



32 Tollard

Community Overview

Tollard is a rural community with a land area of 39.7 square miles and an estimated population of 14,563 according to the 2020 Census. Elevation ranges from about 500 to over 1,000 feet above sea level. Its land area contributes primarily to the Willimantic River Watershed to the east, but also to the Hockanum River Watershed to the west. The Willimantic River forms the eastern boundary of Tollard, and numerous smaller watercourses flow through town, including Browns, Chapin Meadow, Charter, Clark, Clough, Green, Grover, Labonte, Polk, Spice, Sucker, and West Brooks, as well as the Skungamaug River. Main transportation routes include Interstate 84 and routes 30, 74 and 195. Principal industry in Tollard includes manufacturing and professional services.

Tollard is currently witnessing two significant developments. Firstly, a 240-unit multi-family project located behind the Big Y grocery store off Rt 195 is underway, positioned uphill and outside of flood-prone areas near the Tollard Marsh. Secondly, there's an 83-unit development on Rt 195. It's important to note that if these projects also involve multi-family units without proper fire partitions, the town might face challenges in meeting the necessary annual inspection demands due to limited staff capacity. Beyond these developments, there are no other major subdivisions currently planned in the town. New development has generally not been in the floodplains or other notable hazard areas.

Critical Facilities

Critical Facilities in Tollard include the Town Hall (in which the Resident State Trooper Office is located), Senior Center (a shelter), Tollard High School (shelter), Birch Grove (shelter), the Tollard Fire Training Center (EOC), State Police Barracks, the Tollard County Mutual Aid Fire Service Inc. (a regional emergency dispatch center), the Woodlake at Tollard Nursing and Rehabilitation Center, Old Post Village and Winding River elderly housing complexes, one age-restricted development, group homes, and multiple communication towers.

Table 32-1: Critical Facilities, Tollard

Facility	Shelter	Cooling Center	Generator
Tollard Town Hall (Resident State Trooper Office)		X	
Tollard Senior Center	X	X	X
Tollard High School	Primary		X
Birch Grove Primary School	Primary		Partial
Tollard Fire Training Center (EOC)			X
State Police Barracks			X
Tollard County Mutual Aid Fire Service Inc.			X
Woodlake at Tollard Nursing & Rehabilitation Center			X
Old Post Village Elderly Housing			Partial
Winding River Elderly Housing			X
Group Homes			
Communication Towers			X
Library		X	X
1 Eversource Area Work Center			

During extreme heat events, Tolland Town Hall, Tolland Town Senior Center and Tolland Library can all be opened as public cooling centers. Tolland Town Hall and Senior Center have generators and the senior center is used as a shelter in town. It is unknown if the library have generator.

The capital improvement plan includes replacing the 60-year-old generator at the highway garage, which is the central fueling station for the town emergency and public vehicles. The town reports that the Highway Generator is slated for 2024-2025.

Capabilities

Hazard mitigation is incorporated into Tolland's Plan of Conservation and Development (POCD). POCD actions specifically address natural hazards, specifically flooding and drought.

The Town has not permitted any new construction in hazard prone areas since 2008.

The DPW maintains a list of bridges and culverts that needs attention. It prioritizes efforts based on the list.

Tolland has a limited dry-hydrant program to make sure firefighting water is available throughout Town. Public water with hydrants covers a small portion of Tolland.

Tree maintenance in Tolland is addressed in large part by Eversource. Tolland has a modest annual budget for tree trimming on a case-by-case basis. The Town maintains a contract with a tree company for tree removal, as needed and the contractor is available for after-hours work.

Tolland has added fiber-optic cables and back up capabilities for electronic assets, improving its communication capabilities.

The Town has expanded its GIS capabilities. It now has agricultural mapping data that help provide information useful for drought planning.

Tolland has adopted Low Impact Development (LID) regulations, though enforcing maintenance can be a challenge.

A map modernization effort by FEMA is currently underway for Tolland County, but its full extent, and how much of Tolland it will cover, is unknown.

CT DOT and DEEP have replaced the Route 74 bridge at South River Road.

Since the 2019 HMP, the following actions have been incorporated as capabilities:

- Educate commissioners, developers and the community on Low Impact Development requirements on an ongoing basis.
- 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.
- Develop a list of private contractors that can be utilized for emergency tree service work.
- Develop a system for servicing/dredging fire ponds and dry hydrants periodically.

- Update list of special needs populations to include 37 new units and any other new additions to the population.
- Develop a plan to increase municipal sheltering capacity to meet 7% requirement.
- Add a link to the Emergency Management page on the Town Website with information about the National Flood Insurance Program.
- Conduct annual outreach campaign to educate residents on signing up for emergency alerts, building and maintaining disaster plans and kits, and improving their disaster readiness. Include notifications on the Town website.
- Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.

The Town maintains a list of vulnerable persons that is updated annually. Additionally, the Public Safety Director coordinates with Eversource to ensure that our lists are coordinated.

Capabilities to address natural hazards and the losses that they have caused, have increased since the last plan has been adopted.

Challenges

Challenges Overview

Poor-drainage flooding caused by rapid rainfall is a primary concern for the Town. Inundation of flood zones by flooded waterways is a lesser concern due to the relatively small amount of land that falls within those flood zones.

Gages Brook and portions of the Industrial Park are in the 1-percent annual-chance flood zone.

One of Tolland's primary concerns is its susceptibility to severe weather events. Hurricane Isaias led to extensive tree and pole damage on key roadways, causing widespread power outages. Due to frequent wind-related damage, its unique topography, and elevation change from Vernon to Tolland which locals refer to Tolland as the "Tolland Triangle," which contribute to relatively higher storm damages and increased vulnerability.

During the 2022 drought, Shenipsit Lake experienced a significant drop in water levels, prompting the town to act. The town suspended all irrigation on municipal properties. Additionally, the Connecticut Water Company requested voluntary water conservation efforts from the community in response to the drought.

In 2021, Tolland faced significant challenges related to its gravel roads, spanning 8.3 miles throughout the town, which required rebuilding three to four times during the year. These roads lack a proper drainage system, causing water to run over and through them. During two or three of the storms that year, the town had to evacuate a campground due to road washouts (located on private property), which was later sold and is names Quarry Campground which has improved roadways. Localized flooding concerns have emerged off Rt 30, specifically on Kingsbury Avenue, where town staff suspect the undersized pipe under Rt 30 contributes to flooding during heavy rain events, affecting businesses in the area. A property near the intersection of Old Stafford Road and Slater Street experienced driveway flooding twice due to a stream flowing under it, with three to four corrugated pipes. When the receiving body across Stafford Road became full, it resulted in driveway flooding.

Tolland staff report a unique weather pattern where, when neighboring areas receive rain, Tolland tends to experience snow. This geographical influence on weather events is a concern for the town.

Town staff report that most of the accidents that occur on 84, occur between exits 66 – 69 in Tolland.

Vulnerable populations in Tolland are located at Parker Place, Winding River Village, and Old Post Village. These are all elderly housing, and residents could be at risk for extreme heat. All of these have air-conditioning but the facilities might be vulnerable to power outages.

Hazard Losses

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

Average Annualized Losses

Average Annualized Loss (AAL) estimates are summarized below. 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 Tolland. National Centers for Environmental Information (NCEI) data, from the last 20 years, was categorized by hazard and averaged based on the proportion of population within each town in the CROCOG Region. National Flood Insurance Program (NFIP) losses were calculated based on the 50 year span of the program. FEMA Public Assistance (PA) data from the past 11 years was categorized based on hazard and used to compute AAL. United States Department of Agriculture (USDA) from the past 10 years was calculated to get AAL. Expected Annual Loss data from the National Risk Index (NRI) was downloaded and categorized to get AAL for the below hazards. Dam failure data was taken from the 2019-2024 CROCOG Hazard Mitigation Plan (HMP) plan since no new dam failures have occurred in the past five years. The 2019 HMP Dam failures 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.

Table 32-2: Average Annualized Losses, Tolland

Hazard	Source	Average Annualized Losses (AAL)
Hurricanes/Tropical storms	NCEI	\$37,424.41
	NRI	\$872,921.45
	FEMA PA	\$28,814.52
Tornados/High Winds	NCEI	\$14,011.01
	NRI	\$141,232.69
Winter Storms	NCEI	\$11,099.23
	NRI	\$71,184.38
	FEMA PA	\$20,141.44
Flood	NCEI	\$11,343.87
	NRI	\$12,054.99
	NFIP	\$577.77
Drought	NRI	\$1,791.00
	USDA	\$0.00
Extreme Heat	NRI	\$2,408.98
Wildfire	NRI	\$1,316.99

Hazard	Source	Average Annualized Losses (AAL)
Earthquakes	NRI	\$13,106.01
Dam Failure	HMP	\$925.00

Losses Summary

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

This HMCAP includes new goal statements that are aligned with *Resilient Connecticut* and the efforts of the GC3. The five new goals developed for this HMCAP were developed with cooperation from CIRCA in the *Resilient Connecticut* planning process, and are:

- Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.
- Address risks associated with extreme heat events, especially as they interact with other hazards.
- Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.
- Reduce losses from other hazards.
- Invest in resilient corridors to ensure that people and services are accessible during floods and that development along corridors is resilient over the long term.

The previous goals of the 2019 HMP have been replaced and incorporated into these five new goals in accordance with the explanation in the Multijurisdictional document.

Noted Hazard Mitigation Needs

Over the course of Plan development, multiple hazard mitigation needs were noted.

- The Town must explore options for increasing its sheltering capacity and storage of emergency supplies for vulnerable elderly populations.
- Tolland should continue enhancing its tree-trimming program, potentially by adopting UConn’s “Stormwise” forest vegetation management program.
- Complete a town wide assessment of unpaved roads and streams crossing under paved roads and prioritize drainage improvements/culvert upsizing to reduce flooding.

Status of Previous Mitigation Strategies and Actions

The Town of Tolland reviewed the mitigation actions proposed in the 2019 HMP and determined the status of each. That information is included in the table below.

Table 32-3: Status of Previous Mitigation Strategies and Actions, Tolland

No.	Action	Notes	Status
5	Hire engineer to repair or replace center pier on Willimantic River.	Town staff said this is under way. The town has applied for state funding and has gotten a letter saying funding has been awarded. The engineering has been done, and the project is in the next phase. Carry forward with revisions to reflect the next stage of this project.	Carry forward with revisions
8	Update bridge and culvert sizing requirements to allow for passage of larger storm events: utilize the Cornell NRCC Extreme Rainfall figures found at http://precip.eas.cornell.edu/ .	As far as town staff know, Tolland has not updated its design manual. Town staff are not sure whether the town offloads some design work to consultants. Revise to replace with NOAA Atlas 14/15 figures rather than Cornell NRCC.	Carry forward with revisions
12	Analyze and make recommendations to improve Gehring Road crossing of Spice Brook.	Town staff said no progress has been made on this action but report no issues with this crossing in the last 8 years.	No longer a need / Retire
13	Analyze and make recommendations to improve natural and artificial drainage in Industrial Park and Gages Brook.	Town staff said there is a grant in process for this, and funding has reportedly been awarded. Engineering stage is underway. Two structures on Industrial Road East and one on Industrial Road West are being addressed. Revise to be "complete the improvements."	Carry forward with revisions.
14	Implement recommendations to improve Gehring Road crossing of Spice Brook.	See action 12	No longer a need / Retire
19	Develop a scope of work for making recommended improvements, developed as a separate action, to the Industrial Park and Gages Brook.	See action 13.	Combine with 13 / Carry forward with revisions.
21	Identify private bridges that may need repair, and reach out to owners to determine best means of evaluating and implementing necessary upgrades. Because this is expected to be a long term, multi-year project, for the current Plan period, the action to be taken is to develop a scope of work for the project.	Town staff are not aware of any outreach related to private bridges, such as those which would cross driveways. Town staff do not anticipate that capacity and authority would be present to enable this.	No longer a need / Retire

No.	Action	Notes	Status
16	Educate commissioners, developers and the community on Low Impact Development requirements on an ongoing basis.	Town staff said there is LID guidance in place and this is done on an ongoing basis. This is a capability.	Complete/ Capability/ Retire
7	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.	The town staff they are compliant with MS4.	Complete/ Capability/ Retire
1	Develop a list of private contractors that can be utilized for emergency tree service work.	Town staff said the town goes out to bid on an annual basis with the possibility of contract extension. Currently wrapping up first year of a contract with a local tree contractor, and will extend another year.	Complete/ Capability/ Retire
2	Develop a system for servicing/dredging fire ponds and dry hydrants periodically.	Town staff said the town does this on an ongoing basis.	Complete/ Capability/ Retire
3	Update list of special needs populations to include 37 new units and any other new additions to the population.	Town staff said the town maintains this list. Not clear what the 37 units is referring to, but it could reflect a phase of Parker Place (low-income senior housing) that was underway in 2018-2019.	Complete/ Capability/ Retire
4	Develop a plan to increase municipal sheltering capacity to meet 7% requirement.	Town staff is not sure of this but it sounds like the sheltering capacity is well-established. The intent may have been met.	Complete/ Capability/ Retire
9	Add a link to the Emergency Management page on the Town Website with information about the National Flood Insurance Program.	Town staff said there is info on the town website.	Complete/ Capability/ Retire
20	Explore creation of a new EOC with improved capabilities and technologies	Town staff said the town is still using the same EOC they've been using for years. Chief John Littlel has been looking for a larger facility – check with him to see if a larger facility is still desirable.	Check with Chief John Littell and carry forward if needed
6	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.	Town staff said there is not much development located in the FEMA floodplain areas in Tolland, and there are no businesses within or adjacent to the floodplain.	No longer a need / Retire.
11	Conduct annual outreach campaign to educate residents on signing up for emergency alerts, building and maintaining disaster plans and kits, and improving their disaster readiness. Include notifications on the Town website.	Town staff said Tolland has a CERT team and the town sends out emergency alerts.	Capability / Retire

No.	Action	Notes	Status
18	<p>Coordinate with CT SHPO to conduct historic resource surveys 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.</p>	<p>Town staff report that most of the historic structures are on the town green, which is relatively high and outside flood zones. Town staff are not aware of any historic structures in floodplains, given how little development is in the floodplains.</p> <p>Revise to the new SHPO layer action)</p>	<p>Perhaps retire entirely or Carry Forward with Revisions</p>
10	<p>Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.</p>	<p>Town staff said they attend trainings, although may not be specific to flood management.</p>	<p>Complete/ Capability / Retire</p>
15	<p>Send out email blasts with information about the National Flood Insurance Program.</p>	<p>Town staff said Tolland has very little development in flood plains, which leads to a very low flood insurance policy count, so this need is not relevant.</p>	<p>No longer a need / Retire</p>
17	<p>Seek Certification within the Sustainable CT program and make progress with the hazard mitigation goals associated with SustainableCT certified actions.</p>	<p>The town staff reported that they have considered doing this but decided that “the juice was not worth the squeeze”. May decide to seek in the future.</p>	<p>No longer a need / Retire</p>

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.

Table 32-4: Active Mitigation Strategies and Actions, Tolland

Number	Hazard Mitigation and Climate Adaptation Actions	Hazard Mitigation and Climate Adaptation Goal	Type of Action	Responsible Department	Approx. Cost Range	Potential Funding Sources	Timeframe	Priority	Hazard(s)	EJ?	PERISTS Score	STAPLEE Score	PERSISTIS x STAPLEE =
TL1	Explore creation of a new EOC with improved capabilities and technologies	Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.	Preparedness & Emergency Response	Emergency Management	>\$1M	FEMA HMA	07/2025 - 06/2026	Medium	All Hazards	No	18	2	36
TL2	Ensure that transportation and transit options are available to bring people to cooling centers.	Address risks associated with extreme heat events, especially as they interact with other hazards.	Preparedness & Emergency Response	Emergency Management	\$10,000 - \$50,000	Transit; IJJA BBFP	07/2024 - 06/2026	High	Extreme Heat	No	19	3	57
TL3	Complete the repair or replacement of center pier on the Willimantic River.	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Structural Project	Public Works	>\$1M	STEAP; Municipal CIP Budget	07/2025 - 06/2026	Medium	Riverine and Pluvial Floods	No	18	4	72
TL4	Update bridge and culvert sizing requirements to allow for passage of larger storm events: utilize the NOAA Atlas 14/15 figures found at: https://toolkit.climate.gov/d	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change	Structural Project	Public Works	>\$1M	LOTICIP; IJJA AOP, BIP; STEAP	07/2025 - 06/2027	High	Riverine and Pluvial Floods	No	19	4	76

Number	Hazard Mitigation and Climate Adaptation Actions	Hazard Mitigation and Climate Adaptation Goal	Type of Action	Responsible Department	Approx. Cost Range	Potential Funding Sources	Timeframe	Priority	Hazard(s)	EJ?	PERISTS Score	STAPLEE Score	PERSISTS x STAPLEE =
	ashboard-noaa-atlas-14-precipitation-frequency-data-server	increases frequency and severity of floods.											
TL5	Complete the natural and artificial drainage improvements in Industrial Park and Gages Brook.	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Structural Project	Public Works	>\$1M	STEAP; FEMA HMA; Municipal CIP Budget	07/2025 - 06/2027	Medium	Riverine and Pluvial Floods	No	18	4	72
TL6	Conduct a town wide assessment of stream crossings to identify vulnerabilities and develop a priority list for maintenance and upsizing.	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Structural Project	Public Works	\$10,000 - \$50,000	DCRF; Municipal CIP Budget	07/2025 - 06/2027	Medium	Riverine and Pluvial Floods	No	18	6	108
TL7	Ensure that options are available to help property owners make their water supply wells resilient to droughts, floods, and loss of capacity	More than one goal.	Water & Wastewater Utility Projects	Planning	\$0-\$10,000	DWSRF; FEMA HMA; STEAP	07/2025 - 06/2026	High	Riverine and Pluvial Floods/Drought	No	19	10	190
TL8	Expand public water systems to areas served by private wells when needed to address drought impacts and provide fire protection	Reduce losses from other hazards.	Water & Wastewater Utility Projects	Public Works	>\$1M	DWSRF; FEMA HMA; STEAP	07/2026 - 06/2028	High	Drought/Wildfire	No	19	8	152
TL9	Work with the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) to develop an appropriate	More than one goal.	More than one type	Public Works	\$0-\$10,000	CIRCA	07/2024 - 06/2027	Medium	Riverine and Pluvial Floods/Ex	No	18	5	90

Number	Hazard Mitigation and Climate Adaptation Actions	Hazard Mitigation and Climate Adaptation Goal	Type of Action	Responsible Department	Approx. Cost Range	Potential Funding Sources	Timeframe	Priority	Hazard(s)	EI?	PERISTS Score	STAPLEE Score	PERSISTS x STAPLEE =
	scope of work to address flooding and extreme heat concerns in Resilient Opportunity Areas (ROARs).								treme Heat				
TL10	Develop and implement a comprehensive tree management plan and coordinate with Eversource and local contractors to ensure removal of dead/dying trees	Reduce losses from other hazards..	Prevention	Planning	\$10,000 - \$50,000	Municipal Operating Budget	07/2025 - 06/2026	Medium	Hurricanes and Tropical Storms/Tornadoes and High Winds/Severe Winter Storms	No	18	5	90
TL11	Conduct a study to characterize the risks caused by the unique geographically weather challenges.	Reduce losses from other hazards.	Prevention	Planning	\$0-\$10,000	FEMA HMA	07/2025 - 06/2027	High	All Hazards	No	19	7	133
TL12	Review the Connecticut Cultural Resource Information System (ConnCRIS) to identify and understand historic and archaeological resources in areas of hazard risks found here: https://conncris.ct.gov .	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Property Protection	Planning	\$0-\$10,000	SHPO; Municipal Operating Budget	01/2026 - 12/2026	Medium	Wildfires/Tornadoes and High Winds/Riverine and Pluvial Floods	No	18	9	162
TL13	Update town website to include hazard mitigation and emergency preparedness tips for town residents, including sections corresponding to each hazard considered in this Plan Update.	More than one goal.	Education and Awareness	Planning	\$0-\$10,000	Municipal Operating Budget	01/2025 - 12/2025	Medium	All Hazards	No	17	7	119

Figure 32-1: CIRCA Environmental Justice Rank and Critical Facilities, Tolland

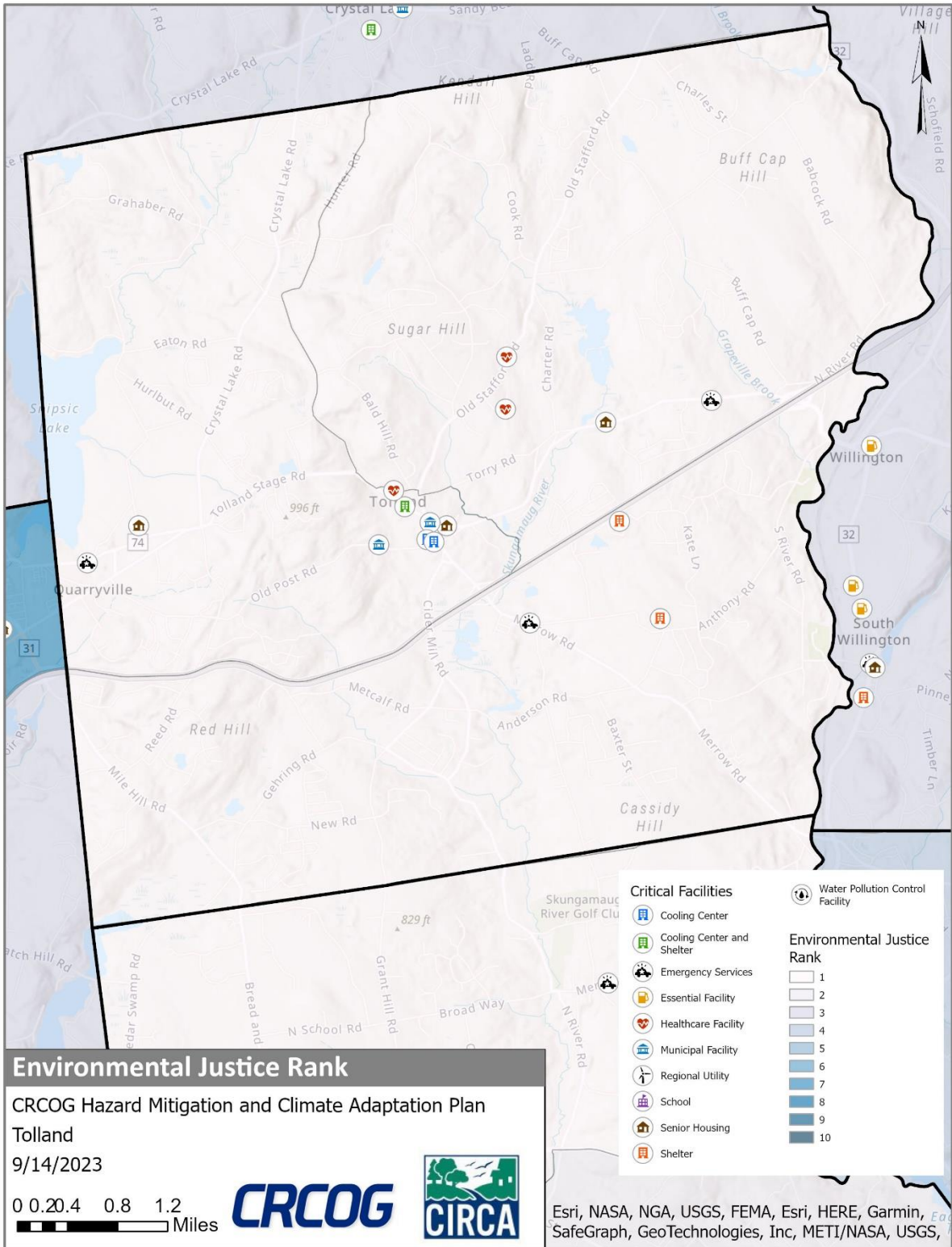


Figure 32-2: FEMA Flood Zones and Critical Facilities, Tolland

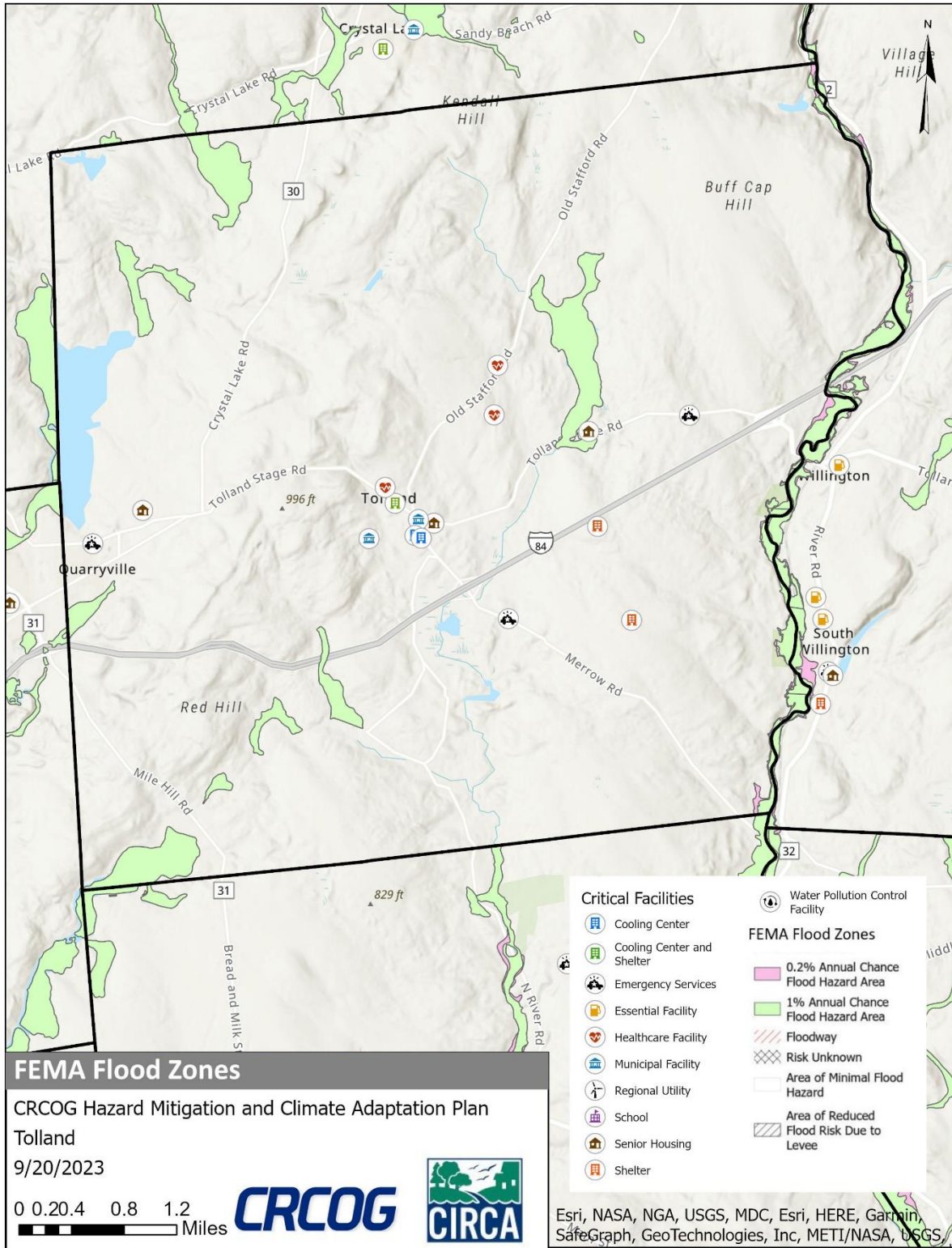


Figure 32-3: CIRCA Flood CCVI and Critical Facilities, Tolland

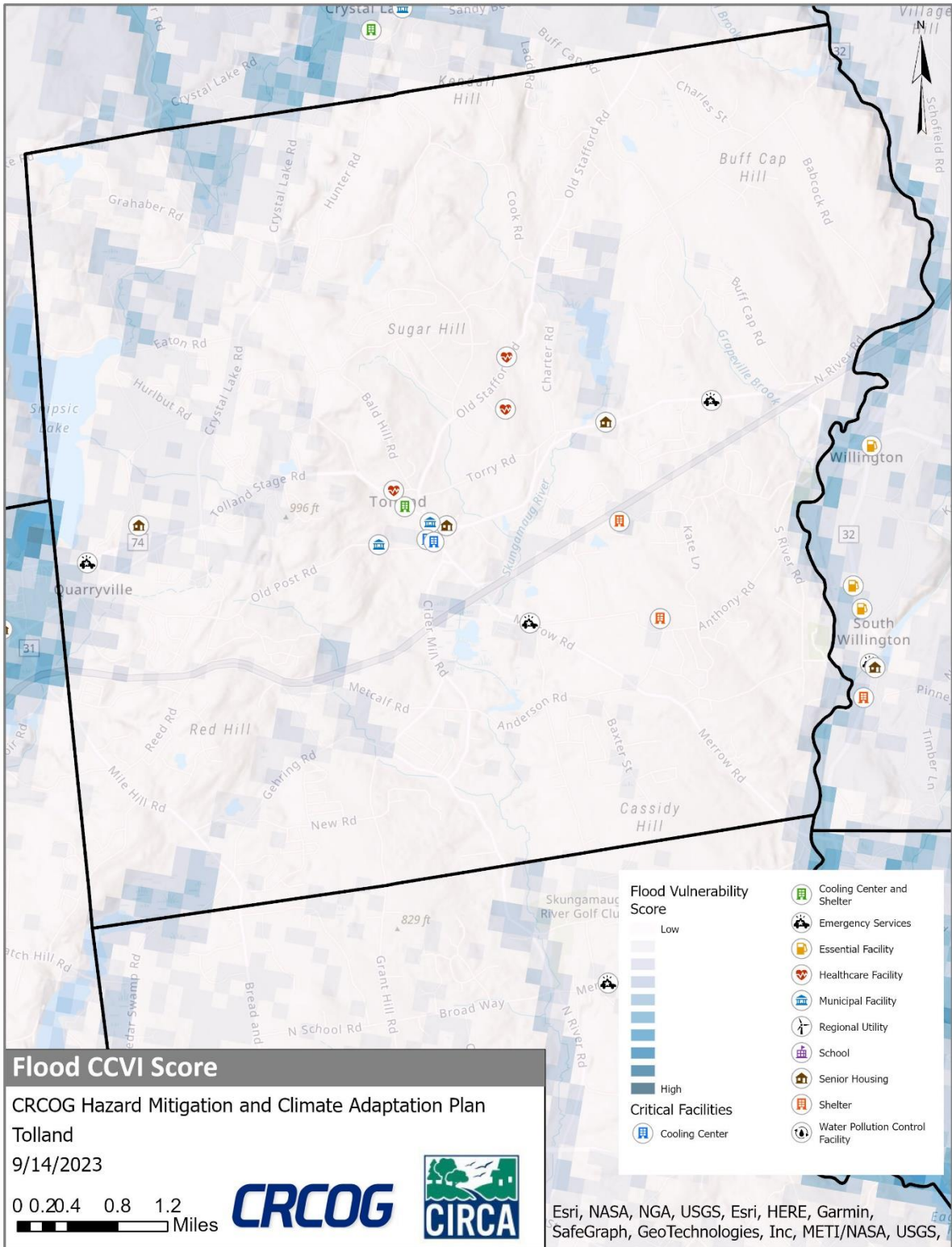


Figure 32-4: CIRCA Heat CCVI and Critical Facilities, Tolland

