



## 11 East Windsor

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### Community Overview

East Windsor has about 11,190 residents. The Town's land area is 26.3 square miles, giving it a population density of approximately 412 persons per square mile. Approximately 60% of residents are concentrated in Warehouse Point in the northwest section of Town and 40% are located in the Broad Brook area in the eastern-central section of town. Town officials report that the resident population is increasing, mostly with people employed in either Hartford or Springfield.

On the east side of the Connecticut River, the town lies at an elevation of about 160 feet. The eastern portion of town is within the Scantic River Watershed, while the western portion lies in the Connecticut Main Stem basin. Major waterways in East Windsor include the Connecticut and Scantic Rivers, along with tributaries including Broad, Chestnut, Ketch, Namerick and Spring Glen Brooks.

Interstate 91 crosses the northwest corner of East Windsor. State Route 5 is a major north-south thoroughfare, while State Routes 140 and 191 provide east-west access. Principal industries include: agriculture, support system facilities, and manufacture of small tools, paper boxes, electronics, aluminum by-products, farm implements and fertilizers. The largest employers in Town are Southern Auto Auction, Walmart, Kettlebrook Care and the companies at the Industrial Park.

About 33% of the Town is developed, with most of the remaining area used for farming. In the last five years, recent developments include the pending opening of Watermill Landing, a 122 unit assisted living 55+ apartment building, and the construction of a new warehouse which is outside the flood zone on Rt 5. East Windsor has ceased considering any plans for casino-related development. Development/redevelopment is not increasing risk to natural hazards in East Windsor.

### Critical Facilities

In East Windsor critical facilities include the High School, Middle School, Elementary School, Town Hall, three Fire Stations, Police Department, East Windsor Ambulance Association, Hunt Water Treatment Plant, 10 sewer pumping stations, Department of Public Works (DPW) Garage, the Senior Center, Kettle Brook care Center, Touchpoints at Chestnut, St. Johns Church, and Water Pollution Control Authority (WPCA). These are summarized in the table below.

**Table 11-1: Critical Facilities, East Windsor**

Facility	Shelter	Cooling Center	Generator
Town Hall		X	X
Town Hall Annex		X	X
Warehouse Point Fire Dept. Station 138			X
Warehouse Point Fire Dept. Station 238			X
Broad Brook Fire Department			X
East Windsor Police Department - Emergency Operations Center - Emergency Management - Human Services - Ambulance			X
East Windsor High School	X		
East Windsor Middle School	X		
East Windsor Elementary School			
DPW Garage			X
Water Pollution Control Authority Facility			X
10 Sewer Pumping Stations			X
Hunt Water Treatment Plant			
2 DPS/DPW Communication Towers			X
Kettle Brook Care Center, LLC			
Albert J. Solnit Psychiatric Center North Campus			
Touchpoints at Chestnut			
Senior Center (Broad Brook Fire Dept. Floor 2)	Warming		X
St John's Church	Warming		
1 Eversource Area Work Center			

During extreme heat events, East Windsor Town Hall and East Windsor Town Hall Annex can both be opened as public cooling centers. Both facilities have generators and can be opened on Sundays / evenings if needed.

Shelters are a major concern of the town. The High School is the main shelter, but it does not have a generator. The high school is comprised of multiple buildings connected, with some electrical issues. The town has not yet been able to get a generator for the high school, because this will require an electrical study and likely an electrical upgrade.

The Middle School is quite a distance away from the High School, and both facilities can be used as shelters. This is intentional so that if there is a power outage on one side of town, the other may still be used as a shelter.

In addition to the critical facilities listed above, East Windsor has a number of historic sites and areas that contribute to community character and the local economy and may be particularly vulnerable to the effects of natural disaster. These include:

- Windsorville historic district
- Old Box Company (a locally-designated historic site)

- Broadbrook Opera House
- East Windsor Academy
- Melrose School

## Capabilities

East Windsor's hazard mitigation capabilities include its emergency response capabilities, regulation of flood risk areas, debris clearing, and snow management. Hazard mitigation is incorporated into the community's Plan of Conservation and Development (POCD). POCD actions specifically address natural hazards.

Since 2008, no new structures have been approved in the special flood hazard zone and a residential structure in the floodplain on North Water Street was recently removed through a demolition order.

Trees near powerlines are managed by the local energy provider (Eversource). The Town clears roads of debris but and has the equipment to remove large trees, not involved with power lines.

East Windsor uses snow fencing to manage snow drifting. The Town feels they do an excellent job of snow management.

Four of the Town's ten sewer pumping stations were upgraded during 2016 and 2017; work included upgrading the station emergency generators. Upgrades were completed at the following stations:

- Mill Pond Pump Station (Originally installed in 1977)
- Route 5 (South Main Street) Pump Station (Originally installed in 1981)
- Industrial Park Pump Station (Originally installed in 1976)
- Scout Hall Pump Station (Built in 2000, no generator until this upgrade)

East Windsor is working toward making the High School the Town's primary shelter, with the Middle School transitioning to a secondary shelter. A 100KW portable generator has been purchased, but neither the Middle nor the High School have had hookups installed at this point.

Since the 2019 HMP, not new actions have been incorporated as capabilities. Capabilities to address natural hazards and the losses that they have caused, have not increased since the last plan has been adopted.

## Challenges

### Challenges Overview

Flooding is a concern for East Windsor. The following areas have been identified as particularly prone to flooding:

- South Water Street and Bridge Street: homes here have flooded in the past; storm drains back up
- Culvert crossing on Spring Street, a second culvert crossing on Holcomb Terrace, undersized culverts on Route 510 and Main Street/Warehouse Points.
- Private driveways that cross the stream are a concern within the town

Shelter capacity is a concern for the Town.

The town is concerned with a washout in a farm field near the Winkler and Wells intersection, which has reportedly resulted in the formation of a cavern on private property.

The town has concerns related to potential tidal influence and occasional surcharging of stormwater systems from the Connecticut River. This issue is likely exacerbated by snowmelt from the north when the river is at high levels, causing water to back up in the stormwater systems. The town is uncertain about what further actions can be taken to address this issue, as such surcharging primarily happens under extreme conditions.

Inclement weather, specifically heavy rain, has emerged as a concern for the local tobacco farm. Over the past year, a substantial rain event occurred immediately after crop harvesting, leaving the fields exposed and vulnerable. This resulted in significant mud runoff from the fields, leading to dissatisfaction among nearby residents.

The recurring issue of springtime flooding at the WPCF is a notable concern, primarily attributed to the combined effects of snowmelt and rainfall. While the plant's inner workings have not been affected, there have been instances of stormwater surcharging around the plant buildings. It is of note that the WPCF and East Windsor operate independently.

The town notes that there are several driveways between Warehouse Point that have undersized culverts that obstruct the flow that are of concern.

East Windsor noted concerns about a house situated near the Scantic River, which is at risk of flooding, even though it hasn't experienced flooding thus far.

### 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 East Windsor. 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 11-2: Average Annualized Losses, East Windsor**

Hazard	Source	Average Annualized Losses (AAL)
Hurricanes/Tropical storms	NCEI	\$28,756.38
	NRI	\$596,267.54
	FEMA PA	\$0.00
Tornados/High Winds	NCEI	\$10,765.86
	NRI	\$129,198.70
Winter Storms	NCEI	\$8,528.49
	NRI	\$7,440.68
	FEMA PA	\$4,121.66
Flood	NCEI	\$8,716.47
	NRI	\$27,953.88
	NFIP	\$5,630.03
Drought	NRI	\$467,505.62
	USDA	\$122,877.93
Extreme Heat	NRI	\$13,693.65
Wildfire	NRI	\$570.04
Earthquakes	NRI	\$46,244.15
Dam Failure	HMP	\$20.00

*Losses Summary*

A review of the above loss estimates demonstrates that the Town of East Windsor 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

East Windsor should continue to pursue an electrical upgrade and a new generator for the high school to increase the town's sheltering capacity.

The Town may wish to pursue upsizing of the culverts that under preforming.

The town should continue to work with homeowners and consider buyouts of property on the west side of South Water Street to avoid repetitive flooding in the area.

The town of East Windsor and the WPCF should continue to communicate and work together to address flooding that occurs at the facility if needed.

To mitigate the impact of heavy rain on the local tobacco farm, improved drainage and field management strategies should be considered by the town.

## Status of Previous Mitigation Strategies and Actions

The Town of East Windsor reviewed the mitigation actions proposed in the 2019 Capitol Region Natural Hazards Mitigation Plan Update and determined the status of each. That information is included in the table below.

**Table 11-3: Status of Previous Mitigation Strategies and Actions, East Windsor**

No.	Action	Notes	Status
1	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.	East Windsor has entered the program but has not yet pursued any certifications. The town is assessing things in-house first. Ruthanne suggested checking back on this question.	Completed /retire
2	Assign maintenance of special needs population list to specific department to ensure annual updates.	Roger Hart - This has been done but "could use a little work." Consider removing this action but keep a note saying that this list should be kept updated.	Intent is Complete/ retire
3	Hire an electrical engineer to wire the High School for a permanent generator.	Roger Hart - This has not yet happened. This need is an important step in making the High School a shelter as noted later.	Carry Forward
4	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.	The state program related to this is complete and materials are available on the DEEP website. This can likely be removed, but Ruthanne will check to see what previously happened on this.	Completed /remove
5	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.	Len Norton - East Windsor is an MS4 town and is compliant with annual reporting. There are still items in the program that the town has not had the funds or ability to complete, but the town does report every year what has been completed and what still needs to be done. CIRCA staff notes that if there are specific infrastructure projects that remain to be done, we should make them their own actions.	Intent is complete/ retire.
6	Increase use of social media to communicate with the community on planning for emergencies.	This is a capability and can be removed. Roger Hart said the town is doing this.	Complete/ retire
7	Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.	It's unclear who the floodplain manager is for East Windsor; Ruthanne hasn't been told this is part of her responsibility but there are floodplain regulations in the zoning regulations. Consider keeping this action or revising.	Carry Forward with Revisions
8	Improve ability of emergency responders to prepare and respond to wind events through training drills.	Roger Hart says East Windsor participates in the state's annual hurricane drill. This can likely be Completed as a capability.	Completed /retire

No.	Action	Notes	Status
9	Conduct an outreach program to recruit volunteers to staff emergency shelters.	Roger Hart - There was previously a good roster of volunteers but this group no longer exists due to people moving and/or retiring.	Carry Forward
10	Replace the emergency generator at the WPCA	Town staff is unsure whether or not this has been done – check back.	Carry Forward
11	Develop an Open Space Plan to guide acquisition, preservation, and efforts to incentivize redevelopment and infill over development of new land. Consider hazard mitigation is in plan development.	Ruthanne - A separate Open Space Plan has not been developed. Open space is addressed in the POCD and the town has an Open Space Fund. This action can likely be removed because the town is handling open space through the POCD and Fund.	Intent is complete/ retire
12	Implement the recommendations of the study of the dam on Main Street near Depot Street intersection.	Len Norton - The dam has been updated through a major reconstruction. Specifically, the town modified the dam and broadened the spillway about 4 years ago, increasing spillway capacity.. This is a mitigation success story.	Complete/ retire
13	Implement recommendations of NRCS, including installation of a detention basin in Rockville Road/East Road area to reduce road closures and washouts.	Len Norton - This is still needed. There's a culvert under the road and during severe rain events (4 inches in an hour, etc.), the area upstream has a tendency to erode and bring debris downstream, which clogs the culvert, which causes water to run down Rockville Road and East Road. The town has been looking into the possibility of doing a project here, but this would require easements or property acquisition. Design is still needed. This action should be reframed to advance the concept design to position this project better for funding.	Carry Forward with revision
14	Increase the public works staff and equipment availability.	Len Norton - During the past year the town has obtained a new loader and a new backhoe. Compared to five years ago, the town has more staff and more equipment. This action can be removed, as it has largely been completed.	Complete/ retire
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.	Replace this action with one that says to use the new SHPO layer to understand where vulnerabilities are. The town has 4-5 registered historic structures but no historic district.	Carry forward with Revisions



No.	Action	Notes	Status
16	Install a hookup at the Middle School to allow a portable emergency generator to be connected.	Roger Hart - This has not been completed. CIRCA staff explained that FEMA funds fixed-in-place generators but not portable generators, and suggested a modification. This action can be changed to focus on getting a generator for the Middle School, not necessarily a portable generator.	Carry Forward with Revisions
17	Conduct a study to identify appropriate flood control measures and monitoring regimes for the WPCA and surrounding area, including Blue Ditch.	Len Norton - There was a Blue Ditch study, which means the intent of this action has been completed. There are issues both upstream and downstream by the wastewater treatment facility. It's very flat in the downstream areas, with nearby ballfields also flooding. Upstream there are two road crossings which need to be improved (these are closer to route 140). The town knows what needs to be done here, but doesn't have the funds to do it. CIRCA staff suggests replacing this action because the study has already been done, and instead articulating a few specific actions. Len specified the following: Culvert crossing on Spring Street, a second culvert crossing Holcomb Terrace, undersized culverts on Route 510 and Main Street / Warehouse Points, and a single action that mentions private driveways that cross the stream (in case future funding sources can be used for driveway crossings).	Intent is completed /retire
18	Work with property owners, contractors and the DEEP to regularly remove beaver dams causing flooding on East Road and elsewhere.	Len Norton - The town replaced the East Road culvert with a double culvert to deter beavers, which seems to be working so far.	Completed /retire
19	Buyout property on the west side of South Water Street to avoid repetitive flooding in the area.	Len Norton - The town staff thinks that the property on the west side of South Water Street that floods is owned by the town. There may be one other house on the west side closer to Bridge Street, but town staff aren't sure. The town has not yet pursued any funds to purchase any properties. Keep this action.	Carry Forward

## 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 11-4: Active Mitigation Strategies and Actions, East Windsor**

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 =
EW1	Hire an electrical engineer to complete an electrical upgrade and wire the High School for a permanent generator.	Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.	Preparedness & Emergency Response	Emergency Management	\$100,000 - \$500,000	FEMA HMA; STEAP	07/2025 - 06/2026	High	All Hazards	Benefits an EJ tract	19	5	95
EW2	Conduct an outreach program to recruit volunteers to staff emergency shelters.	Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.	Education and Awareness	Emergency Management	\$0-\$10,000	Municipal Operating Budget	01/2026 - 12/2026	Medium	All Hazards	Benefits an EJ tract	18	7	126
EW3	Replace the emergency generator at the WPCA	Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.	Preparedness & Emergency Response	Emergency Management	\$100,000 - \$500,000	FEMA HMA; STEAP	07/2024 - 06/2025	High	All Hazards	Benefits an EJ tract	19	5	95
EW4	Acquire a generator for the Middle School.	Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.	Preparedness & Emergency Response	Emergency Management	\$100,000 - \$500,000	FEMA HMA; STEAP	07/2024 - 06/2025	High	All Hazards	Benefits an EJ tract	19	5	95
EW5	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	Benefits an EJ tract	19	3	57
EW6	Advance the concept design of a detention basin in Rockville Road/East Road area to reduce road closures	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as	Natural Resources Protection	Public Works	\$50,000 - \$100,000	DCRF; FEMA HMA	07/2026 - 06/2028	Medium	Riverine and Pluvial Floods	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)	EJ?	PERSISTS Score	STAPLEE Score	PERSISTS x STAPLEE =
	and washouts to position this project better for funding.	climate change increases frequency and severity of floods.											
EW7	Buyout property on the west side of South Water Street to avoid repetitive flooding in the area.	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Natural Resources Protection	Planning and Development	>\$1M	DEEP Open Space Grants; FEMA HMA; STEAP	07/2025 - 06/2029	High	Riverine and Pluvial Floods	Yes - EJ Tract	20	4	80
EW8	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	Benefits an EJ tract	19	6	114
EW9	Review the Connecticut Cultural Resource Information System (ConnCRIS) to identify and understand historic and archaeological resources in areas of hazard risks found here: <a href="https://conncris.ct.gov">https://conncris.ct.gov</a> .	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Property Protection	Planning and Development	\$0-\$10,000	SHPO; Municipal Operating Budget	01/2026 - 12/2026	Medium	Wildfires/ Tornadoes and High Winds/Riverine and Pluvial Floods	Benefits an EJ tract	19	9	171
EW10	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	07/2026 - 06/2028	High	Drought/ Wildfire	Serves an EJ tract	20	4	80
EW11	Work with the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) to develop an appropriate scope of work to address	More than one goal.	More than one type	Public Works	\$0-\$10,000	CIRCA	07/2024 - 06/2027	Medium	Riverine and Pluvial Floods/Extreme Heat/Tidal	Benefits an EJ tract	19	5	95

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?	PERSISTS Score	STAPLEE Score	PERSISTS x STAPLEE =
	flooding and extreme heat concerns in Resilient Opportunity Areas (ROARs).								Connecticut River Flooding				
EW12	Participate in EMI and DEMHS courses or the seminars and annual conference held by CIRCA and the Connecticut Association of Flood Managers.	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Education and Awareness	Floodplain Manager	\$0-\$10,000	Municipal Operating Budget	01/2025 and annually during this month	High	All Hazards	Benefits an EJ tract	19	6	114
EW13	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 and Development	\$0-\$10,000	Municipal Operating Budget	01/2025 - 12/2025	Medium	All Hazards	Benefits an EJ tract	18	7	126
EW14	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 and Development	\$0-\$10,000	DWSRF; FEMA HMA; STEAP	07/2025 - 06/2026	High	Riverine and Pluvial Floods /Drought	Benefits an EJ tract	20	10	200

Figure 11-1: CIRCA Environmental Justice Rank and Critical Facilities, East Windsor

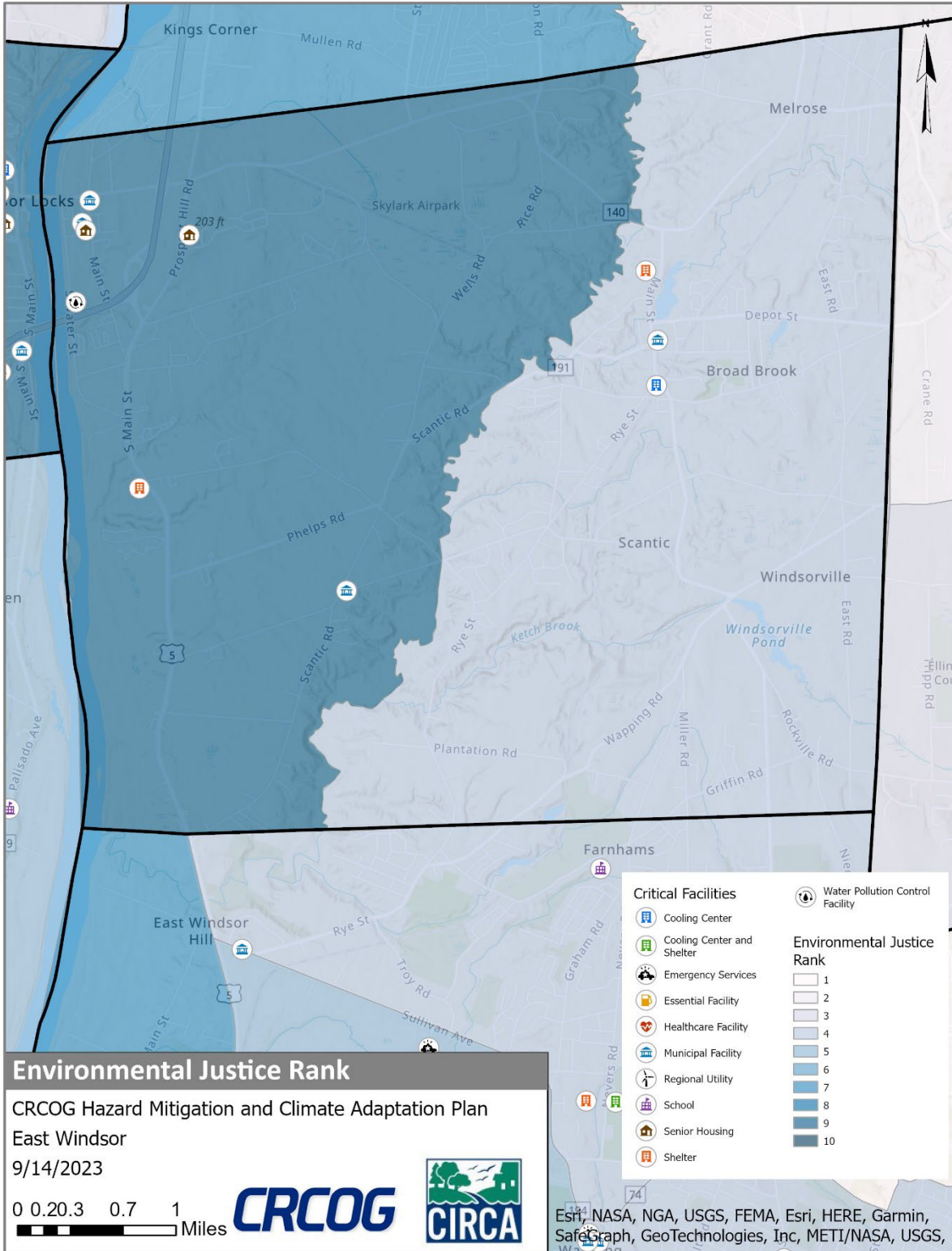


Figure 11-2: FEMA Flood Zones and Critical Facilities, East Windsor

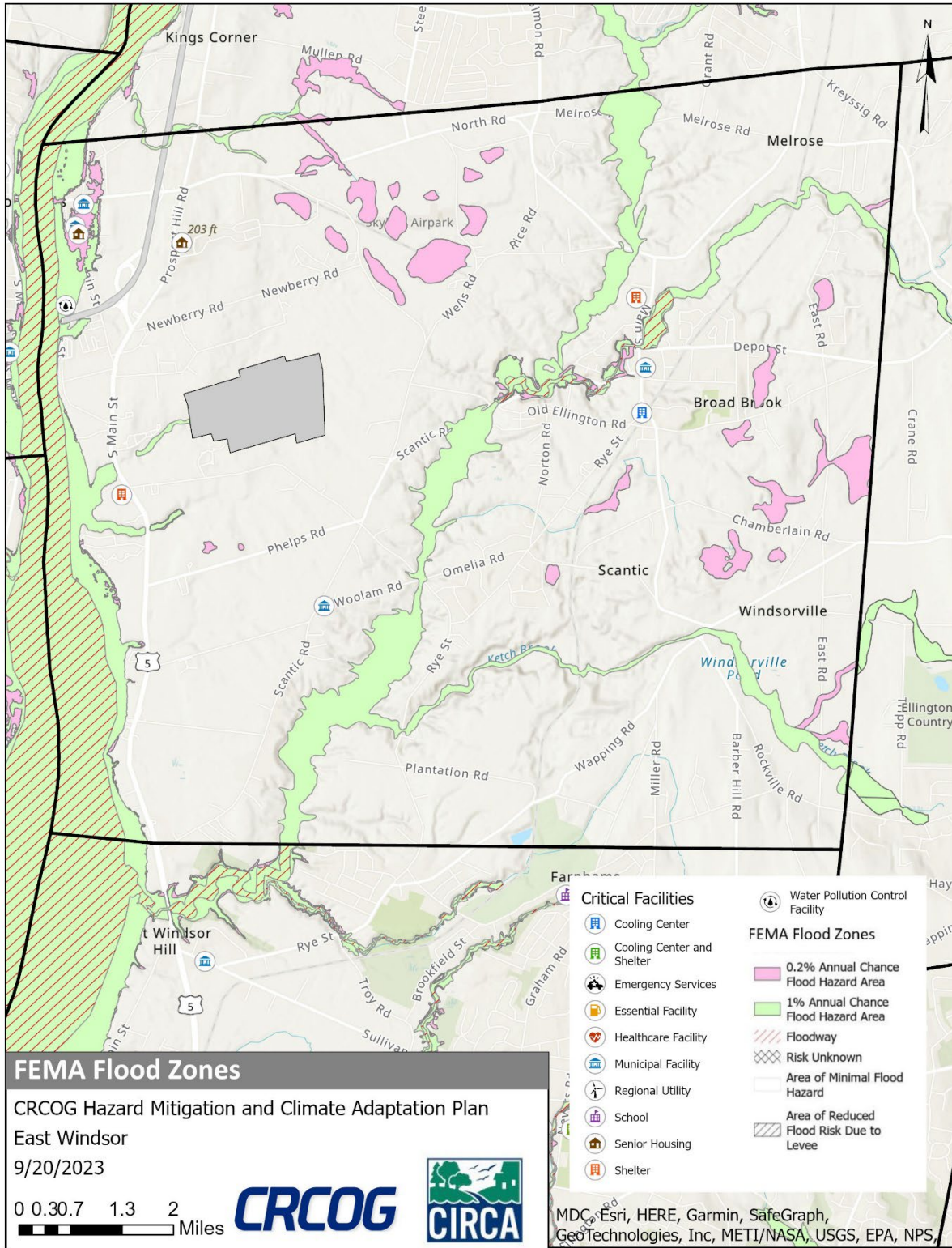


Figure 11-3: CIRCA Flood CCVI and Critical Facilities, East Windsor

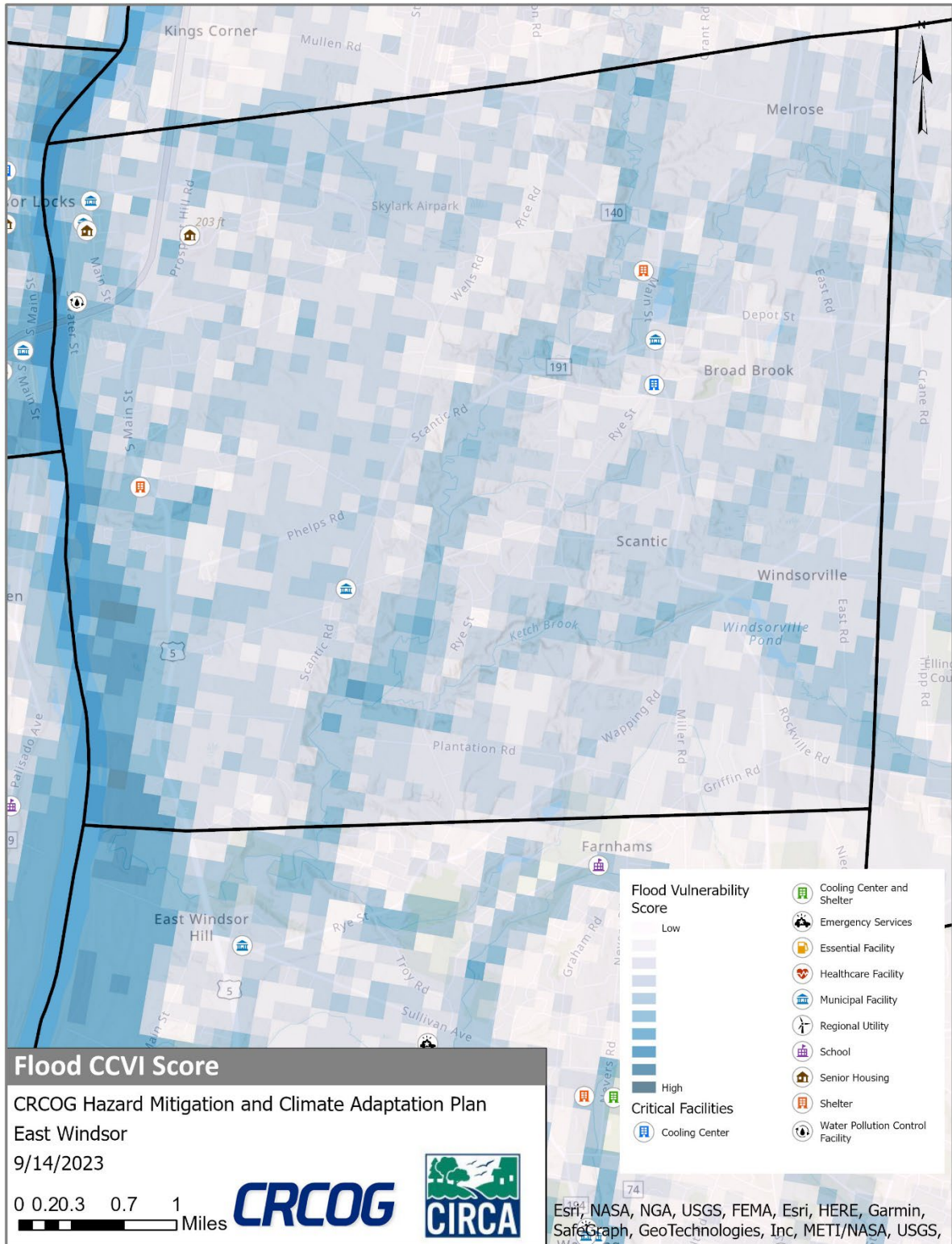


Figure 11-4: CIRCA Heat CCVI and Critical Facilities, East Windsor

