

# 29 Southington

# **Community Overview**

The Town of Southington is a suburban community that covers 35.9 square miles of land and has a population of 43,069 (2010 census), giving it a population density of 1,200 people per square mile. Elevation ranges from approximately 110 feet to 930 feet. The majority of Town drains to the Quinnipiac River, although the eastern edge of town drains to the Mattabesset River in Berlin. Aside from the Quinnipiac River, other major streams in Southington include Cussgutter Brook, Eightmile River, Roaring Brook, Hamlin Brook, and Misery Brook.

While historically an agricultural community, Southington now has large industrial and commercial districts and a revitalized downtown. Southington also has several designated historic districts. Interstate Highways 84 and 691 pass through Town; other major transportation routes include Routes 10, 120, 177, 229, 322, and 364. The Town is part of the CTFastrak bus rapid transit system providing bus services to Hartford and Waterbury. Major businesses and industries include retail, accommodation and food services, health care and social assistance, and manufacturing. Recent commercial and industrial development has been a mix of new development and redevelopment and infill, with redevelopment occurring downtown. Residential development has continued throughout Town.

#### **Critical Facilities**

Critical Facilities throughout the Capitol Region are listed in Appendix B. In Southington these include the Fire Stations, Police Department (Emergency Operations Center), Water Department, Water Pollution Control Facility, Municipal Center, Calendar House (Senior Center), JFK Middle School, and DePaolo Middle School.

**Table 29-1: Critical Facilities, Southington** 

Facility	Shelter	Generator
Fire Department Headquarters	Primary	Yes
Fire Stations		Yes
Police Department (EOC)		Yes
Water Department		Partial
Water Pollution Control Facility		Partial
Municipal Center		
Calendar House (Senior Center)	Yes (uncertified)	Yes
JFK Middle School	Secondary	Yes
DePaolo Middle School	Secondary	Yes

The Fire Headquarters is the Town's primary shelter, and recently installed a new generator. Southington is currently continuing ongoing renovations to the Calendar House (Senior Center). The facility functions as an emergency shelter and has a generator, but is not Red-Cross certified. It is possible that following renovations the facility will be able to be certified. The

two secondary shelters are the JFK Middle School and the DePaolo Middle School; each has had new generators installed since adoption of the 2016-2021 Hazard Mitigation Plan for the Former Central Connecticut Region ("2016 HMP").

The Town is interested in relocating the EOC to the Fire Department Headquarters, which has more available space and equipment.

#### Capabilities

Southington plans and documents relevant to hazard mitigation include:

- **Plan of Conservation & Development, 2016:** Promotes infrastructure improvements and open space preservation. Describes flood hazards and elements of a river corridor.
- Municipal Building Codes, 2003: follows CT State Building Code and IBC 2003.
- Inland Wetlands and Watercourses Regulations, 2013
- Zoning Regulations, 2017: Flood Damage Prevention Regulations apply to all SFHA
  identified in the FIS. Buildings must be elevated two feet above BFE in residential, or
  one foot if non-residential. Mandates zero increase in runoff in flood plain areas.
- **Subdivision Regulations, 2005:** Require minimizing risk of flood damage and designing drainage to reduce flood exposure.
- Emergency Operations Plan, 2014-2015

Southington has inventoried all shelters and warming/charging stations, developed a shelter plan to guide response activities, and invests in shelter supplies twice a year. The Health Department maintains a list of vulnerable populations and assists with evacuations as needed.

The Town provides training for its emergency personnel and participates in DEMHS Region 3 regional emergency planning. Southington has also maintained a Community Emergency Response Team (CERT) since 2015. CERT volunteers train in disaster preparedness and response, and assist during emergencies. The CERT staffs the emergency shelter when it is activated and educate the community about disaster preparedness. They have an online emergency preparation and response resource library.

The Everbridge emergency notification system has been implemented town-wide. The Town developed a household preparedness pamphlet and posted it on its website, and hands it out at a variety of events. The Town also provides preparedness training in local schools using the FEMA Student Training in Emergency Preparedness (STEP) program.

Southington has participated in the National Flood Insurance Program (NFIP) since 1981 and intends to continue participation. No major buildings/structures are located in floodplains, and the Town generally discourages building in floodplains. The Planning and Engineering Departments perform enforcement and outreach regarding floodplain activities. Outreach typically occurs on a case-by-case basis.



When heavy rain is predicted, the Town will divert traffic from roads at risk of flooding. The Town has an annual inspection and maintenance schedule for its bridges and culverts.

Drainage and flooding complaints are typically sent to the Engineering or Highway Departments. The Fire Department has six pumps it uses to assists with basement pump outs when needed.

Public Works consistently undertakes bridge replacement projects. New designs use the most recent Northeast Regional Climate Center (NRCC) rainfall return periods in accordance with December 2014 CT DOT guidance. The Town has not evaluated existing culverts based on the new rainfall return periods.

The Town's Open Space and Land Acquisition Committee cites "water quality / resource protection" and "flood control" as two of its rationales for acquisitions. The Town owns an open space parcel at 1 Hightower Road that equals 13,610 cubic yards of flood storage space. The Town sells the flood storage to developers who need to conduct mitigation activities. This storage attenuates peak flows caused by the increase in impermeable surfaces with development that occurs in the watershed. The area has space for future expansion.

Removal of ice and snow for town-owned roads is handled by town workers and contractors, and is reportedly very effective. The Town handles debris removal. Snow drifts are mitigated through additional plowing efforts, while icing is mitigated through the use of additional road treatment. The Town has an informal program to review snow accumulation on town-owned roofs each winter, with clearing occurring when depths are sufficiently deep or wet.

Southington does not have specific policies for requiring burial of utilities, though it is generally encouraged during site plan review. Nearly all recent development has buried utilities.

Town departments have sufficient supplies for the next major storm event. Several chainsaws and a wood chipper are available for cleanup activities. A chipping and trimming contractor is on-call large jobs. Tree complaints are directed to the Town Engineer. The Town performs tree maintenance for town properties and rights-of-way; the tree maintenance budget has increased from \$19,000 a year in 2015 to \$38,000 a year in 2018, in line with actions from the 2016 HMP. Much of the trimming near power lines is conducted by Eversource Energy.

The Fire Department maintains mutual aid agreements with all surrounding communities. Most of Southington has public water service, and tankers are used to shuttle firefighting water into outlying areas. There is one dry hydrant at Crescent Lake; the hydrant is undersized and embedded in the dam such that upgrading it would be difficult. A variety of all-terrain vehicles assist with fighting wildfires. The Town has two certified Open Burning Officials.



The Town Water Department maintains an Emergency Contingency Plan that outlines response procedures for droughts. The Department is a member of the regional Water Utility Coordinating Committee. Yield tests of new wells is required in certain areas.

Southington owns six dams including one Class C (high hazard) and one Class B (significant hazard), all in good condition. Inspections are performed in accordance with DEEP regulations. The Emergency Action Plans (EAPs) for Town dams will be revised in accordance with DEEP guidance. Several other high hazard dams are owned by the New Britain Water Department, but it is believed that the failure of these dams would not have a significant impact in Southington. The Town has copies of EAPs prepared for other dams whose failure could affect Southington; this information is maintained by the Emergency Management Director.

# **New Capabilities**

Southington updated its Flood Damage Prevention Regulations in 2017.

In 2015, the West Queen Street bridge was replaced, and Old Mountain Road bridge was replaced with a culvert, using money from the state local bridge program. The West Center Street Bridge deck repair is expected to be completed within 2018. A bridge on Interstate-84 was completed by Connecticut DOT since the 2016 HMP.

Southington recently excavated an area within a floodplain on Farmstead Street to provide additional flood storage, but the project does not appear to have resolved the issue.

A low hazard, two-foot high run-of-the-river dam on the Quinnipiac River has been removed in the vicinity of the bowling alley on Route 10. This may provide a minimal flood benefit to nearby properties.

# Challenges

#### Challenges Overview

The top three natural hazards that present a high risk to Southington are flooding, winter storms, and tropical storms/hurricanes.

Southington experiences recurrent flooding throughout Town, with localized flooding at known locations 4-5 times per year. The town is relatively flat, so floodwaters tend to recede slowly. West Main Street, Woodruff Street, Curtiss Street, North Main Street, Pratt Street, River Street, and Shweky Lane in the Plantsville area along the Quinnipiac are hard-hit by flooding. This area has an undersized drainage system with outlets near the level of the River; when the river rises, backwater conditions inhibit drainage. The Town has identified areas of recurrent flooding along other sections of Route 10, Mill Street, and Curtiss Street. The lower section of Eden Avenue and the intersection of Main and South Main Street, experience flooding due to poor drainage. Another site of concern is Grove and Main Street Church. A channel running across private land near Woodruff Street is undersized.



Drainage problems are sometimes created due to property modifications; developments originally approved with drainage mitigation measures are sold to a new owner who eliminates them. The Town does not have jurisdiction over private drainage systems.

During winter storms ice and snow make roads impassable and down tree limbs, disrupting utility service. People can become stranded in their homes, potentially without heat or power. Higher elevations may be at a greater risk. Following Winter Storm Alfred in late October 2011, power was lost for nine days to most customers, with some power not restored for two weeks. Many restaurants did not have backup power and there was significant spoilage.

A few areas, such as those near large fields, are prone to drifting snow. Following the January 2013 blizzard, snow removal was the primary financial impact. Two commercial roofs were reported collapsed due to this event. No significant impacts due to icing have been observed in recent years. Ice jam flooding tends to be localized. Areas on the east side of Town near the reservoir, and open areas with higher elevation, generally have icing during winters.

Following Tropical Storm Irene in 2011, power was lost for approximately one day in Southington, although some residents lost power for up to five days. A maximum of 3,854 customers were without power. Damages during Tropical Storm Sandy were relatively minimal.

Southington has not experienced any wildfires in the last few years. The greatest areas of concern are those that do not have public water service along the eastern and western ridgelines. These areas are believed to be at high risk of a fire as the forest floor is littered with debris from previous major storms. Access can be difficult in these areas.

More than 20 dams could affect the Town of Southington with their failure, and five Class C (high hazard) dams lie within the Town boundaries. This is summarized in the table below. Potential losses downstream of Class C dams could be catastrophic, while potential losses downstream of Class B (significant hazard) dams could be significant.



Table 29-2: Summary of Dams Whose Failure Could Significantly Impact Southington

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Dam Name	Hazard Class	Dam Use	Dam Condition	Owner	Downstream Watercourse
New Britain (Wolcott) Reservoir Dam	С	Water Supply	Satisfactory	City of New Britain	Roaring Brook
New Britain (Wolcott) Reservoir Dike	С	Water Supply	Not Rated	City of New Britain	Roaring Brook
Plainville Reservoir Dam	С	Water Supply	Not Rated	Southington Water Department	Tributary to Patton Brook
Southington Reservoir #1  Dam	В	Water Supply	Not Rated	Town of Southington	Humiston & Thompson Brook
Southington Reservoir #3  Dam	С	Water Supply	Fair	Town of Southington	Humiston Brook
Spring Lake Dam	С	Recreation	Not Rated	Private	Quinnipiac River
Wasel Reservoir Dike	С	Water Supply	Satisfactory	City of New Britain	Mattabassett River

The privately-owned Spring Lake Dam is a high hazard (Class C) dam that has a maintenance issue that has been identified by DEEP. DEEP and the dam owner are reportedly working to address the issue. A 100-home subdivision and other development is located close to the dam immediately downstream in the likely inundation area near Woodruff Road and Marcy Drive.

#### **Hazard Losses**

The economic losses faced by the community from natural hazards can be estimated by reviewing historic, and modeling future, loss figures. Loss estimates are summarized below.

# Historic FEMA Payments

FEMA reimburses communities for hazard losses through programs including Public Assistance (PA) and the National Flood Insurance Program (NFIP). Combining PA and private flood insurance payments can give an estimate for total losses to a community.

The NFIP has paid 86 property damage claims in Southington totaling \$770,413.60 to date; 30 of those payments have been repetitive loss (RL) property damage claims on 10 properties, totaling \$541,025.91.

Total PA reimbursements to the community were as follows:

Flood Events: \$4,475 (\$236 annually)

Hurricane Events: \$196,584 (\$10,347 annually)

Winter Storm Events: \$2,420,907 (\$127,416 annually)

These are summarized in the tables below.



Table 29-3: Flood Event PA Reimbursements, Southington

Incident	Sep 1999	Oct 2005
Declaration	9/23/1999	12/16/2005
Disaster No.	1302	1619
Entity	FEMA PA Re	imbursement
State	\$1,998	\$2,477
Municipal	\$0	\$0
Nonprofit	\$0	\$0
Total	\$1,998	\$2,477
Annualized	\$105	\$130

Table 29-4: Hurricane Wind Event PA Reimbursements, Southington

	,	
Incident	Aug - Sep 2011	
	(T.S. Irene)	
Declaration	9/2/2011	
Disaster #	4023	
Entity	FEMA PA Reimbursement	
State	\$2,655	
Municipal	\$193,929	
Nonprofit	\$0	
Total	\$196,584	
Annualized	\$10,347	

Table 29-5: Winter Storm PA Reimbursements, Southington

Incident	Mar	Dec	Jan	Feb	Jan	Oct	Feb
incident	2003	2003	2005	2006	2011	2011	2013
Declaration	3/11/03	1/15/04	2/17/05	5/2/06	3/3/11	11/17/11	3/21/13
Disaster #	3176	3192	3200	3266	1958	4046	4106
Entity		FEMA PA Reimbursement					
State	\$37,343	\$33,477	\$44,166	\$53,607	\$46,707	\$24,123	\$95,494
Municipal	\$126,691	\$145,186	\$163,592	\$159,505	\$120,185	\$1,046,690	\$293,352
Nonprofit	\$0	\$0	\$0	\$0	\$1,165	\$0	\$29,622
Total	\$164,035	\$178,663	\$207,758	\$213,112	\$168,057	\$1,070,813	\$418,469
Annualized	\$8,633	\$9,403	\$10,935	\$11,216	\$8,845	\$56,359	\$22,025

# National Centers for Environmental Information Losses

The table below summarizes events in the National Centers for Environmental Information (NCEI) severe storm database that were specifically noted as having impacted the community since 2012.



Table 29-6: NCEI Database Losses since 2012, Southington

		, ,
Date	Event	Property Damage
10/8/2014	Thunderstorm Wind	\$10,000
6/23/2015	Thunderstorm Wind	\$40,000
8/13/2016	Thunderstorm Wind	\$5,000
Total		\$55,000

NCEI losses under other event categories (such as drought, high wind, flooding, and winter storms) were not specifically noted as impacting this community, though they did impact Hartford County and nearby towns. NCEI losses are reported in Section II of this Plan.

#### **HAZUS-MH Losses**

CRCOG used FEMA's Hazus-MH model to analyze the risks that the community might face from flooding, hurricanes, and earthquakes. The model estimates economic losses to the town due to damage to buildings and building contents, as well as other economic disruptions. Both residential and commercial structures are addressed. Losses from different hazards are summarized below. Where available, estimates from the previous and current versions of the HMP are provided side-by-side; differences between the two may have been caused by a combination of the following:

- Changes in methodology: such as hazard zone mapping
- Changes in data: such as population and property values
- Changes in the model: this HMP utilized Hazus-MH version 4.0 rather than 2.1
- Other factors: inherent in a complex software like Hazus-MH

More details are available in the Multi-Jurisdictional HMP. Ultimately, changes in the loss estimates reflect the reality that small differences in hazard event features can have a significant impact on losses incurred.

Table 29-7: Estimated Damages to Southington from a 1% Annual-Chance Flood

Loss Type	2014 Results	2018 Results	
Households Displaced	289	469	
People Needing Shelter	542	632	
Buildings at Least Moderately Damaged	48	0	
Economic Losses			
Residential Building & Content Losses	\$16,370.000	\$20,201,183	
Other Building & Content Losses	\$16,800,000	\$42,154,536	
Total Building & Content Loss	\$33,170,000	\$62,355,719	
Total Business Interruption Losses	\$80,000	\$2,511,753	
TOTAL	\$33,240,000	\$64,867,473	



Table 29-8: Estimated Damages to Southington from a 1% Annual-Chance Hurricane

Loss Type	2014 Results (1938 event)	2018 Results (1% track)		
Buildings at Least Moderately Damaged	5,096	1		
Buildings Completely Damaged	59	0		
Total Debris Generated	522,484	1,238		
Truckloads (at 25 tons/truck) of building debris	20,899	50		
Economic Losses				
Residential Building & Content Losses	\$115,541,930	\$6,543,762		
Other Building & Content Losses	\$24,559,920	\$146,542		
Total Building & Content Loss	\$140,101,850	\$6,690,304		
Total Business Interruption Losses	\$4,201,560	\$18,450		
TOTAL LOSSES	\$144,303,410	\$6,708,754		

Losses were calculated from a modeled probabilistic earthquake (1% annual-chance of occurrence), as well as for four specific scenarios with epicenters around Connecticut.

Table 29-9: Estimated Damages to Southington from a Probabilistic Earthquake

Loss Type	2018 Results
Wage Loss	\$6,407
Rent Loss	\$4,811
Relocation Loss	\$9,069
Income Loss	\$4,804
Inventory Loss	\$790
Total Business Disruption	\$25,881
Structural Loss	\$18,278
Non-Structural Loss	\$59,200
Total Building Loss	\$77,478
Total Content Loss	\$24,526
TOTAL LOSSES	\$127,885

Table 29-10: Estimated Damages to Southington from Modeled Earthquake Scenarios

Epicenter Location	Magnitude	Estimated Total Losses
East Haddam	6.4	\$611,679.49
Haddam	5.7	\$185,041.55
Portland	5.7	\$563,378.10
Stamford	5.7	\$17,869.67

#### Other Hazard Costs

The following table reflects the Town's annual tree maintenance budget for the last several years. While not directly a loss estimate, these figures give an estimate of the annual cost the Town faces to prevent trees from falling or dropping limbs during hazard events.



Year	Annual Tree Budget
2015	\$19,000
2016	\$23,000
2017	\$38,000
2018	\$38,000

The table below considers the impact of Severe Winter Storms on the Town of Southington based on Winter Storm Alfred in late October 2011. The biggest impact was the power outage, although debris removal was the biggest financial impact.

Impact of Severe Winter Storm	Estimated Losses from a Severe Winter Storm Comparable to Winter Storm Alfred (October 2011)
Number of Electrical Customers Served (2013)	19,422
Maximum Outages During Severe Winter Storm (2011)	13,457
Maximum Outages Percentage of Customers (2011)	69.29%
Number of Businesses Experiencing Outages	15
Total Lost Wages (Daily)	\$2,331.62
Average Lost Wages (Weekly)	\$39,730.00
Miles of Local Roads Plowed by Town of Southington	226.61
Municipal Cost (Plowing, Road Treatment, debris cleanup)	\$1,046,690.17

Source: Eversource, CCRPA Internal Analysis

# Average Annualized Losses

Average Annualized Loss (AAL) figures are useful tools for comparison of the risks faced from different hazards with different likelihoods of occurring in a given time period. AAL estimates were prepared for each natural hazard which may impact Southington based on the methodologies discussed in Section II of the Multi-Jurisdictional HMP. Dam failure, drought, tornado, and wildfire losses were sourced from the 2014 Connecticut Natural Hazard Mitigation Plan Update, with dam failure data supplemented by the National Performance of Dams Program and the Connecticut Department of Energy & Environmental Protection. Earthquake and hurricane losses were calculated in HAZUS-MH. Losses for flooding came from NFIP claims, for winter storms from Public Assistance Reimbursements, and for thunderstorms from the NCEI database. These are presented in the table below in dollars per year. Note that Hurricanes and Tropical Storms represent the largest share of total annualized losses.

Table 29-11: Average Annualized Losses, Southington

Table 25-11. Average Almaanzea Losses, Southington									
Dam Failure	Drought	Earthquakes	Flooding	Hurricanes and Tropical Storms	Severe Winter Storms	Thunderstorms	Tornadoes	Wildfires	Total
\$77	\$0	\$86,576	\$20,510	\$2,699,933	\$127,416	\$5,720	\$631,903	\$6,675	\$3,758,810



# Losses Summary

A review of the above loss estimates demonstrates that the Town of Southington has experienced significant expenses as a result of natural hazards, and is at risk for additional losses if some of the less-frequent events were to occur. These actual and potential losses justify hazard mitigation actions to reduce losses in the future.

# Mitigation Strategies and Actions

# Noted Hazard Mitigation Needs

During Plan development, multiple hazard mitigation needs of Southington were noted.

- The Town wishes to update its Emergency Operations Plan to include procedures specific to the liquid propane plant at the north end of Town.
- Improvements in local communications still need to occur, such as the purchase of satellite phones for certain departments to ensure emergency communications can be maintained during extensive outages.
- An enclosed trailer to store and move an existing portable generator owned by the Town is needed. Southington is interested in participating in a regional generator sharing program that would be able to provide generators on loan to support local businesses.
- The Town wishes to formalize the requirement for underground utilities. The requirement would not apply for areas where it is not feasible such as those with shallow ledge. The Town would like to relocate power lines in Plantsville and downtown Southington underground.
- Outreach to businesses is needed about generator installation and safety.
- Many winding and narrow roads in Southington could be widened as these pose risks to egress during storms.
- Specific areas in need of tree trimming include Pleasant Street between the High School and Middle School, Woodruff Street to Berlin Avenue, Meriden Avenue (Route 120) to South End Road, and Flanders Road.
- Town staff have indicated that new dry hydrants would be useful near Crescent Lake and on the east side of town near West Ridge.
- The Town wishes to relocate the EOC from the Police Department to the Fire Department Headquarters.

# Status of Previous Mitigation Strategies and Actions

The Town of Southington reviewed the mitigation actions proposed in the 2016 HMP and determined the status of each. That information is included in the table below.



Table 29-12: Status of Previous Mitigation Strategies and Actions, Southington

Action #	Table 29-12: Status of Previous Mitigation S  Action	Notes	Status				
GOAL: R	REDUCE LOSSES OF LIFE AND PROPERTY, AND MIN	IIMIZE ECONOMIC CONSEQUENCES OF	NATURAL				
	HAZARDS						
Ol	pjective 1: Increase capacity to shelter large numl	bers of people in the case of an emerge	ency				
1.1	Complete renovations of the Calendar House for use as the primary shelter. The Town is renovating this facility to be the Town's primary shelter. A generator upgrade is required as part of the renovations. The existing generator at the Calendar House will be moved to the Town Hall.	Calendar House renovations are currently underway and scheduled to be completed by the end of 2018.  This action item is considered complete.	Completed				
2.1	Acquire emergency generators for critical facilities. The Town has identified several generator needs in addition to the Calendar House above. The Municipal Center houses many Town functions and needs a generator. Another identified need is to acquire an enclosed trailer to house and move an existing portable generator owned by the Town.	Town applied for grant money through CT DEHMS, which was approved. Town obtained a 15KW generator in 2018.  Although town obtained an enclosed trailer through EMPG money, it did not meet the desired specifications. Staff currently looking to modify a highway truck. Town still needs a generator and additional equipment such as a transfer switch for the municipal center and town hall.	Carry Forward with Revisions				
Obje	ective 2: Improve capacity to deal with hazards by	investing in necessary equipment & tr	aining				
2.2	Increase capacity of the drainage system in Plantsville. Grant funding is necessary to perform this work as it will be a multi-million dollar project to replace the drainage systems. In addition, the solution may not work for more severe flood events.	Discontinue action. Town has no control over this land. It is State and private property.	Drop				
2.3	Update Town Emergency Operations Plan to include procedures specific to the liquid propane plant. A liquid propane plant lies on the north end of town. The Town wishes to update its Emergency Operations Plan to include procedures specific to this facility.	Emergency Operations Plan (EOP) updated in 2015-2016 but did not include this action item. EOP currently being amended to include this.	Carry Forward				
2.4	Purchase equipment to ensure emergency communications between Town departments. The Town wishes to acquire satellite phones to ensure communication can be maintained with the Health Department and other departments during extended power outages.	Discontinue action. Acquiring satellite phones would be cost prohibitive for the Town and is not considered necessary.	Drop				
2.5	Participate in a regional generator sharing program. The Town wishes to partner with other communities to participate in a regional generator sharing program. This would provide a pool of generators that could be shared between communities during extended outages to support local businesses.	Town has not successfully created any such partnerships, and does not feel it has the capacity to take the lead on such a project. It will pursue participation if a regional generator sharing program is initiated.	Drop				



Action #	Action	Notes	Status
2.6	Install a new dry hydrant at Crescent Lake. The existing dry hydrant is undersized and in a poor location. The Town wishes to install a larger dry hydrant in a more accessible area such as near the dock.	This could not be implemented in the past five years due to funding constraints.	Carry Forward
	Objective 3: Improve citizen notification	, awareness, and response time	
3.1	Formalize the requirement for underground utilities in new developments. The Town wishes for a formal requirement for underground utilities except in those areas where it is not feasible. Separate requirements may be needed for subdivisions vs. individual properties. Strengthen subdivision regulations.	This could not be implemented due to other priorities within the past five years. Change priority to Medium.	Carry Forward with Revisions
3.2	Conduct outreach to businesses regarding generator safety and wiring needs. The Town will perform outreach to businesses regarding how generators work and pre-wiring requirements such that generators can be safely used during extended power outages.	Businesses are now required to obtain a permit to do wiring. Outreach could not be conducted as planned due to staff shortage.	Carry Forward
3.3	Widen narrow streets near intersections where bottlenecks could occur. The Town will review existing narrow streets to determine where widening could occur and add such areas to the capital project list if possible.	Town performs road improvements as needed. This action is not considered necessary.	Drop
3.4	Increase tree maintenance budget to allow for additional trimming along Town roads. The Town will work to increase the tree maintenance budget in order to allow trimming along Town-owned roads to occur. Such trimming would only occur opposite power lines or along roads with buried utilities.	Tree budget was nearly doubled over last two years. Staff does not anticipate any more increases to this budget in the near future.	Completed
3.5	Review outlying areas for potential wildfire risk. The Town will review outlying parcels for potential fire risk by considering debris accumulation and access issues in these areas.  Potential strategies and actions could also be developed to address higher risk areas.	There have been no significant fires in West Ridge since 1999; the risk is minor for brush fires. The Town does not feel additional assessment it necessary at this time.	Drop
3.6	Update Emergency Action Plans for Town- owned dams. The Town will update the Emergency Action Plans for its dams to meet the recently revised DEEP guidance.	Discontinue action. CT DEEP removed a dam near bowling alley for promoting recreational access. This is not town-owned.	Drop
3.7	Incorporate updated hazard mitigation information into community plan updates. Hazard mitigation information will be incorporated into future plan updates of the POCD and other planning documents.	POCD was recently updated and adopted in spring 2016. It has a section addressing utility needs and concerns. Future POCD update will be done in 8 years.	Completed



Action #	Action	Notes	Status
3.8	Encourage sign-ups for the Everbridge emergency notification system. The Town recently contracted with Everbridge to provide a town-wide emergency notification system. Targeted mailings may be used to encourage signups in particularly vulnerable areas, such as special flood hazard areas and dam failure inundation areas.	On-going. Town does it through the town website and through town meetings. This is a capability	Capability
3.9	Encourage the owner of Spring Lake Dam and the Connecticut DEEP to complete repairs. The Town will encourage the owner of Spring Lake Dam and the Connecticut DEEP to ensure repairs and maintenance of the dam are being performed properly.	The Town has not held any conversations with the Spring Lake Dam owner or the CT DEEP, but they also have not received complaints from that area. CT DEEP is responsible for ensuring dam owners are performing proper repair and maintenance and the Town is confident in their ability.	Drop
3.10	Participate in the statewide Water Utility Coordinating Committee process. The Connecticut DPH is preparing a Coordinated Water Supply Plan for the entire state beginning in 2016. The Town Water Department will participate to ensure that drought-related public water supply needs are met throughout the community.	Southington falls within the Central WUCC and is participating in the process. Drought concerns include changing rainfall patterns with more rainfall occurring in spot events and more time between rainfall events, resulting in drier soils, lower groundwater tables, and potential impacts to groundwater safe yield	Completed
3.11	Ensure local officials have most updated version of the Connecticut Drought Management Plan. The Connecticut Drought Management Plan is periodically updated. Local officials, land use commissions, health departments, fire departments, and local water utilities should all be made aware of updates to this plan.	Current Drought Plan is still from 2003, update is still in development. Town will ensure officials have access to the most updated version when it is adopted	Capability
	Objective 4: Mitigate impacts to properties in	the National Flood Insurance Program	
4.1	Work with private property owners to mitigate channel constrictions that exacerbate flooding. Streams run across private property in many areas of town and the Town cannot maintain channels in these areas directly. The Town will work with private property owners to remove constrictions and/or widen channels to mitigate exacerbation of flooding conditions.	Continue action. Town staff sent letters out to areas at risk or areas from where complaints were received.	Carry Forward
4.2	Clear trees and other blockages along the Quinnipiac River. A significant amount of woody debris reportedly clogs the Quinnipiac River, exacerbating flood conditions. The Town will investigate and clear woody debris from the channel bed and river banks to prevent blockages.	This was done in 2017 by volunteers for putting kayaks in the river. This is done periodically by volunteers or the Town and is considered a capability.	Capability



Action #	Action	Notes	Status
4.3	Evaluate costs and benefits of joining FEMA Community Rating System and enter program if justified. Participation in the CRS can reduce the cost of flood insurance for residents and businesses. The lowest level of participation in the program will reduce the cost of insurance by 5%. This would require municipal staff time or outside help to initially set up.	There are not many vulnerable properties in Southington that would benefit from this program. Therefore, not feasible to undertake this action.	Drop
4.4	Update the local floodplain management ordinance to meet current model ordinance requirements. The Town of Southington last updated this ordinance in 2008. Since that time, FEMA and the Connecticut DEEP have revised the model ordinance.	Ordinances updated in 2017 to comply with FEMA requirements.	Completed
4.5	Work with RLP owners to mitigate RLPs upon property owner request. Repetitive loss properties in Southington are typically only damaged during severe flood events. Ten repetitive loss properties are located in Southington that have experienced 30 flood losses. Mitigation could include acquisition/demolition, elevation, floodproofing, or other techniques.	Town will assist owners upon request; lead department is now Wetlands Officer. This is a capability. There are now nine repetitive loss properties in Southington.	Capability

# Active Mitigation Strategies and Actions

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.

Each of the following actions has been prioritized based on FEMA guidelines, listed from highest to lowest priority, and numbered.

# Action #1 Consider and document the labor resource needs and benefits of participation in the Sustainable CT program.

Goal	Increase the use of natural, "green," or "soft" hazard mitigation measures, such as open space preservation and green infrastructure.
Category	Natural Resources Protection
Lead	Planning
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	01/2019 - 12/2019
Priority	High



# Include procedures specific to the liquid propane plant in the Town's Emergency Operations Plan

Goal	7. Improve the emergency response capabilities of the region and its communities
Category	Preparedness & Emergency Response
Lead	Planning
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	07/2019 - 06/2020
Priority	High

#### Action #3

# Purchase new generator for the municipal center.

Goal	7. Improve the emergency response capabilities of the region and its communities
Category	Preparedness & Emergency Response
Lead	Emergency Management
Cost	\$10,000 - \$25,000
Funding	Town Operating Budget / DEMHS
Timeframe	01/2019 - 12/2020
Priority	High

#### Action #4

# Construct dry hydrants and cisterns on the east side of town and near West Ridge

Goal	7. Improve the emergency response capabilities of the region and its communities
Category	Preparedness & Emergency Response
Lead	Fire Department
Cost	\$25,000 - \$50,000
Funding	CT DEEP
Timeframe	07/2020 - 06/2021
Priority	High

#### Action #5

Conduct outreach to local small businesses with the aim of preventing the accidental release and pollution from chemicals stored and used at their facilities during or following natural hazard events.

•	
Goal	6. Improve public outreach, education, and warning systems
Category	Education & Awareness
Lead	Planning, in coordination with DEEP
Cost	\$0 - \$10,000
Funding	Materials & Resources Provided by CT DEEP
Timeframe	01/2019 - 12/2019
Priority	Medium



Coordinate with NEMO and CRCOG to share resources and gain technical support for hazard mitigation actions involving stormwater management and public outreach, which have parallel benefits related to MS4 stormwater permit compliance.

Goal	Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Prevention
Lead	Public Works
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	01/2020 - 12/2020
Priority	Medium

#### Action #7

# Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.

Goal	<ol><li>Improve institutional awareness and understanding of natural hazard impacts and mitigation within municipal governments and other decision-making bodies</li></ol>
Category	Education & Awareness
Lead	Planning
Cost	\$0 - \$10,000
Funding	Town Operating Budget
Timeframe	07/2019 - 06/2024
Priority	Medium

# Action #8

# Create and adopt Low Impact Development (LID) regulations.

Goal	2. Ensure Municipal Codes and Regulations support hazard mitigation
Category	Prevention
Lead	Planning
Cost	\$10,000 - \$25,000
Funding	Town Operating Budget / Grants
Timeframe	01/2020 - 12/2022
Priority	Medium



# Require installation of underground utilities in all new developments, when feasible, through the Subdivision Regulations.

Goal	Ensure Municipal Codes and Regulations support hazard mitigation
Category	Prevention
Lead	Planning
Cost	\$10,000 - \$25,000
Funding	Town Operating Budget
Timeframe	07/2020 - 06/2022
Priority	Medium

# Action #10

# Work with groceries and gas stations to assist them with installation of emergency generators so they can reopen quickly following hazard events.

Goal	7. Improve the emergency response capabilities of the region and its communities
Category	Preparedness & Emergency Response
Lead	Emergency Management
Cost	\$25,000 - \$50,000
Funding	Town Operating Budget
Timeframe	07/2021 - 06/2023
Priority	Medium

#### Action #11

# Purchase new equipment for snow removal.

Goal	7. Improve the emergency response capabilities of the region and its communities
Category	Preparedness & Emergency Response
Lead	Public Works
Cost	\$50,000 - \$100,000
Funding	Grants
Timeframe	01/2023 - 12/2024
Priority	Medium



Contact the owners of Repetitive Loss Properties and nearby properties at risk to inquire about mitigation undertaken and suggest options for mitigating flooding in those areas. This should be accomplished with a letter directly mailed to each property owner.

Goal	Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Property Protection
Lead	Planning
Cost	\$0 - \$10,000
Funding	Town Operating Budget / DEMHS
Timeframe	07/2021 - 06/2022
Priority	Low

#### Action #13

Coordinate with CT SHPO to conduct outreach to historic property owners to educate them on methods of retrofitting their properties to be more hazard-resilient while maintaining historic character.

Goal	8. Ensure community character and social equity are addressed in mitigation activities
Category	Education & Awareness
Lead	Planning, in coordination with SHPO
Cost	\$0 - \$10,000
Funding	SHPO
Timeframe	01/2021 - 12/2022
Priority	Low

#### Action #14

Coordinate with CT SHPO to conduct historic resource surveys, focusing on areas within natural hazard risk zones (such as flood or wildfire hazard zones and areas near steep slopes), to support identification of vulnerable historic properties and preparation of resiliency plans across the state. This action leverages existing resources and best practices for protection of historic and cultural resources through an ongoing statewide initiative by CT SHPO.

Goal	8. Ensure community character and social equity are addressed in mitigation activities
Category	Property Protection
Lead	Planning, in coordination with SHPO
Cost	\$10,000 - \$25,000
Funding	SHPO
Timeframe	07/2021 - 06/2023
Priority	Low



# Work with CT DEEP to complete a formal validation of the Repetitive Loss Property list and update the mitigation status of each listed property.

Goal	Minimize the impact of natural hazards on physical buildings and infrastructure
Category	Property Protection
Lead	Planning
Cost	\$10,000 - \$25,000
Funding	Town Operating Budget / CT DEEP / DEMHS
Timeframe	07/2021 - 06/2023
Priority	Low

# Action #16

# Work with property owners to remove constrictions and/or widen channels on private property to mitigate exacerbation of flooding conditions.

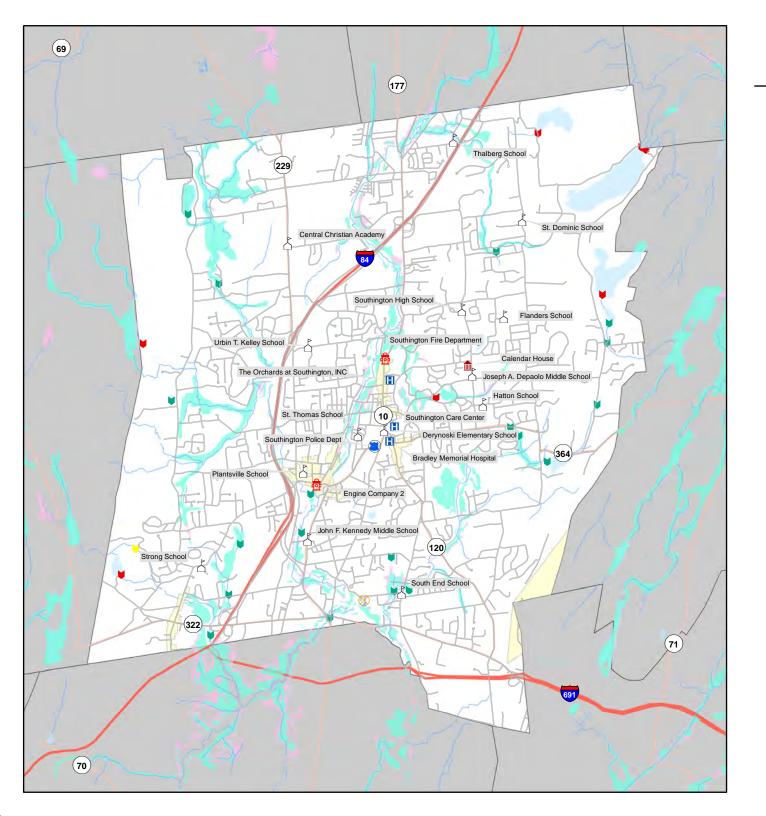
Goal	6. Improve public outreach, education, and warning systems
Category	Education & Awareness
Lead	Public Works
Cost	\$25,000 - \$50,000
Funding	Town Operating Budget
Timeframe	07/2023 - 06/2024
Priority	Low

#### Action #17

# Relocate EOC to Fire Department and convert the current EOC at the Police Station into a backup EOC.

Goal	7. Improve the emergency response capabilities of the region and its communities
Category	Structural Projects
Lead	Emergency Management
Cost	More than \$100,000
Funding	Town Operating Budget / Grants / DEMHS
Timeframe	07/2023 - 06/2024
Priority	Low





# Capitol Region Natural Hazards Mitigation Plan Update

# Southington, Connecticut

Flood Plains, Dams & Critical Facilities

# **Critical Facilities**

- ★ Emergency Center
- Fire Station
- Healthcare Facility
- Police Station
- Public Infrastructure
- State Facility
- Town Facility
- Waste Water Facility
- NRHP Districts/Areas

# **Dam Hazard Class**

- A, AA, BB or Unclassified
- Class B-Significant Hazard

# **FEMA Flood Hazard Area**

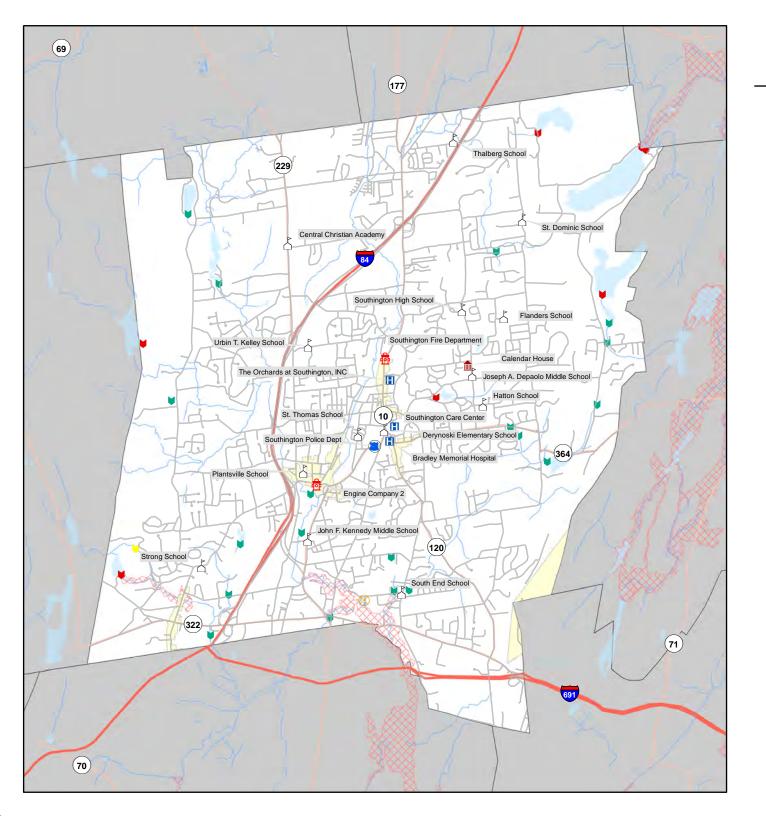
100 Year Flood Zone



Data Sources: FEMA, National Register of Historic Places, CT DEEP, CRCOG, ESRI







# Capitol Region Natural Hazards Mitigation Plan Update

# Southington, Connecticut

Dam Breach Inundation Area & Critical Facilities

# **Critical Facilities**

- \* Emergency Center
- Fire Station
- Healthcare Facility
- Police Station
- Public Infrastructure
- State Facility
- ★ Town Facility
- Waste Water Facility
- NRHP Districts/Areas

# **Dam Hazard Class**

- A, AA, BB or Unclassified
- Class B-Significant Hazard
- ▼ Class C- High Hazard
- Dam Breach Inundation Areas

Data Sources: FEMA, National Register of Historic Places, CT DEEP, CRCOG, ESRI



