Damage and Substantial Improvement lookback periods to two or more years.	Flood Regulations	Plan, FS, NFIP Coordinator	$0 - $25,000	OB, FEMA Grant, CT DEEP	2022	1	1	1	0	1	0	1	0	0	0	-1	0	0	0	5
SMR-09	Remain engaged with CIRCA's Resilient Connecticut project and utilize vulnerability mapping tools to help with local planning and project development.	Resilient CT	Plan	$0 - $25,000	OB, CT DEEP, Resilient CT	2022	0	1	1	1	1	1	0	0	0	0	0	0	0	0	7
SMR-10	Remain engaged with FEMA and the State during the Housatonic River Watershed flood map updates. Review draft maps and provide comments to FEMA.	Flood Map Updates	Plan, FS, NFIP Coordinator	$0 - $25,000	OB, FEMA Grant, CT DEEP	2022	1	1	1	0	1	0	1	0	0	0	-1	0	0	0	5
SMR-11	Work with CIRCA to develop potential risk reduction pilot projects in the identified "adaptation/resilience opportunity areas" near and in locations of transit-oriented development (TOD).	Resilient CT	Plan	$0 - $25,000	OB, CT DEEP, Resilient CT	2022	0	1	1	1	1	1	0	0	0	0	0	0	0	0	7
SMR-12	Identify and implement appropriate floodproofing measures at the WPCF at 723 Derby Avenue	Critical Facility Protection	EMD, PW	$100,000 - $500,000	CIP, FEMA Grant, FEMA AFG, CT DEMHS	2022 – 2024	0	1	1	0	1	1	1	0	0	0	0	0	0	0	7
SMR-13	Develop EAP and maintenance plan for Sochrin Pond Dam	Dam Safety	EMD	$25,000 - $50,000	OB, CT DEEP	2022 – 2024	0	1	1	1	1	1	0	0	0	0	0	0	0	-1	6.5
SMR-14	Work with Fanotto et al to develop EAP and maintenance plan for Silver Lake Dam; also address runoff and elevated sedimentation as needed	Dam Safety	EMD	$25,000 - $50,000	OB, CT DEEP	2022 – 2024	0	1	1	1	1	1	0	0	0	0	0	0	0	-1	6.5
SMR-15	Improve drainage or install new drainage system to reduce flooding from hillside along Route 34	Drainage	PW, CT DOT	More than $500,000	OB, CIP, FEMA Grant, CT DEEP	2023 – 2025	0	1	0	1	1	1	0.5	0	0	0	0	0	0	0	6.5
SMR-16	Upgrade or replace the culvert near Walnut Street to reduce flooding	Culvert & Bridge Upgrades	PW	More than $500,000	OB, CIP, FEMA Grant, CT DEEP	2023 – 2025	0	1	0	1	1	1	0.5	0	0	0	0	0	0	0	6.5
SMR-17	Replace/upgrade drainage associated with Bladens River near Beach Street; pursue opportunities to reduce overbank flooding	Drainage	PW	More than $500,000	OB, CIP, FEMA Grant, CT DEEP	2023 – 2025	0	1	0	1	1	1	0.5	0	0	0	0	0	0	0	6.5
SMR-18	Replace/upgrade drainage associated with Little River near Bank Street; pursue opportunities to reduce overbank flooding	Drainage	PW	More than $500,000	OB, CIP, FEMA Grant, CT DEEP	2023 – 2025	0	1	0	1	1	1	0.5	0	0	0	0	0	0	0	6.5
SMR-19	Increase funding for the Tree Warden to address a wider range of tree limb hazards than the current budget allows	Tree and Debris Management	TW, BOS/BOA	$0 - $25,000	OB	2022	0	0.5	1	1	1	1	1	0	0	0	-1	0	0	0	6
SMR-20	Require the EMD, Planning staff, and other personnel attend the annual Connecticut Association of Flood Managers (CAFM) conference, or other CAFM trainings.	Administration, Enforcement, & Maintenance	EMD, B&E	$0 - $25,000	OB	2022	1	0.5	1	1	1	0.5	0	0	0	0	0	0	0	0	6

#	Action Description	Regional Theme	Lead Department	Cost Estimate	Potential Funding Sources	Timeframe for Completion	Weighted STAPLEE Criteria														Total STAPLEE Score
							Benefits							Costs							
							Social	Technical (x2)	Administrative	Political	Legal	Economic (x2)	Environmental	Social	Technical (x2)	Administrative	Political	Legal	Economic (x2)	Environmental	
SMR-21	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.	Small Business Chemicals	EM, FS	$0 - $25,000	CT DEEP	2022	1	0	1	0	1	1	1	0	0	0	0	0	0	0	6
SMR-22	Develop a hydraulic/hydrologic model of floodprone river systems to prioritize mitigation such as bridge and culvert replacement, property acquisitions, etc.	Study	EMD, PW	$50,000 - $100,000	FEMA Grant, CT DEEP	2022 – 2024	1	1	1	0	1	0	0	0	0	0	0	0	0	0	5
SMR-23	Identify and implement appropriate floodproofing measures at the Police Department at 11 Franklin Street	Critical Facility Protection	EMD, PD	$100,000 - $500,000	CIP, FEMA Grant, FEMA AFG, CT DEMHS	2023 – 2025	0	1	1	0	1	1	0	0	0	0	0	0	0	0	6
SMR-24	Identify and implement appropriate floodproofing measures at Citizens Engine No. 2 at 26 DeForest Street	Critical Facility Protection	EMD	$100,000 - $500,000	CIP, FEMA Grant, FEMA AFG, CT DEMHS	2023 – 2025	0	1	1	0	1	1	0	0	0	0	0	0	0	0	6
SMR-25	Identify and implement appropriate floodproofing measures at the Public Works Department at 721 Derby Avenue	Critical Facility Protection	EMD, PW	$100,000 - $500,000	CIP, FEMA Grant, FEMA AFG, CT DEMHS	2023 – 2025	0	1	1	0	1	1	0	0	0	0	0	0	0	0	6
SMR-26	Disseminate informational pamphlets regarding natural hazards to public locations	Public Education & Engagement	EMD	$0 - $25,000	OB	2022 – 2023	1	0.5	0	1	1	1	0	0	0	-1	0	0	0	0	5.5
SMR-27	Pursue acquisition/demolition of residential structures that suffer flood damage; RLPs should be prioritized.	Acquisition & Open Space	EMD, BOS/BOA	More than $1 million	FEMA Grant, CT DEEP	2024 – 2026	1	1	0	0	1	1	1	-1	0	0	-1	0	0	0	5.5
SMR-28	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 support the preparation of resiliency plans across the state.	Historic & Cultural Resources	Plan, HC/HDC	$0 - $25,000	OB, CT SHPO	2022 – 2023	1	0	1	1	0	1	0	0	0	0	0	0	0	0	5
SMR-29	Coordinate with CT SHPO to conduct outreach to owners of historic properties to educate them on methods of retrofitting historic properties to be more hazard-resilient while maintaining historic character.	Historic & Cultural Resources	Plan, HC/HDC	$0 - $25,000	OB, CT SHPO	2022 – 2023	1	0	1	1	0	1	0	0	0	0	0	0	0	0	5
SMR-30	Conduct a study to identify municipal buildings, critical facilities, and commercial/industrial buildings that are vulnerable to roof damage or collapse	Critical Facility Protection	PW, B&E	$25,000 - $50,000	OB, CIP	2022 – 2024	0	0.5	1	0	1	1	0	0	0	0	0	0	0	0	5
SMR-31	Stabilize the area that has historically been a location of landslides at the intersection of Rose and Cedar Streets	Landslide Mitigation	PW	$100,000 - $500,000	CIP, CT DEEP	2024 – 2026	0	1	0	0	1	0	1	0	0	0	0	0	0	0	4
SMR-32	Encourage residents to purchase and use NOAA weather radio with an alarm feature	Emergency Response, Alerts, & Communication	EMD	$25,000 - $50,000	OB, CT DEMHS	2022 – 2024	1	0	1	1	1	0	0	0	0	-1	0	0	0	0	3.5
SMR-33	Review and update evacuation route maps at least annually	Evacuation & Access	EMD	$25,000 - $50,000	OB, CT DEMHS	2022 – 2024	1	0	1	1	1	0	0	0	0	-1	0	0	0	0	3.5
SMR-34	Install evacuation signs in SFHAs	Evacuation & Access	EMD	$25,000 - $50,000	OB, CT DEMHS	2022 – 2024	1	0	1	1	1	0	0	0	0	-1	0	0	0	0	3.5
SMR-35	Require that drainage systems in the vicinity of steep slopes be expanded and oversized, if doing so will not increase flood risk downstream, in order to avoid saturation of the slopes and the landslides that may result.	Landslide Mitigation	PW	$0 - $25,000	OB	2022 – 2024	0	1	0	0	1	0	1	0	0	0	-1	0	0	0	3

APPENDIX B

RECORD OF MUNICIPAL ADOPTION

CERTIFICATE OF ADOPTION
SEYMOUR BOARD OF SELECTMEN

A RESOLUTION ADOPTING THE NAUGATUCK VALLEY COUNCIL OF GOVERNMENTS HAZARD MITIGATION PLAN UPDATE, 2021-2026

WHEREAS, the Town of Seymour has historically experienced severe damage from natural hazards and it continues to be vulnerable to the effects of those natural hazards profiled in the plan (e.g. *flooding, high wind, thunderstorms, winter storms, earthquakes, droughts, dam failure, and wildfires)*, resulting in loss of property and life, economic hardship, and threats to public health and safety; and

WHEREAS, the Seymour Board of Selectmen approved the previous version of the Plan in 2012; and

WHEREAS, the Town of Seymour and the Naugatuck Valley Council of Governments developed and received conditional approval from the Federal Emergency Management Agency (FEMA) for the Hazard Mitigation Plan Update, 2021-2026 under the requirements of 44 CFR 201.6; and

WHEREAS, public and committee meetings were held and public input was sought in 2020 and 2021 regarding the development and review of the Hazard Mitigation Plan Update, 2021-2026; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and Plan maintenance procedure for Seymour; and

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

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

RESOLVED by the Board of Selectmen:

1. The Plan is hereby adopted as an official plan of the Town of Seymour;
2. The respective officials identified in the mitigation strategy 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 a part of this resolution for a period of five (5) years from the date of this resolution.
4. An annual report on the progress of the implementation elements of the Plan shall be presented to the Board of Selectmen.

Adopted this 17 **day of** Nov, **2021 by the Board of Selectmen of Seymour, Connecticut**

First Selectman

IN WITNESS WHEREOF, the undersigned has affixed his/her signature and the corporate seal of Seymour this 18th day of Nov., 2021.

Town Clerk

APPENDIX C

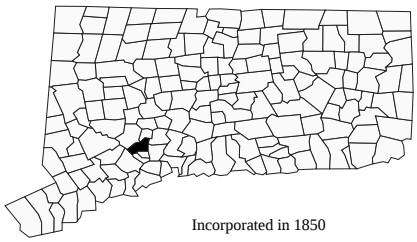
CERC Town Profile 2019

Seymour, Connecticut

CERC Town Profile 2019 *Produced by Connecticut Data Collaborative*

Town Hall
1 First Street
Seymour, CT 06483
(203) 888-2511

Belongs To
New Haven County
LMA Bridgeport - Stamford
Naugatuck Valley Planning Area



Incorporated in 1850

Demographics

Population

	Town	County	State
2000	15,454	824,008	3,405,565
2010	16,540	862,477	3,574,097
2013-2017	16,579	862,127	3,594,478
2020	16,797	898,514	3,604,591
'17 - '20 Growth / Yr	0.4%	1.3%	0.1%

	Town	County	State
Land Area (sq. miles)	15	605	4,842
Pop./Sq. Mile (2013-2017)	1,142	1,426	742
Median Age (2013-2017)	41	40	41
Households (2013-2017)	6,146	327,402	1,361,755
Med. HH Inc. (2013-2017)	$75,550	$64,872	$73,781

	Town	State
Veterans (2013-2017)	946	180,111

Race/Ethnicity (2013-2017)

	Town	County	State
White Non-Hisp	12,864	553,000	2,446,049
Black Non-Hisp	327	105,661	350,820
Asian Non-Hisp	453	33,678	154,910
Native American Non-Hisp	0	783	5,201
Other/Multi-Race Non-Hisp	146	20,448	84,917
Hispanic or Latino	2,789	148,446	551,916

	Town	County	State
Poverty Rate (2013-2017)	4.7%	12.1%	10.1%

Educational Attainment (2013-2017)

	Town		State	
High School Graduate	3,495	31%	673,582	27%
Associates Degree	733	7%	188,481	8%
Bachelors or Higher	3,643	33%	953,199	38%

Age Distribution (2013-2017)

	0-4		5-14		15-24		25-44		45-64		65+		Total	
Town	690	4%	2,163	13%	2,561	15%	4,090	25%	4,839	29%	2,236	13%	16,579	100%
County	45,072	5%	100,549	12%	120,727	14%	216,208	25%	240,037	28%	139,534	16%	862,127	100%
State	186,188	5%	432,367	12%	495,626	14%	872,640	24%	1,031,900	29%	575,757	16%	3,594,478	100%

Economics

Business Profile (2018)

Sector	Units	Employment
Total - All Industries	384	4,276
23 - Construction	42	305
31-33 - Manufacturing	25	1,241
44-45 - Retail Trade	40	410
62 - Health Care and Social Assistance	25	330
72 - Accommodation and Food Services	32	331
Total Government	16	570

Top Five Grand List (2018)

	Amount
Kerite LLC	$13,186,680
Janesky Lawrence M & Wendy S	$13,152,510
Connecticut Light & Power	$12,037,140
LCP Supermarkets Remainder 2000 LLC	$5,897,500
Klarides Family Associates LLC	$5,569,690
Net Grand List (SFY 2016-2017)	$1,194,572,950

Major Employers (2018)

Contractor Nation
Microboard Processing Inc
Shady Knoll Health Center
Kerite
Raf Electronic Hardware

Education

2018-2019 School Year

	Grades	Enrollment
Seymour School District	PK-12	2178

Smarter Balanced Test Percent Above Goal (2017-2018)

	Grade 3		Grade 4		Grade 8	
	Town	State	Town	State	Town	State
Math	49.1%	53.8%	50.3%	51.3%	42.8%	43.0%
ELA	54.0%	53.1%	56.8%	54.9%	45.3%	56.1%

Pre-K Enrollment (PSIS)

	2018-2019
Seymour School District	21

Rate of Chronic Absenteeism (2017-2018)

	All
Connecticut	10.7%
Seymour School District	9.6%

4-Year Cohort Graduation Rate (2017-2018)

	All	Female	Male
Connecticut	88.3%	91.8%	85.1%
Seymour School District	93.7%	91.7%	95.3%

Public vs Private Enrollment (2013-2017)

	Town	County	State
Public	90.7%	88.2%	86.8%
Private	9.3%	11.8%	13.2%

Seymour, Connecticut

CERC Town Profile 2019

Connecticut Economic Resource Center

Government

Government Form: Selectman - Town Meeting

Total Revenue (2017)	$62,409,174	Total Expenditures (2017)	$60,505,572	Annual Debt Service (2017)	$4,768,689
Tax Revenue	$43,716,188	Education	$38,331,124	As % of Expenditures	7.9%
Non-tax Revenue	$18,692,986	Other	$22,174,448	Eq. Net Grand List (2017)	$1,707,622,371
Intergovernmental	$17,391,415	Total Indebtedness (2017)	$39,350,000	Per Capita	$102,974
Per Capita Tax (2017)	$2,607	As % of Expenditures	65.0%	As % of State Average	68.2%
As % of State Average	88.9%	Per Capita	$2,373	Moody's Bond Rating (2017)	-
		As % of State Average	94.4%	Actual Mill Rate (2017)	36.00
				Equalized Mill Rate (2017)	25.31
				% of Net Grand List Com/Ind (2017)	9.3%

Housing/Real Estate

Housing Stock (2013-2017)

	Town	County	State
Total Units	6,736	365,546	1,507,711
% Single Unit (2013-2017)	65.9%	53.6%	59.2%
New Permits Auth (2017)	8	750	4,547
As % Existing Units	0.1%	0.2%	0.3%
Demolitions (2017)	4	202	1,403
Home Sales (2017)	168	4,763	21,880
Median Price	$243,400	$244,400	$270,100
Built Pre-1950 share	30.6%	33.2%	29.3%
Owner Occupied Dwellings	4,311	204,037	906,798
As % Total Dwellings	70.1%	62.3%	66.6%
Subsidized Housing (2018)	401	46,013	167,879

Distribution of House Sales (2017)

	Town	County	State
Less than $100,000	2	106	536
$100,000-$199,999	45	1,232	5,237
$200,000-$299,999	56	1,785	6,681
$300,000-$399,999	51	888	3,863
$400,000 or More	14	752	5,563

Rental (2013-2017)

	Town	County	State
Median Rent	$1,072	$1,100	$1,123
Cost-burdened Renters	46.9%	54.5%	52.3%

Labor Force

	Town	County	State
Residents Employed	8,616	438,576	1,827,070
Residents Unemployed	385	20,171	78,242
Unemployment Rate	4.3%	4.4%	4.1%
Self-Employed Rate	6.4%	8.5%	10.0%
Total Employers	384	24,958	122,067
Total Employed	4,276	366,848	1,673,867

Connecticut Commuters (2015)

Commuters Into Town From:		Town Residents Commuting To:	
Seymour, CT	850	Seymour, CT	850
Waterbury, CT	294	Shelton, CT	680
Ansonia, CT	284	Stratford, CT	626
Oxford, CT	250	New Haven, CT	568
Naugatuck, CT	218	Milford, CT	362
Shelton, CT	172	Bridgeport, CT	345
Beacon Falls, CT	150	Derby, CT	282

Quality of Life

Crime Rates (per 100,000 residents) (2017)

	Town	State
Property	781	1,777
Violent	74	228

Disengaged Youth (2013-2017)

	Town	State
Female	0.0%	4.2%
Male	0.0%	5.6%

	Town
Library circulation per capita	3.76

Distance to Major Cities

	Miles
Hartford	35
New York City	66
Providence	92
Boston	126
Montreal	290

Residential Utilities

Electric Provider
Eversource Energy
(800) 286-2000

Gas Provider
Eversource Energy
(800) 989-0900

Water Provider
Aquarion Water Company
(800) 732-9678

Cable Provider
Comcast Seymour
(800) 266-2278