



2 Avon

Community Overview

Avon is a suburban town in north-central Connecticut with a population of about 19,795. It has an average elevation of about 350 feet. The town encompasses 23.5 square miles, lying entirely within the Farmington River watershed. The Farmington River forms the town's western border then makes a U-turn in neighboring Farmington, to flow south to north in the eastern section of Avon. Major tributaries that course through town include Big, Chidsey, Cider, Hawley, Nod, Roaring, Thompson, and Wiggin Brooks. Major state routes that pass through Avon include Routes 10 and 44. Insurance, printing, concrete products, poultry processing, reflective tapes, fiber optics, and medical facilities are the major industries in Avon.

Any development whether residential or commercial, if built on property of which any part is mapped as floodplain, is required to meet all floodplain elevation regulations. This elevation is at least 1 or 2 feet above the known floodplain levels. There have been no new developments approved in the recent past that did not meet these elevations requirements. The existing zoning regulations are currently being comprehensively revised and will include a revised Design Flood Elevation (DFE) requirement.

Development/redevelopment is not increasing risk to natural hazards.

Critical Facilities

In Avon critical facilities include the Company 1 Volunteer Fire Department, the Town Hall complex, Avon High School, the Public Works facility, the Avon Free Public Library, the Avon Senior Center and a number of medical facilities.

Table 2-1: Critical Facilities, Avon

Facility	Shelter	Cooling Center	Generator
Avon High School	Primary		X
Town Hall Complex			X*
Company 1 Volunteer Fire Department		X	X
Public Works			X
Police Department			X
Library		X	
Senior Center		X	

*The Town Hall campus does not have generator facilities with the exception of the Police Department which does have generator power.

During extreme heat events, Avon Free Public Library and Avon Senior Center can both be opened as public cooling centers. Generators for these facilities are needed. These facilities typically rely on usage during normal hours of operations, although hours could be extended if needed or opened on Sundays. Most people in town have cooling access so there is not much demand for the cooling centers to be opened. The Fire Department could also be used on a more individual basis as a cooling center, barring

emergency operations for the Department. People can call the non-emergency number to request assistance. Demand has typically been low. All fire houses and public schools in Avon have generators.

Capabilities

Avon's hazard mitigation capabilities include its emergency response departments, primary shelter, zoning regulations, and coordination with the regional energy provider. Hazard mitigation is addressed specifically in the community's Plan of Conservation and Development and Emergency Operations Plan.

The Town of Avon consistently replaces and upgrades culverts and bridges and takes other steps to reduce its risk to flooding. Avon has strict floodplain regulations that encompass areas within both the 1% and 0.2% annual-chance floodplains, and that limit development within those areas. The Town also maintains zoning regulations that address the sustainability of buildings using eight measures of sustainability.

Zoning regulations require cisterns and fire ponds in new developments. The Town has a Fire Marshal who, among other duties as Emergency Management Director and AVFD Chief, typically recommends sprinklers in all new homes.

Avon works closely with the electricity provider Eversource to coordinate tree trimming and respond to power outages. Coordination has been successful, though outages still occur occasionally. The Town's Public Works Director is the Town's Tree Warden.

No new development or changes in land use have been approved recently in the floodplain.

The Farmington River bridge at Old Farms Road has been replaced and upsized in 2023. A 1,000-foot section of Old Farms Road has been elevated with the bridge, with the capacity to convey a 4-percent annual-chance flood. Avon also recently replaced a box culvert at Old Wheeler Lane, though that project did not include upsizing.

New EAPs have been prepared for the Upper and Lower Unionville Reservoir dams, both of which are Town-owned Class B dams.

Since adoption of the 2014-2019 Capitol Region Natural Hazards Mitigation Plan Update ("2014 HMP"), a furniture store on Waterville Road was approved to be constructed with a higher design-snow-load for the roof (greater than 30 pounds). This is an example of Avon building code requirements increasing the town's capacity to withstand natural hazards.

A dry hydrant was recently installed on Oak Bluff. Other fire suppression capabilities have increased somewhat with minor improvements throughout Avon Water Company, and with the acquisition of Avon Water Company by Connecticut Water Company which has improved the company's access to resources.

Coordination with Eversource has improved, and significant tree-trimming work has occurred. The Town evaluated potential microgrid use for the Town Hall complex and Company 1 Fire Department, with the nearby Village Center development benefiting as well; however, the microgrid appeared to have a poor benefit cost ratio, and application to PURA was not made.

Avon has been working to improve the Town's mapping capabilities, though resources are still somewhat lacking (see Challenges).

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

- Coordinate with NEMO and CROCG 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.
- Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.
- The Planning Director is also a certified Floodplain Manager (CFM)

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

Challenges

Challenges Overview

Tree management is a primary concern for Avon and a continual battle front. Avon has one tree truck. Eversource does do work in town, but on only a fraction of the streets at any given time. Eversource does not prune the trees by secondary lines, choosing to focus on the primary lines, which means that streets that have only secondary lines do not have much assistance with keeping the trees clear of the lines. The Route 44 corridor was out of power for about 24 hours due to a storm in 2021 and Town Hall was closed for a day. Parts of town were out of power for 4-5 days. There was not much damage within town, but the circuits that feed town were believed to be damaged. There was also tree debris down on roads.

The Marriott Residence Inn in the town lacks a generator, presenting a challenge for displaced occupants. Town staff note that there is a long waiting period for generators after they are ordered from distributors.

Avon identified issues on Eddy Street with a sanitary sewer line which experienced erosion under it and required emergency repairs. Erosion also occurred along New Road and Deepwood Drive, and this site still needs additional repairs. The Town has some ARPA funds that are going toward this in 2024.

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 Avon. 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 CROCG 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 CROCG 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 2-2: Average Annualized Losses, Avon

Hazard	Source	Average Annualized Losses (AAL)
Hurricanes/Tropical storms	NCEI	\$48,651.99
	NRI	\$948,584.90
	FEMA PA	\$0.00
Tornados/High Winds	NCEI	\$18,214.42
	NRI	\$239,738.26
Winter Storms	NCEI	\$14,429.07
	NRI	\$12,526.86
	FEMA PA	\$8,673.48
Flood	NCEI	\$14,747.11
	NRI	\$29,107.31
	NFIP	\$999.43
Drought	NRI	\$42,785.61
	USDA	\$0.00
Extreme Heat	NRI	\$21,615.89
Wildfire	NRI	\$3,481.67
Earthquakes	NRI	\$32,179.75
Dam Failure	HMP	\$32.00

Other Hazard Costs

A nor'easter on January 4, 2018, cost the Town approximately \$35,500 in cleanup and response.

Losses Summary

A review of the above loss estimates demonstrates that the Town of Avon 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:

- Increasing the Town tree management budget should be considered along with continued coordination efforts with Eversource to ensure proper limb and tree removal to avoid power outages and road blockages.
- New generators should be acquired for the Town Hall complex.
- To address the erosion under Eddy Street , New Road and Deepwood Drive, Avon should continue to utilize available funds for repairs and ongoing maintenance to ensure the stability of the sanitary sewer line.

Status of Previous Mitigation Strategies and Actions

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

Table 2-3: Status of Previous Mitigation Strategies and Actions, Avon

No.	Action	Notes	Status
13	Complete the replacement and upsizing of the Farmington River bridge at Old Farms Road	This was completed in 2020 with State funding. There is now no middle support under the bridge to reduce the likelihood of debris getting stuck. Old Farms Road was also raised approaching the bridge, and has stayed dry since.	Complete / Retire
12	Develop a flood mitigation plan for Buildings 1 at the Town Hall Complex using FEMA historic structure mitigation guidelines and public participation; this process can be used as a case-study for preservation-sensitive flood mitigation of historic properties.	There is a mitigation plan for flooding that includes building a masonry wall between Building 1 and Nod Brook. The Town has conceptual designs to renovate Buildings 1 and 2. There is an ongoing concern due to the heavy use of the buildings and the important storage space. The municipal campus is in a flood zone affecting all buildings including the Police Department and EOC. The buildings are not listed on any historic register, although they may be eligible.	Carry forward with revisions to de-emphasize the historic structure aspect and a focus on resilience of municipal buildings
11	Link properties in areas of flood risk to the Reverse 911 database to enable targeted messages.	Avon has the capability to use Everbridge and Reverse 911 to notify residents.	Complete
14	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.	Avon Engineering has never and has no plans to reach out to repetitive loss property owners. The Town does not know who has ever had a loss or how to identify them other than sending a blanket letter to residents within the FEMA base flood zone.	Carry forward or Retire
1	Develop written procedure for relocating personnel to areas at risk of isolation during floods.	The Town revised its emergency operations plan in 2023. Specific procedure for relocating personnel to areas at risk of isolation is not included in the EOP. FEMA is in the final stages of a project to remap flood zones within the Farmington River watershed which effectively includes all of Avon. As of the time of this update, it is unclear when the project is expected to be completed.	Capability / Retire

No.	Action	Notes	Status
2	Develop prioritized list of critical facility generator needs to guide future purchases.	The Town is upgrading and adding generator power to identified critical Town buildings that currently have needs. Each sewer pump station has a well maintained generator.	Carry forward to indicate a need for more generators
4	Install a satellite television system at the new EOC, once it is completed, to allow for monitoring of information when power and cable are out.	Some digital boxes for television are in some of the staff offices although not in the EOC, and the internet capability is strong. Intent has been met.	Intent has been met / Retire
5	Determine level of communication needed for all personnel and provide wireless communication in accordance with findings.	The Town has a project pending to update its communication network. The intent of this is complete.	Intent has been met / Retire
16	Complete a feasibility study to determine the effectiveness of implementing a microgrid at the Avon Town Hall campus.	The study was completed and the Town determined the project was not feasible to complete.	Complete/ Retire
8	Work with the Connecticut Water Company to designate new areas for fire protection.	No new expansions have occurred. The Town has spoken with CWC and in general this is cost-prohibitive if the only purpose is fire protection without gaining new customers.	Retire
9	Work with MDC to determine whether transmission routes can be mapped and used for emergency planning and response in Avon.	There is a major transmission line beneath Route 44 from the MDC reservoirs. Engineering has MDC drawings of transmission lines through Avon.	Potentially 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 is compliant with MS4 requirements. This is a capability.	Capability / Retire
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 works with existing and new businesses by continuing to monitor and enforce flood plain regulations.	Ongoing
10	Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.	Ongoing capability – Director of Planning Hiram Peck and Emergency Management Director Bruce Appell regularly attend events.	Ongoing Capability

No.	Action	Notes	Status
15	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.	The Town conducted a comprehensive historic resource inventory in 1998, although Town Staff are not sure if this indicated whether the properties were vulnerable. NOTE: The details of the 1998 Inventory are difficult to obtain. There are not many of these properties along the river or in flood zones. Revise this to instead have staff acquire and review the new SHPO GIS data.	Carry forward with revisions
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.	The Town has joined Sustainable CT and was certified Bronze in 2020. Town Staff understand the value of this program but each iteration includes revisions to the criteria that get progressively difficult to meet. The Town will likely not renew its certification because it is reportedly not the most productive use of staff time.	Action Completed / Retire

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 2-4: Active Mitigation Strategies and Actions, Avon

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	PERISTS x STAPLEE =
AV1	Complete the evaluation of the feasibility of a microgrid for Town facilities including commercial facilities important to the town, such as grocery stores.	Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.	Preparedness & Emergency Response	Chief Elected Official	\$10,000 - \$50,000	DCRF; FEMA HMA	07/2025 - 06/2027	Medium	All Hazards	No	18	4	72
AV2	Acquire generators or standby power for critical facilities.	Ensure that critical facilities are resilient, with special attention to shelters, cooling centers, and sewer pump stations.	Preparedness & Emergency Response	Emergency Management	\$100,000 - \$500,000	FEMA HMA; STEAP	07/2025 - 06/2026	High	All Hazards	No	19	5	95
AV3	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	07/2025 - 06/2026	High	Extreme Heat	No	19	3	57
AV4	Encourage residents to register for emergency alerts to their cell phones through the Everbridge Reverse 911 system. Include links on the Town	More than one goal.	Preparedness & Emergency Response	Emergency Management	\$0- \$10,000	Municipal Operating Budget	01/2026 - 12/2026	High	All Hazards	No	18	6	108

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 =
	website and Facebook page.												
AV5	Develop a flood mitigation plan for Buildings 1 and 2 at the Town Complex using FEMA mitigation guidelines and public participation.	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Property Protection	Planning	\$50,000 - \$100,000	FEMA HMA; DCRF	07/2024 - 06/2026	Medium	Riverine and Pluvial Floods	No	18	6	108
AV6	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.	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Property Protection	Planning and Engineering	\$0- \$10,000	Municipal Operating Budget	01/2026 - 12/2026	High	Riverine and Pluvial Floods	No	19	7	133
AV7	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 and Engineering	\$10,000 - \$50,000	DCRF; Municipal CIP Budget	07/2025 - 06/2027	Low	Riverine and Pluvial Floods	No	18	6	108
AV8	Review the Connecticut Cultural Resource Information System (ConnCRIS) to identify and understand historic and archaeological resources in areas of hazard risks found	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

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	PERISTS x STAPLEE =
	here: https://connris.ct.gov .												
AV9	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	Fire Department	>\$1M	DWSRF; FEMA HMA; STEAP	07/2025 - 06/2026	High	Droughts /Wildfire	No	19	8	152
AV10	Work with the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) to develop an appropriate scope of work to address flooding and extreme heat concerns in Resilient Opportunity Areas (ROARs).	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	More than one type	Public Works	\$0-\$10,000	CIRCA	07/2024 - 06/2027	Medium	Riverine and Pluvial Floods/Extreme Heat	No	18	5	90
AV11	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 2-1: CIRCA Environmental Justice Rank and Critical Facilities, Avon

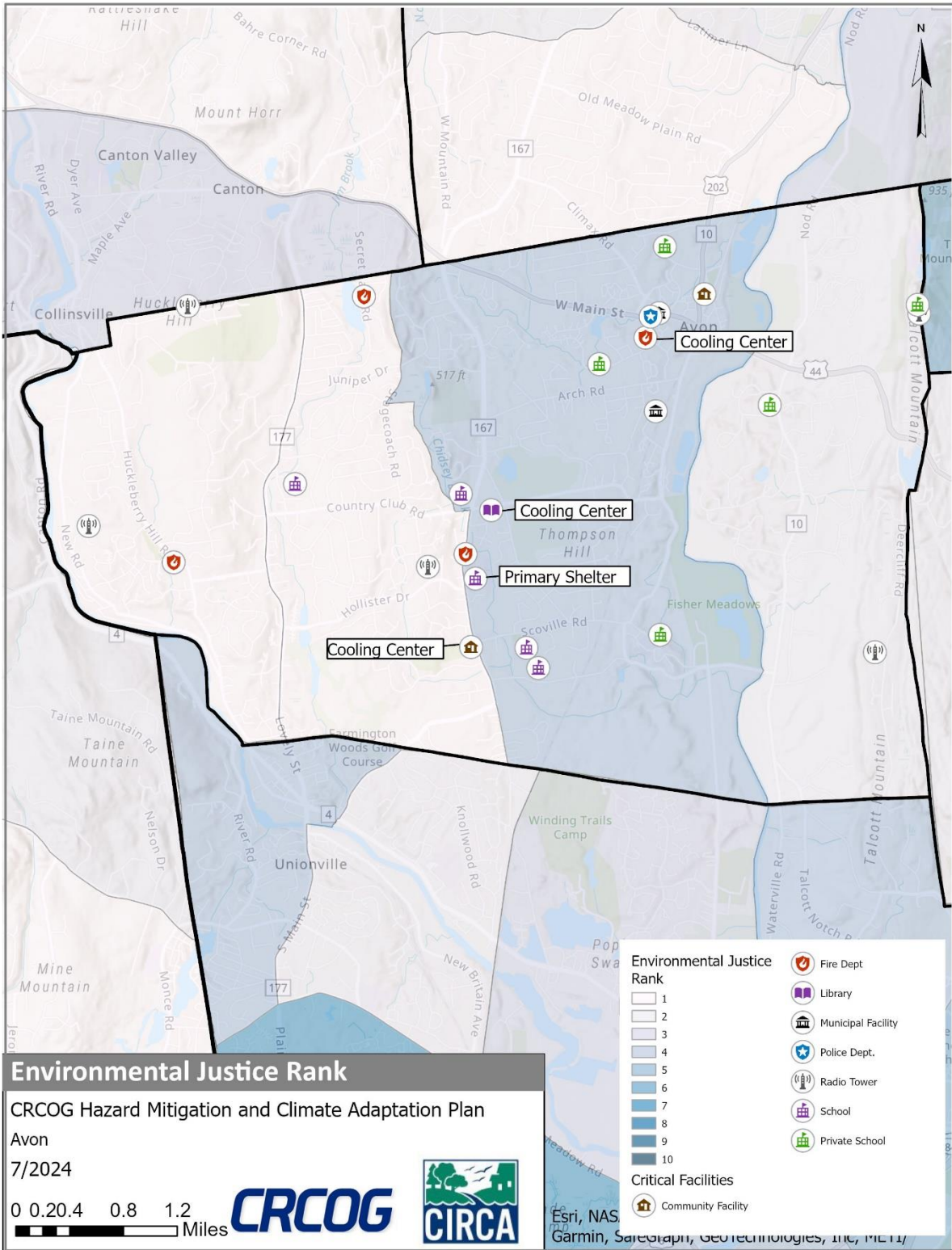


Figure 2-2: FEMA Flood Zones and Critical Facilities, Avon

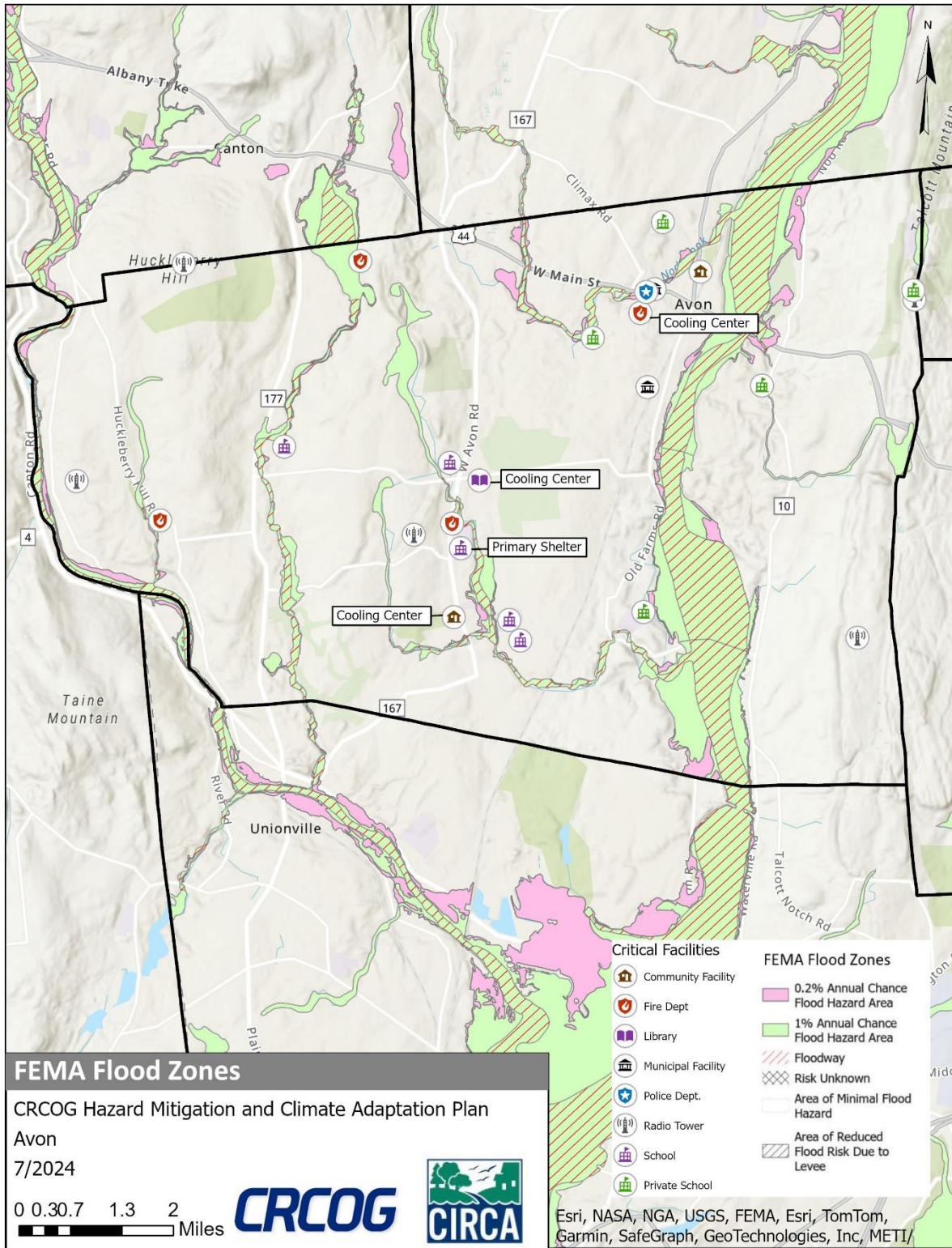


Figure 2-3: CIRCA Flood CCVI and Critical Facilities, Avon

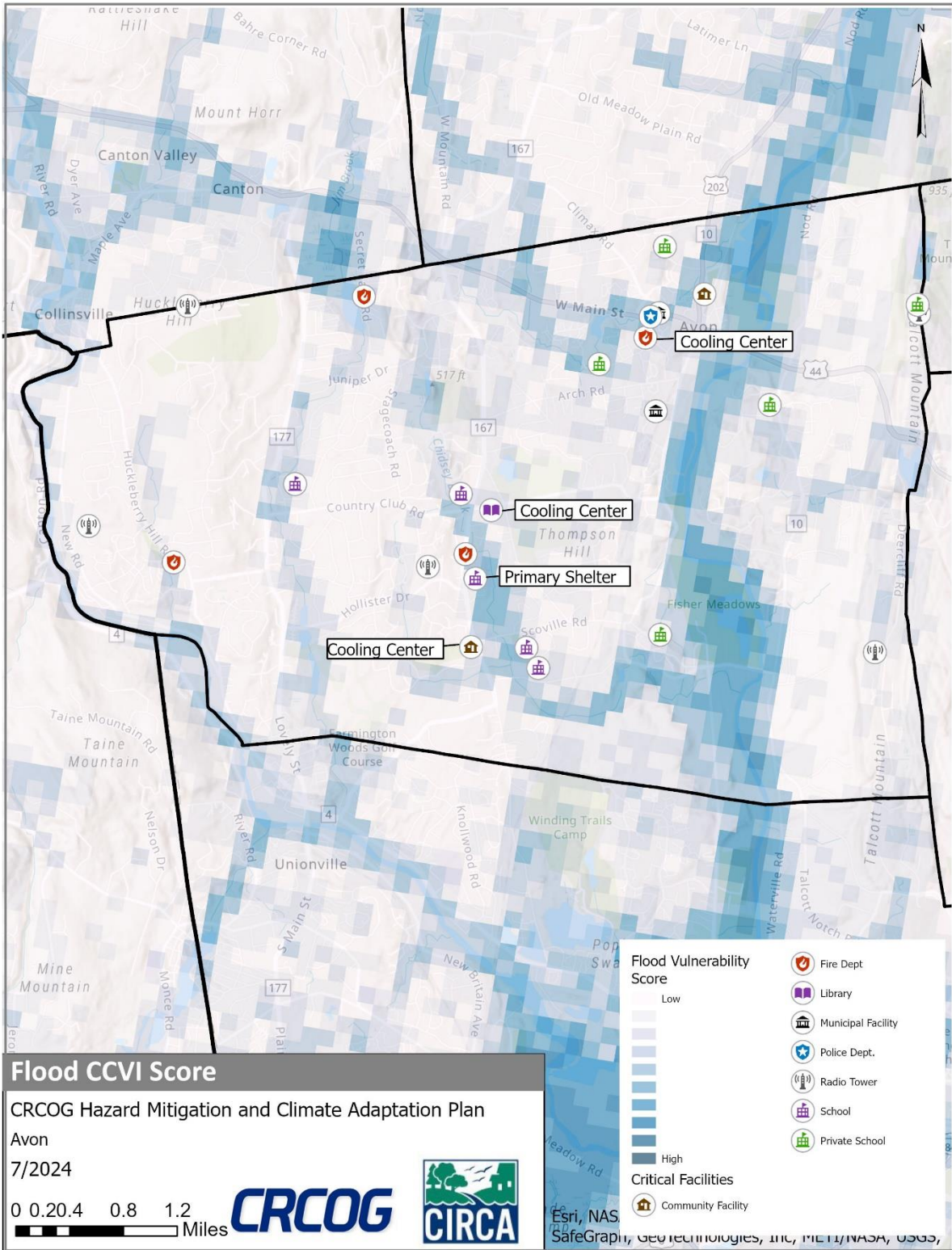


Figure 2-4: Dam Inundation Area and Critical Facilities, Avon

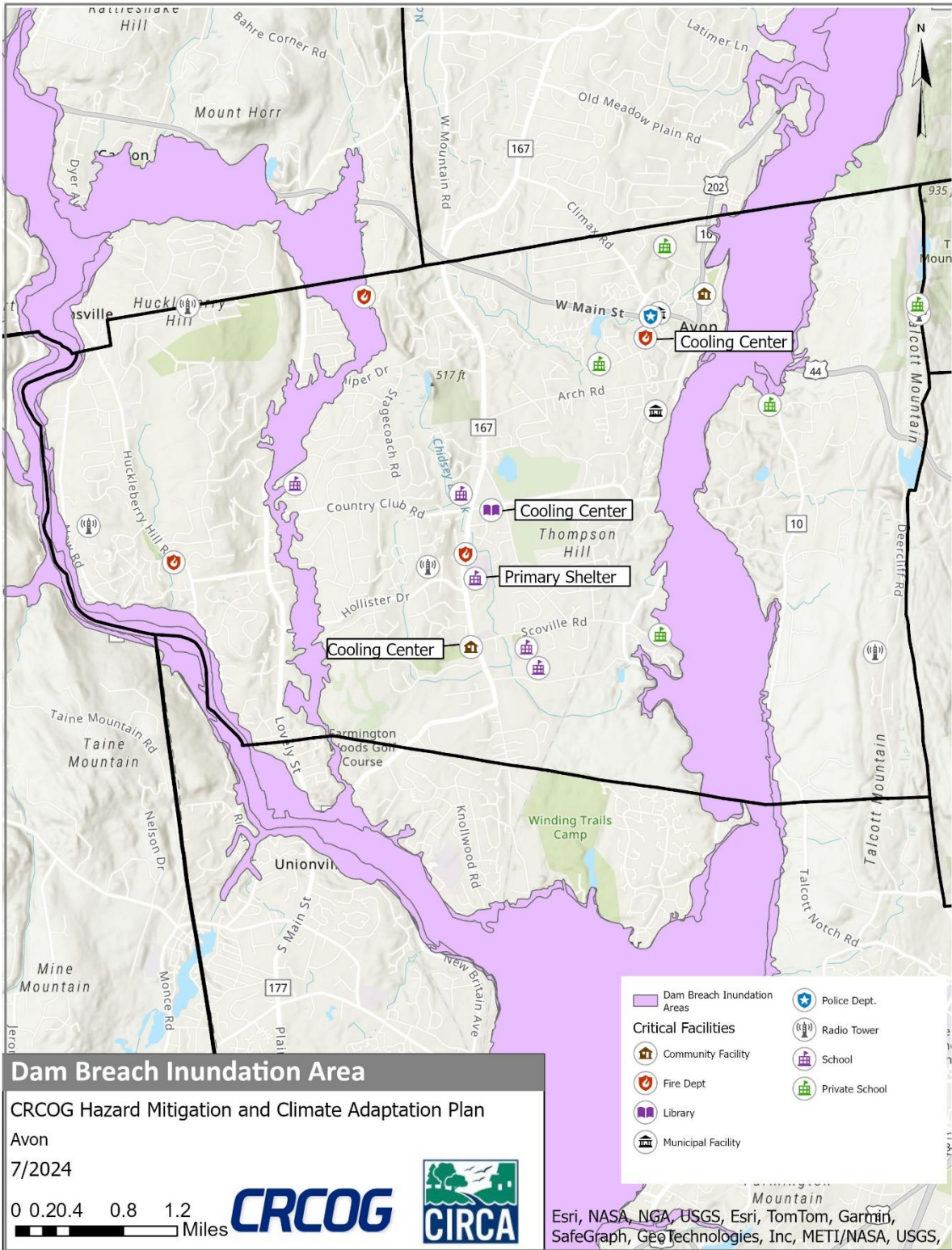


Figure 2-5: CIRCA Heat CCVI and Critical Facilities, Avon

