



## 26 Simsbury

### Community Overview

Simsbury is a suburban community of about 23,600 encompassing 33.9 square miles. Elevation ranges from about 150 to 500 feet above sea level. Most of Simsbury contributes to the Farmington River Watershed, although a very small portion in the southeast drains to the Park River. Watercourses in town include the Farmington River and Bissell, Grimes, Hop, King Philip, Nod, Minister, Munnisunk, Owens, Saxton, Second, and Still Brooks. Principal industries include agriculture, insurance offices, non-electric blast initiation systems, polypropylene fiber manufacturing, and safety and detonating fuse making. The main transportation routes are north-south state routes 10/202 and 167, and east-west state routes 185, 309 and 315.

Apartment construction has increased sharply in recent years, with approximately 1,200 new units constructed since 2014 and around 2,000 more expected in the next few years.

### Critical Facilities

Critical Facilities throughout the Capitol Region are listed in Appendix B. In Simsbury these include the Simsbury Highschool (primary emergency shelter), the Tariffville Elementary School (secondary shelter and the only shelter available to Tariffville if Route 315 is closed and Tariffville is isolated), the Squadron Line School (secondary shelter), the Public Works Campus and the Public Library, in addition to the town's emergency response facilities. The Water Pollution Control Facility (WPCF) is located within a FEMA Special Flood Hazard Area (SFHA) and therefore at risk from a 1-percent annual-chance flood event; it is protected from such events by a flood-control dike.

**Table 26-1: Critical Facilities, Simsbury**

Facility	Shelter	Generator
Simsbury High School	Primary	Two
Tariffville Elementary School	Secondary	X
Squadron Line School	Secondary	X
Public Works Campus		
Library		Hook-up Available
Water Pollution Control Facility	No	X

### Capabilities

Hazard mitigation is incorporated into Simsbury's Plan of Conservation and Development (POCD). The HMP document itself is cited. POCD actions specifically address natural hazards.

Simsbury has been pro-active in preserving open space in the floodplain and assuring that new developments are not placed in floodplains or wetlands. **None of the new residential units noted previously were, or will be, constructed in the floodplain.** The Town carefully reviews renovation/reconstruction plans for homes in repetitive loss areas to **ensure** that flood proofing is accomplished and that **utilities** are located above the **1-percent annual-chance** flood level.

Zoning regulations require that new construction and substantial improvement be built with two feet of freeboard above the FEMA-defined 1-percent annual-chance flood elevation. This is a higher standard than that required by FEMA. The Town adopted updated floodplain regulations as part of a Zoning Regulations update that was made effective on April 30, 2018.

The Town regularly performs culvert and bridge replacement and upgrade work.

The Town utilizes the Everbridge notification system to warn owners of homes with repetitive losses of impending storm events. The Social Services Department maintains a listing of special needs populations so that notification and contact can be made in hazard events.

The Town coordinates with the power supplier Eversource to address dangerous trees. Though loss of power is a significant concern, electrical transmission to the town center itself comes from two different directions, creating a redundancy that lowers the risk of complete power loss. Many Town facilities have emergency generators or standby power, including Simsbury Highschool, Tariffville Elementary School, Squadron Line School, Virginia Connelly senior housing facility, and some mobile phone towers.

Simsbury maintains and adds dry hydrants and cisterns as funding allows, but does not feel its water supply is currently sufficient (see below). The Fire Department has the appropriate equipment to fight wildfires at this time.

### New Capabilities

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Since adoption of the 2014-2019 Capitol Region Natural Hazards Mitigation Plan Update ("2014 HMP"), Tariffville Elementary School and the Squadron Line School have been officially designated as emergency shelters, increasing the town's capacity to house displaced residents and providing a local sheltering option in case of isolation of the Tariffville area.

The Virginia Connelly senior housing facility recently acquired a new generator. The public library is currently being fitted to be able to have a portable generator hooked up and provide power; it does not have a dedicated generator at this point. Coordination with Eversource has improved. Despite these improvements, the Town believes that following a temporary improvement following the storms of 2011, power disruption response capabilities have decreased recently.

Since 2014, multiple culverts have been upgraded, including structures located on:

- Great Pond Road, in vicinity of 142 Great Pond Road
- Westledge Road (multiple structures)
- Firetown Road at Bissell Brook

A culvert on Riverside Road, west of the intersection of Riverside Road and East Weatogue Street, was upgraded and a backflow-prevention gate installed to provide flood protection. A culvert to the east, however, has not been upgraded.



Dry hydrants and cisterns have been added in the last few years.

The Town acquired 1 Old Bridge Road, a repetitive loss property, in 2014.

## Challenges

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### Challenges Overview

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Flooding is a significant challenge for Simsbury. In the Riverside Road area, buildings are directly at risk of flooding, but the more significant concern are electric utility connection points, meters, and circuit breakers. During floods, the Town is forced to cut power before water contacts those points, leaving property owners unable to operate sump pumps to remove rain, stormwater, or groundwater that enters their basements. These homes then experience basement damage even if floodwaters don't rise high enough to impact the structures directly.

There are many important roads that have been overtopped by flood waters, hindering travel by emergency vehicles and access to the emergency shelter. During Hurricane Irene and Superstorm Sandy certain critical access roads were blocked: route 185 was closed at East Weatogue Street, severing a major east/west transportation artery; route 315 was closed, isolating the Tariffville Village area and preventing those residents access to the Town emergency shelter; Town Forest Road flooding blocked access/egress to the Town Public Works Campus; and Riverside Road flooding blocked emergency vehicle access to the neighborhood from the Town Center, as well as access to the Emergency Shelter for neighborhood residents. Municipal officials reported that another flash flood event overwhelmed existing drainage within the State right-of-way on Route 189 and closed the intersection of Route 189 and Elm Street; this limited access to Tariffville from Bloomfield.

Municipal staff report wildfire as a concern in town. Recent droughts and insect damage to trees have increased the risk, and the distribution of dry hydrants, cisterns, and fire roads is not considered to be sufficient. McLean Game Refuge and the ridgeline are particular areas of concern. The Fire Department reports the typical wildfire to be less than one acre in size, with large fires reaching six to seven acres.

Snow storms have been found to be the most costly events, with widespread community impacts.

### Hazard Losses

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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

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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 Town has several areas of repetitive **losses** involving at least **11** properties and resulting in claims of **\$389,198**. Overall, the National Flood Insurance Program (NFIP) has paid 100 claims in Simsbury totaling **\$532,670** to-date.

Total PA reimbursements to the community were as follows:

- Flood Events: \$41,107 (\$2,164 annually)
- Hurricane Events: \$135,837 (\$7,149 annually)
- Winter Storm Events: \$4,275,857 (\$225,045 annually)

These are summarized in the tables below.

**Table 26-2: Flood Event PA Reimbursements, Simsbury**

Incident	Sep 1999	Oct 2005
Declaration	9/23/1999	12/16/2005
Disaster No.	1302	1619
Entity	<b>FEMA PA Reimbursement</b>	
State	\$1,090	\$1,352
Municipal	\$0	\$38,664
Nonprofit	\$0	\$0
Total	<b>\$1,090</b>	<b>\$40,016</b>
Annualized	<b>\$57</b>	<b>\$2,106</b>

**Table 26-3: Hurricane Wind Event PA Reimbursements, Simsbury**

Incident	Aug - Sep 2011 (T.S. Irene)	Oct - Nov 2012 (Storm Sandy)
Declaration	9/2/2011	10/30/2012
Disaster #	4023	4087
Entity	<b>FEMA PA Reimbursement</b>	
State	\$1,034	\$0
Municipal	\$133,949	\$0
Nonprofit	\$0	\$854
Total	<b>\$134,983</b>	<b>\$854</b>
Annualized	<b>\$7,104</b>	<b>\$45</b>



**Table 26-4: Winter Storm PA Reimbursements, Simsbury**

Incident	Mar 2003	Dec 2003	Jan 2005	Feb 2006	Jan 2011	Oct 2011	Feb 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	<b>FEMA PA Reimbursement</b>						
State	\$20,385	\$18,275	\$24,110	\$29,264	\$25,497	\$10,515	\$49,550
Municipal	\$43,894	\$66,623	\$54,525	\$43,867	\$75,635	\$3,665,491	\$133,414
Nonprofit	\$0	\$0	\$0	\$0	\$1,210	\$8,385	\$5,218
Total	<b>\$64,279</b>	<b>\$84,898</b>	<b>\$78,634</b>	<b>\$73,131</b>	<b>\$102,342</b>	<b>\$3,684,391</b>	<b>\$188,182</b>
Annualized	<b>\$3,383</b>	<b>\$4,468</b>	<b>\$4,139</b>	<b>\$3,849</b>	<b>\$5,386</b>	<b>\$193,915</b>	<b>\$9,904</b>

### *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 26-5: NCEI Database Losses since 2012, Simsbury**

Date	Event	Property Damage
8/5/2012	Thunderstorm Wind	\$5,000
9/13/2015	Thunderstorm Wind	\$3,000
6/30/2017	Thunderstorm Wind	\$15,000
<b>Total</b>		<b>\$23,000</b>

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 26-6: Estimated Damages to Simsbury from a 1% Annual-Chance Flood**

Loss Type	2014 Results	2018 Results
Households Displaced	347	281
People Needing Shelter	604	314
Buildings at Least Moderately Damaged	135	0
<b>Economic Losses</b>		
Residential Building & Content Losses	\$50,940,000	\$26,558,296
Other Building & Content Losses	\$50,880,000	\$21,071,488
<b>Total Building &amp; Content Loss</b>	<b>\$101,820,000</b>	<b>\$47,629,783</b>
<b>Total Business Interruption Losses</b>	<b>\$330,000</b>	<b>\$749,528</b>
<b>TOTAL</b>	<b>\$102,150,000</b>	<b>\$48,379,311</b>

**Table 26-7: Estimated Damages to Simsbury from a 1% Annual-Chance Hurricane**

Loss Type	2014 Results (1938 event)	2018 Results (1% track)
Buildings at Least Moderately Damaged	512	1
Buildings Completely Damaged	21	0
Total Debris Generated	44,301 tons	3679
Truckloads (at 25 tons/truck) of building debris	259	147
<b>Economic Losses</b>		
Residential Building & Content Losses	\$74,170,000	\$9,074,003
Other Building & Content Losses	\$7,550,000	\$127,735
<b>Total Building &amp; Content Loss</b>	<b>\$81,720,000</b>	<b>\$9,201,738</b>
<b>Total Business Interruption Losses</b>	<b>\$7,070,000</b>	<b>\$16,537</b>
<b>TOTAL LOSSES</b>	<b>\$88,800,000</b>	<b>\$9,218,275</b>

**Table 26-8: Estimated Damages to Simsbury from a Probabilistic Earthquake**

Loss Type	2018 Results
Wage Loss	\$3,072
Rent Loss	\$2,559
Relocation Loss	\$4,966
Income Loss	\$2,789
Inventory Loss	\$134
<b>Total Business Disruption</b>	<b>\$13,520</b>
Structural Loss	\$9,665
Non-Structural Loss	\$32,282
<b>Total Building Loss</b>	<b>\$41,948</b>
<b>Total Content Loss</b>	<b>\$12,161</b>
<b>TOTAL LOSSES</b>	<b>\$67,629</b>



**Table 26-9: Estimated Damages to Simsbury from Modeled Earthquake Scenarios**

Epicenter Location	Magnitude	Estimated Total Losses
East Haddam	6.4	\$153,971.70
Haddam	5.7	\$40,692.00
Portland	5.7	\$103,360.22
Stamford	5.7	\$7,815.00

#### *Other Hazard Costs*

A typical wildfire costs the Fire Department around \$1,500 (per event).

The Town reports that a typical thunderstorm costs about \$5,000 in cleanup.

The Town estimates that a typical winter storm costs about \$40,000 in cleanup and \$2,000 in emergency response by the Fire Department.

#### *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 Simsbury 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 26-10: Average Annualized Losses, Simsbury**

Dam Failure	Drought	Earthquakes	Flooding	Hurricanes and Tropical Storms	Severe Winter Storms	Thunderstorms	Tornadoes	Wildfires	Total
\$42	\$0	\$67,629	\$16,181	\$1,473,871	\$225,045	\$3,123	\$344,950	\$6,305	\$2,137,146

#### *Losses Summary*

A review of the above loss estimates demonstrates that the Town of Simsbury 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

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### Noted Hazard Mitigation Needs

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

- Mitigation of some frequent road flooding, such as that on Route 185 and Riverside Road, may be accomplished by raising road elevations above the 1-percent annual-chance flood level. Municipal staff believe that elevation of Grant Pond Road is possible within the next five years. Access improvements on Town Forest Road can be accomplished, but at a large expense. Work involves raising the road above the 1-percent annual-chance flood level and replacing two large culverts and associated drainage. The environmental and cost implications of raising Route 315, on the other hand, led to the establishment of a secondary emergency shelter site at the Tariffville Elementary School.
- The Town may partner with homeowners to apply for mitigation funds for elevations and buyouts; some homeowners are known to be interested in such assistance. Floodplain regulations may be strengthened by revising the definition of substantial damage and substantial improvement (SD/SI); currently SD/SI is rarely triggered.
- To address the issue of downed trees damaging overhead utilities, a comprehensive, a fully funded and utility-coordinated tree trimming/removal program is urgently needed. Additionally, Simsbury is interested in burying utilities to reduce disruptions.
- Simsbury would like to fund additional dry hydrants and cisterns, as well as fire road cuts through forested areas. McLean Game Refuge and the ridgeline in particular would be aided by these efforts.
- Upgrading and improving the culvert on Riverside Road, west of East Weatogue Street and east of the upgraded culvert with a backflow-prevention gate, will help address isolation issues that occur during flood events.
- Historical failures of the bank along the western shoulder of Riverside Road were addressed by the installation of gabion baskets. Over time, slump and erosion has been observed. A more long-term solution should be pursued.
- Culverts along Route 189 at the intersection of Elm Street need to be upgraded to prevent flooding and road closures during larger storm events.
- The Water Pollution Control Facility (WPCF) is located within a FEMA SFHA, and is surrounded by an earthen dike. During larger storm events, flood waters have reached within feet of the top elevation of the berm. The dike should be investigated to determine whether improvements are needed to better protect the facility.

### Status of Previous Mitigation Strategies and Actions

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The Town of Simsbury reviewed the mitigation actions proposed in the 2014 HMP and determined the status of each. That information is included in the table below.





**Table 26-11: Status of Previous Mitigation Strategies and Actions, Simsbury**

Action #	Action	Notes	Status
<b>GOAL: REDUCE THE POTENTIAL FOR LOSS OF LIFE AND PROPERTY AS A RESULT OF FLOODING</b>			
<b>Objective 1: Incorporate natural hazard mitigation strategies into new/existing projects.</b>			
1.1	Continue to implement regulations prohibiting net flow increase from new development.	Zoning regulations were being updated at the time of updated HMP development. Municipal Staff will work with State NFIP coordinator to ensure consistency with federal guidelines. This is a capability	Capability
1.2	Implement recommended regulations that result from study of impervious coverage in various areas of town.	Town intends to codify stormwater design guidelines into regulations, and is currently working on incorporating guidelines and recommendations into zoning, subdivision, and highway regulations.	Carry Forward with Revisions
<b>Objective 2: Correct undersized drainage systems in repetitively flooded areas</b>			
2.1	Upgrade culverts associated with Bissell Brook on Fire Town Road.	Upgrades have been completed, however a more substantial replacement of both culverts with bridges is planned as part of the Town's Bridge Improvement Program.	Completed
2.2	Upgrade culverts associated with Stratton Brook on Town Forest and Stratton Brook Roads.	The Town did not have resources for this. It remains on the CIP because the associated roads are used to access the highway garage.	Carry Forward
<b>Objective 3: Ensure the protection of private properties at greatest risk.</b>			
3.1	Explore participation in the Community Rating System.	The Town remains interested in CRS.	Carry Forward with Revisions
3.2	Pursue acquisition of parcels with potential for development along or within 100-year floodplain to preserve as open space.	The Town does not allow new development in flood zones and therefore does not need to pursue acquisition of parcels within those zones at risk of flooding. The Town remains concerned with development near flood zones that could worsen flooding for other properties. This action is removed and replaced with an updated action.	Drop
<b>GOAL: REDUCE THE POTENTIAL FOR LOSS OF LIFE AND PROPERTY AS A RESULT OF WINTER STORMS</b>			
<b>Objective 1: Continue to trim/remove hazard trees.</b>			
1.1	Maintain relationship with CL&P - currently CL&P serves on local public safety committee.	CL&P has been acquired by Eversource. Town reports a good relationship. This is a capability.	Capability
1.2	Continue local tree maintenance work.	This is part of the Town's standard operations. This is a capability.	Capability
1.3	Maintain informal agreements with local contractors for emergency debris removal work	The Town now has formal contractual agreements in place.	Completed
<b>Objective 2: Provide planning and equipment for traffic rerouting</b>			
2.1	Purchase mechanical signs.	This action has been completed	Completed
2.2	Maintain mutual aid agreements with neighboring communities.	Mutual aid agreements are maintained. This is a capability.	Capability



Action #	Action	Notes	Status
<b>Objective 3: Minimize risks vulnerable to populations as a result of power failure.</b>			
3.1	Maintain special needs population list.	This is an established practice. This is a capability.	Capability
3.2	Work with convalescent and day care centers to plan for evacuations.	This is an established practice. This is a capability.	Capability
3.3	Work with CREPC to obtain funding to purchase generators for shelters.	Several acquired in the last few years	Completed
3.4	Equip a secondary shelter at Tariffville School.	This is a secondary shelter overall, but the primary shelter for Tariffville if the village is cut off by flooding.	Completed
<b>GOAL: REDUCE THE POTENTIAL FOR LOSS OF LIFE AND PROPERTY AS A RESULT OF WIND</b>			
<b>Objective 1: Continue to trim/remove hazard trees.</b>			
1.1	Maintain relationship with CL&P - currently CL&P serves on local public safety committee.	This is a repeated action	Drop
1.2	Continue local tree maintenance work.	This is a repeated action	Drop
1.3	Maintain informal agreements with local contractors for emergency debris removal work	This is a repeated action	Drop
<b>Objective 2: Provide planning and equipment for traffic rerouting.</b>			
2.1	Purchase mechanical signs.	This is a repeated action	Drop
2.2	Maintain mutual aid agreements with neighboring communities.	This is a repeated action	Drop
<b>Objective 3: Coordinate back-up communications.</b>			
3.1	Continue to implement upgrades to fire, police and town-wide communications systems.	The Fire Department is upgrading this equipment now. Additional actions may be taken depending on whether the State opts into FirstNet.	Capability
<b>GOAL: IMPROVE ACCESS DURING FLOOD EVENTS</b>			
<b>Objective 1: Raise road elevations to assure access</b>			
1.1	Raise Riverside Road near Drake Hill Bridge	Significant progress was made. A modeling study was completed but the need for a Conditional Letter of Map Revision (CLOMR) precludes additional action at this time.	Carry Forward with Revisions
1.2	Raise Route 185 near East Weatogue Street	Progress was not made. The Town focused on Riverside Road instead.	Carry Forward
<b>Objective 2: Co-ordinate efforts with Connecticut DOT</b>			
2.1	Coordinate with Connecticut DOT for Route 185 work.	This is inherent in action 1.2, as Route 185 is under State jurisdiction.	Drop

### 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**

**For the area of Riverside Road near Drake Hill Bridge, monitor for opportunities to justify the CLOMR/LOMR process and environmental permitting, as part of efforts to raise the road.**

<b>Goal</b>	9. Minimize the economic impact of hazard damages
<b>Category</b>	Prevention
<b>Lead</b>	Public Works, Engineering
<b>Cost</b>	\$0 - \$10,000
<b>Funding</b>	Town Operating Budget / Grants / Bonding
<b>Timeframe</b>	01/2019 - 12/2019
<b>Priority</b>	High

**Action #2**

**Update flood damage prevention regulations to address Increased Cost of Compliance, allowing residents to access those funds.**

<b>Goal</b>	2. Ensure Municipal Codes and Regulations support hazard mitigation
<b>Category</b>	Prevention
<b>Lead</b>	Planning
<b>Cost</b>	\$0 - \$10,000
<b>Funding</b>	Town Operating Budget
<b>Timeframe</b>	01/2019 - 12/2019
<b>Priority</b>	High

**Action #3**

**Enter the Sustainable CT program through Registration and review actions that can be undertaken to pursue Certification. Make progress with the actions related to hazard mitigation.**

<b>Goal</b>	4. Increase the use of natural, "green," or "soft" hazard mitigation measures, such as open space preservation and green infrastructure.
<b>Category</b>	Natural Resources Protection
<b>Lead</b>	Planning
<b>Cost</b>	\$0 - \$10,000
<b>Funding</b>	Town Operating Budget
<b>Timeframe</b>	01/2019 - 12/2019
<b>Priority</b>	High



**Action #4**

**Codify storm water design guidelines derived from the study of impervious cover into zoning, subdivision, and highway regulations.**

<b>Goal</b>	2. Ensure Municipal Codes and Regulations support hazard mitigation
<b>Category</b>	Prevention
<b>Lead</b>	Planning
<b>Cost</b>	\$10,000 - \$25,000
<b>Funding</b>	Town Operating Budget / Grants
<b>Timeframe</b>	07/2019 - 06/2021
<b>Priority</b>	High

**Action #5**

**For the area of Riverside Road near Drake Hill Bridge, address the riverbank, as the road is at risk of slumping due to erosion.**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Structural Projects
<b>Lead</b>	Public Works, Engineering, Planning
<b>Cost</b>	\$50,000 - \$100,000
<b>Funding</b>	Grants / Bonding
<b>Timeframe</b>	07/2021 - 06/2022
<b>Priority</b>	High

**Action #6**

**Upgrade Culverts on Riverside Road, West of the Riverside Road and East Weatogue Street Intersection**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Structural Projects
<b>Lead</b>	Public Works, Engineering
<b>Cost</b>	\$50,000 - \$100,000
<b>Funding</b>	Grants / Capital Improvement Funds / Bonding
<b>Timeframe</b>	07/2021 - 06/2022
<b>Priority</b>	High



**Action #7****Coordinate with CTDOT to Upgrade Culverts along Route 189 at the Intersection of Elm Street**

<b>Goal</b>	5. Improve the resilience of local and regional utilities and infrastructure using strategies including adaptation, hardening, and creating redundancies.
<b>Category</b>	Structural Projects
<b>Lead</b>	Public Works, Engineering
<b>Cost</b>	\$50,000 - \$100,000
<b>Funding</b>	Grants / Bonding
<b>Timeframe</b>	07/2021 - 06/2022
<b>Priority</b>	High

**Action #8****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.**

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

**Action #9****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.**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Prevention
<b>Lead</b>	Public Works
<b>Cost</b>	\$0 - \$10,000
<b>Funding</b>	Town Operating Budget
<b>Timeframe</b>	01/2020 - 12/2020
<b>Priority</b>	Medium



**Action #10****Complete an analysis of costs and benefits of joining the FEMA Community Rating System.**

<b>Goal</b>	9. Minimize the economic impact of hazard damages
<b>Category</b>	Prevention
<b>Lead</b>	Planning, Administration
<b>Cost</b>	\$0 - \$10,000
<b>Funding</b>	Town Operating Budget
<b>Timeframe</b>	01/2020 - 12/2020
<b>Priority</b>	Medium

**Action #11****Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.**

<b>Goal</b>	3. Improve institutional awareness and understanding of natural hazard impacts and mitigation within municipal governments and other decision-making bodies
<b>Category</b>	Education & Awareness
<b>Lead</b>	Planning
<b>Cost</b>	\$0 - \$10,000
<b>Funding</b>	Town Operating Budget
<b>Timeframe</b>	07/2019 - 06/2024
<b>Priority</b>	Medium

**Action #12****Initiate design and grant application work for elevation of Route 315.**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Structural Projects
<b>Lead</b>	Public Works, Engineering
<b>Cost</b>	\$10,000 - \$25,000
<b>Funding</b>	Town Operating Budget
<b>Timeframe</b>	07/2020 - 06/2022
<b>Priority</b>	Medium



**Action #13**

**Complete a study exploring the feasibility and effectiveness of raising both Route 185 and East Weatogue Street in the area where they intersect.**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Structural Projects
<b>Lead</b>	Public Works
<b>Cost</b>	\$10,000 - \$25,000
<b>Funding</b>	Town Operating Budget / Grants
<b>Timeframe</b>	07/2020 - 06/2022
<b>Priority</b>	Medium

**Action #14**

**Conduct a wildfire vulnerability and needs assessment to guide construction of fire roads through larger open space parcels and of additional dry hydrants and/or cisterns.**

<b>Goal</b>	3. Improve institutional awareness and understanding of natural hazard impacts and mitigation within municipal governments and other decision-making bodies
<b>Category</b>	Prevention
<b>Lead</b>	Emergency Management
<b>Cost</b>	\$25,000 - \$50,000
<b>Funding</b>	Town Operating Budget / Grants / CT DEEP
<b>Timeframe</b>	07/2021 - 06/2023
<b>Priority</b>	Medium

**Action #15**

**Upgrade culverts associated with Stratton Brook on Town Forest and Stratton Brook Roads**

<b>Goal</b>	5. Improve the resilience of local and regional utilities and infrastructure using strategies including adaptation, hardening, and creating redundancies.
<b>Category</b>	Structural Projects
<b>Lead</b>	Public Works
<b>Cost</b>	\$25,000 - \$50,000
<b>Funding</b>	Town Operating Budget / Grants
<b>Timeframe</b>	07/2021 - 06/2023
<b>Priority</b>	Medium



**Action #16**

**Evaluate the Dike around the Water Pollution Control Facility to determine whether improvements are necessary.**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Structural Projects
<b>Lead</b>	Public Works, Engineering, WPCA, Planning
<b>Cost</b>	\$25,000 - \$50,000
<b>Funding</b>	Capital Non-Recurring Funds
<b>Timeframe</b>	07/2021 - 06/2023
<b>Priority</b>	Medium

**Action #17**

**Construct additional dry hydrants and/or cisterns in wildfire-prone areas not served by public water.**

<b>Goal</b>	7. Improve the emergency response capabilities of the region and its communities
<b>Category</b>	Preparedness & Emergency Response
<b>Lead</b>	Emergency Management
<b>Cost</b>	\$50,000 - \$100,000
<b>Funding</b>	Grants / CT DEEP
<b>Timeframe</b>	07/2023 - 06/2024
<b>Priority</b>	Medium

**Action #18**

**Complete replacement with bridges of culverts associated with Bissell Brook on Firetown Road.**

<b>Goal</b>	5. Improve the resilience of local and regional utilities and infrastructure using strategies including adaptation, hardening, and creating redundancies.
<b>Category</b>	Structural Projects
<b>Lead</b>	Public Works, Engineering
<b>Cost</b>	\$50,000 - \$100,000
<b>Funding</b>	Grants / Bonding / Capital Improvement Funds
<b>Timeframe</b>	07/2023 - 06/2024
<b>Priority</b>	Medium





**Action #19**

**Acquire parcels with development potential that could worsen flood risk if developed, and preserve as open space.**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Property Protection
<b>Lead</b>	Planning, Administration
<b>Cost</b>	More than \$100,000
<b>Funding</b>	Grants / CT DEEP
<b>Timeframe</b>	07/2022 - 06/2024
<b>Priority</b>	Medium

**Action #20**

**Work with homeowners and Eversource to floodproof or elevate power grid features (connection points, meters, and circuit breakers) in the Riverside Road area so that power can remain on during flood events.**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Property Protection
<b>Lead</b>	Public Works
<b>Cost</b>	More than \$100,000
<b>Funding</b>	Town Operating Budget / Grants
<b>Timeframe</b>	07/2022 - 06/2024
<b>Priority</b>	Medium

**Action #21**

**Approve a new Drought Ordinance.**

<b>Goal</b>	2. Ensure Municipal Codes and Regulations support hazard mitigation
<b>Category</b>	Prevention
<b>Lead</b>	Planning
<b>Cost</b>	\$0 - \$10,000
<b>Funding</b>	Town Operating Budget
<b>Timeframe</b>	01/2021 - 12/2022
<b>Priority</b>	Low



**Action #22**

**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.**

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

**Action #23**

**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.**

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Education & Awareness
<b>Lead</b>	Planning
<b>Cost</b>	\$0 - \$10,000
<b>Funding</b>	Town Operating Budget / DEMHS
<b>Timeframe</b>	01/2021 - 12/2022
<b>Priority</b>	Low

**Action #24**

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

<b>Goal</b>	1. Minimize the impact of natural hazards on physical buildings and infrastructure
<b>Category</b>	Property Protection
<b>Lead</b>	Planning
<b>Cost</b>	\$10,000 - \$25,000
<b>Funding</b>	Town Operating Budget / CT DEEP / DEMHS
<b>Timeframe</b>	07/2021 - 06/2023
<b>Priority</b>	Low



**Action #25****Assess tree maintenance practices to identify opportunities for improvement.**

<b>Goal</b>	4. Increase the use of natural, "green," or "soft" hazard mitigation measures, such as open space preservation and green infrastructure.
<b>Category</b>	Natural Resources Protection
<b>Lead</b>	Public Works
<b>Cost</b>	\$10,000 - \$25,000
<b>Funding</b>	Town Operating Budget
<b>Timeframe</b>	07/2021 - 06/2023
<b>Priority</b>	Low

**Action #26**

**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.**

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

**Action #27****Evaluate the costs and benefits of constructing a fuel cell at the Simsbury High School**

<b>Goal</b>	7. Improve the emergency response capabilities of the region and its communities
<b>Category</b>	Preparedness & Emergency Response
<b>Lead</b>	Public Works, Emergency Management, Engineering, Board of Education
<b>Cost</b>	\$25,000 - \$50,000
<b>Funding</b>	Grants / Bonding
<b>Timeframe</b>	07/2023 - 06/2024
<b>Priority</b>	Low












# Capitol Region Natural Hazards Mitigation Plan Update




## Simsbury, Connecticut

Flood Plains, Dams  
& Critical Facilities


### Critical Facilities

-  Fire Station
-  Police Station
-  School
-  Healthcare Facility
-  State Facility
-  Town Facility
-  Waste Water Facility
-  Emergency Center
-  NRHP Buildings/Sites

### Dam Hazard Class

-  BB, A, AA OR Unclassified
-  Class B - Significant Hazard
-  Class C - High Hazard

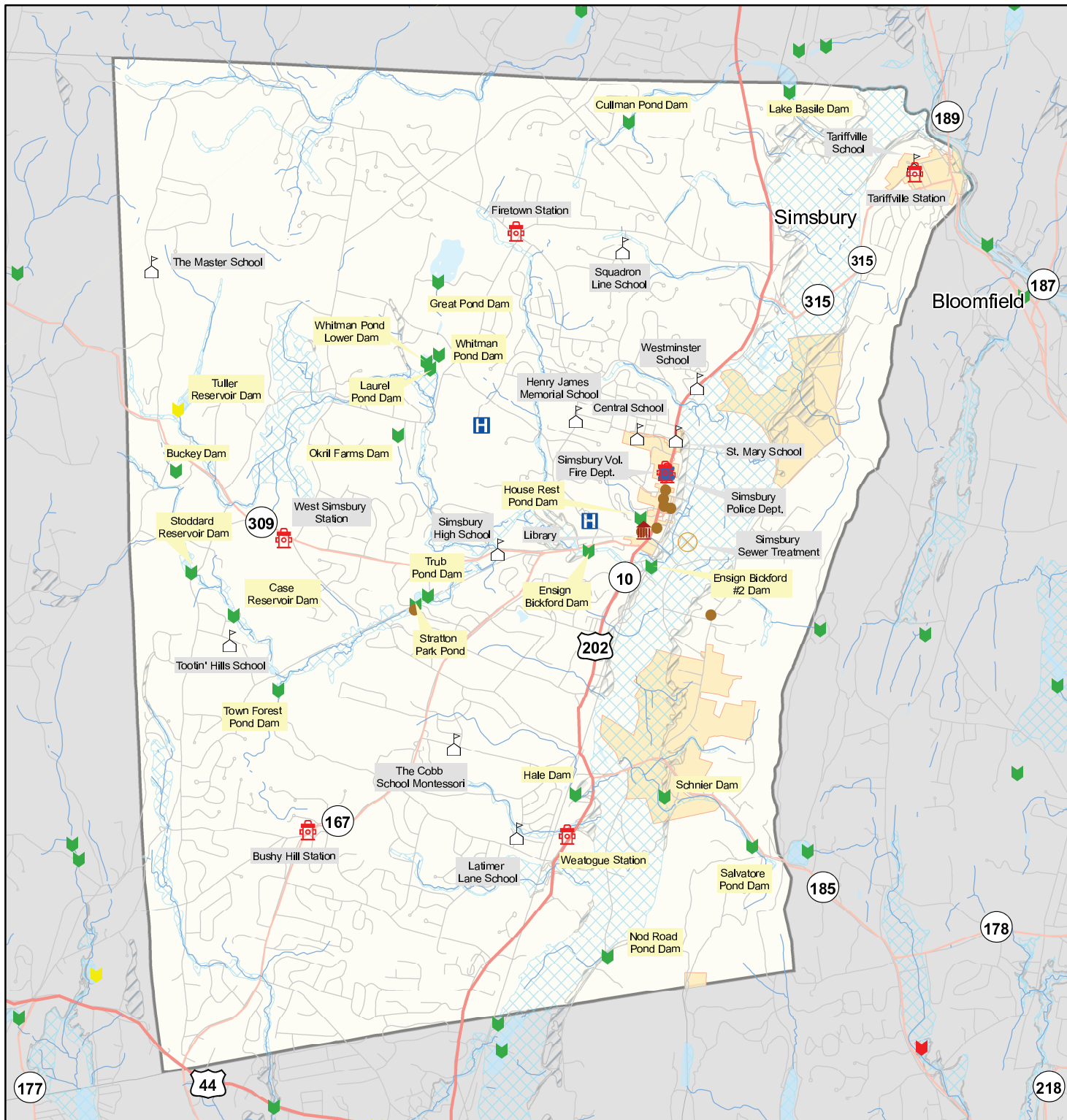
### FEMA Flood Hazard Area

-  100 Year Flood Zone
-  500 Year Flood Zone
-  NRHP Districts/Areas

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



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








# Capitol Region Natural Hazards Mitigation Plan Update






## Simsbury, Connecticut

### Dam Breach Inundation Area & Critical Facilities

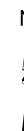
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