

# From Hazard Mitigation Plan to Hazard Mitigation and Climate Adaptation Plan



Re-Mapping a Familiar Path to Resiliency  
While Navigating the New FEMA Policy Guidance for Local Plans

**RESILIENT**  
Land & Water  
Sustainable Solutions, Stream to Shoreline



CAFM 2023 Annual Conference  
November 1st, 2023

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# AGENDA

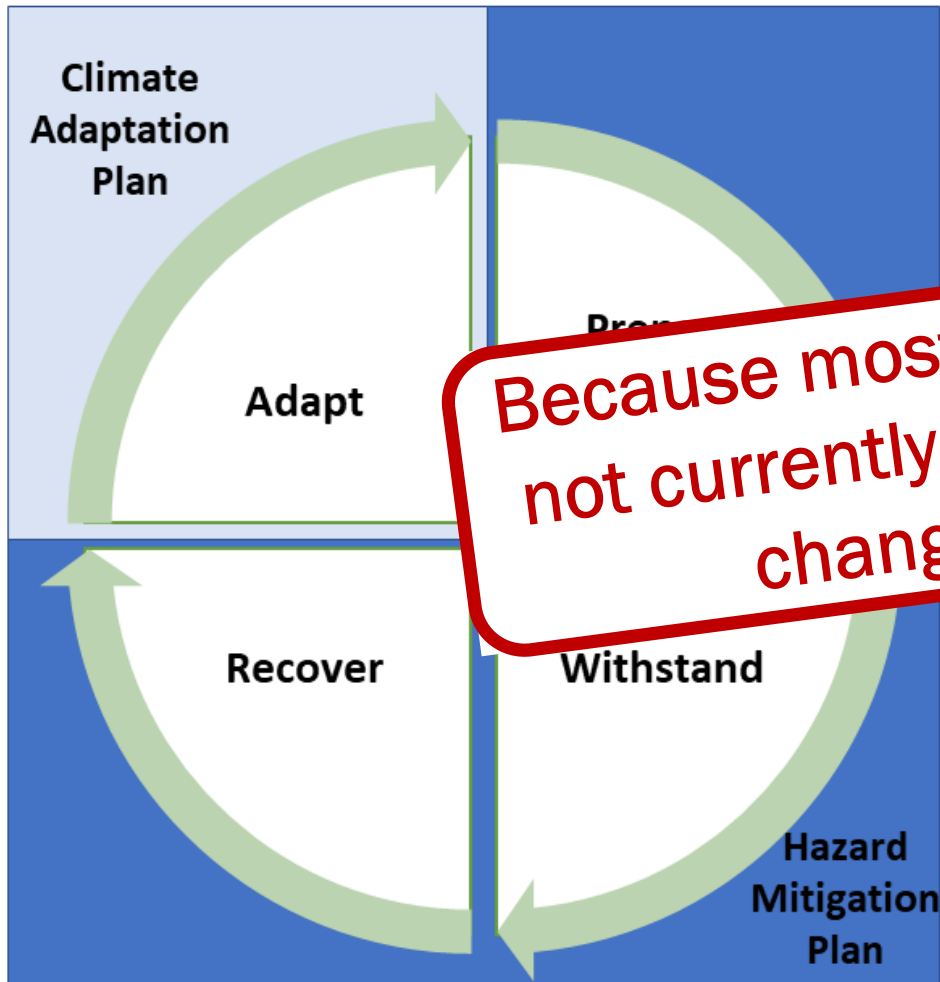
- Evolution from HMP to HMCAP: *Why?*
  - Intersection of climate change & hazards
  - Guidance from the state and others
  - Leverage new tools
  - Leverage new funding opportunities
  - Integrate with other planning efforts like *Resilient Connecticut*
- Evolution from HMP to HMCAP: *How?*
  - Reorganizing the hazards
  - Changing the question
  - What do we hear from the towns?
  - Becoming a more “usable” plan: shopping from your HMP or HMCAP
- Lessons learned





Evolution from HMP to HMCAP: *Why?*

# WHY EXPAND THE HAZARD MITIGATION PLAN?



1. Climate change impacts are expected to amplify many existing natural hazards.
2. An HMCAP can help COGs and towns align with the Governor's Office for Resilient Growth tools such as the Resilience Index.
3. An HMCAP can more ideally position COGs and towns for new funding sources like BRIC and the DEEP Climate Resilience Fund.
5. An HMCAP can be more effectively integrated into other planning efforts such as CIRCA's *Resilient Connecticut* program.

# INTERSECTION OF CLIMATE CHANGE AND HAZARDS

## Extreme Storms

- More intense storms with damaging winds
- **More intense rainfall**
- Heavier, wet snowfalls

## Sea Level Rise

- **Higher daily high tides, more damaging king tides**
- **More damaging storm surges when they occur**
- Shoreline change

## Rising Temps

- Longer and more frequent heat waves
- Landscapes more prone to wildfires

## Changing Precipitation

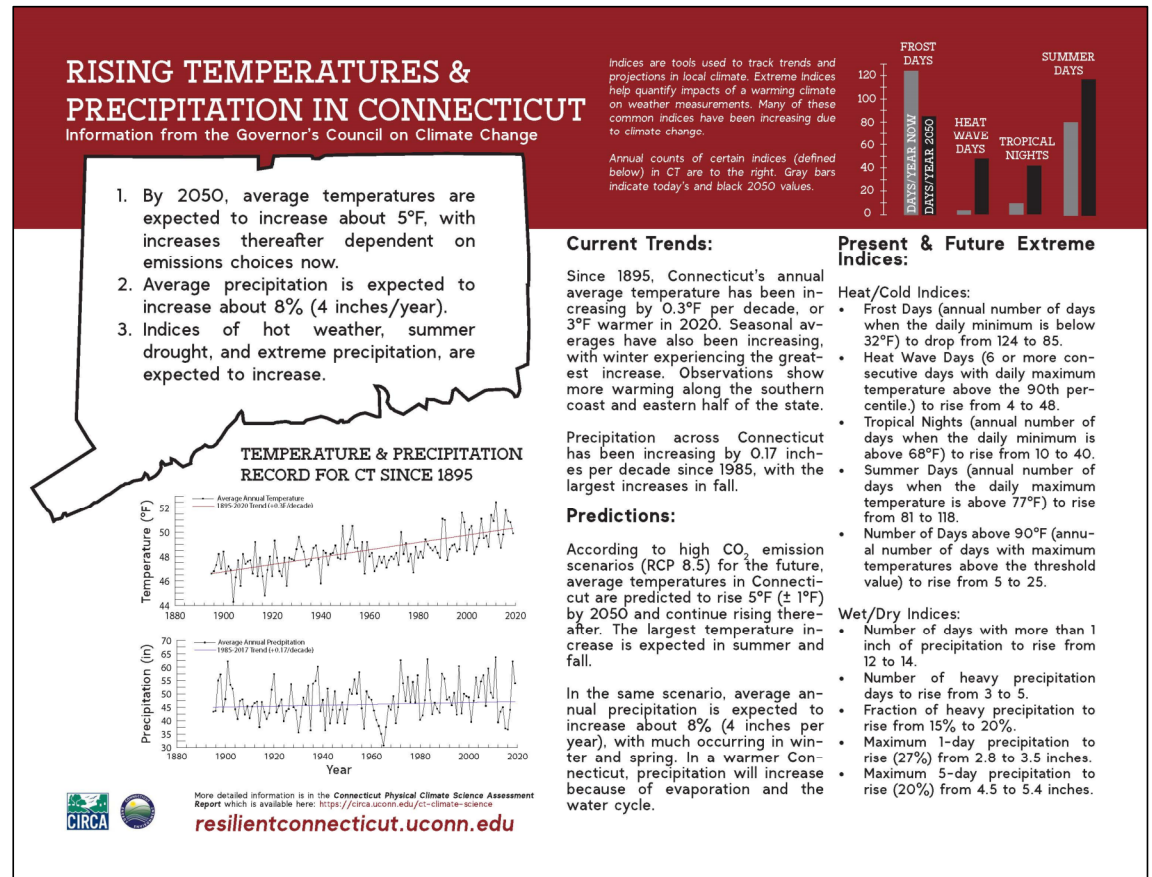
- More frequent dry spells and flashy droughts (rapid onset)
- **More flash floods from more intense rainfall causing washouts and dam overtopping**

## Earthquakes

- Older and compromised infrastructure and buildings could be at greater risk

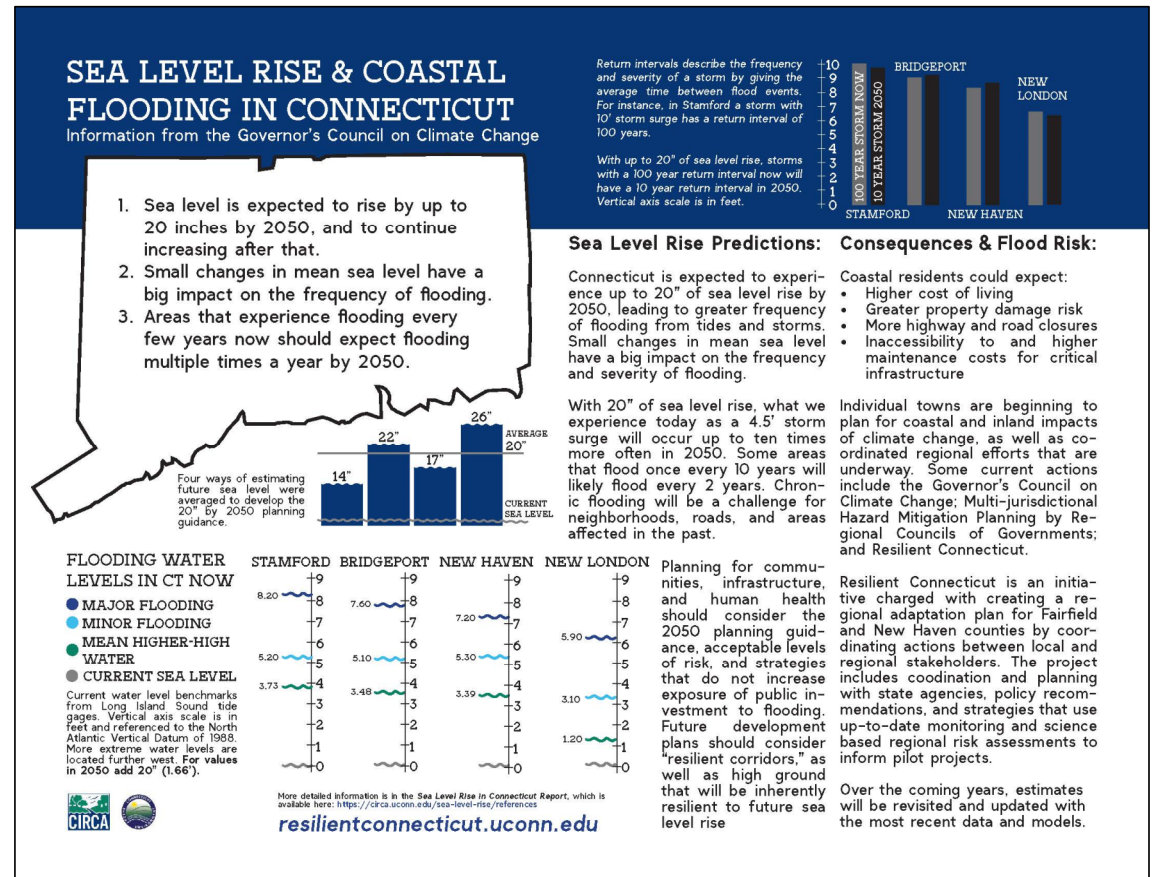
# GUIDANCE FROM THE STATE

- Number of days above 90 degrees to increase from 5 to 25 days
- Number of heat wave days expected to increase tenfold
- Average annual precipitation expected to increase 8%
- Number of days with heavy precipitation to rise from 3 to 5 days
- Maximum one-day precipitation to increase



# GUIDANCE FROM THE STATE

- The upper and lower bounds of projected sea level rise diverge, but confidence is high for a planning threshold of 20 inches by 2050
- State statutes require using this figure for planning
- This is a **planning threshold**, not a projection
- Number of days of sunny day flooding will increase tenfold



# GUIDANCE FROM OTHERS

## 4<sup>TH</sup> National Climate Assessment

- The dominant trend in precipitation throughout the Northeast has been towards increases in **rainfall intensity**.
- Further increases in rainfall intensity are expected, with **increases in precipitation expected during the winter and spring with little change in the summer**.
- Monthly precipitation in the Northeast is projected to be about **1 inch greater for December through April** by end of century (2070–2100).
- Although future projections of major floods remain ambiguous, more intense precipitation events have increased the risk of some types of inland floods.

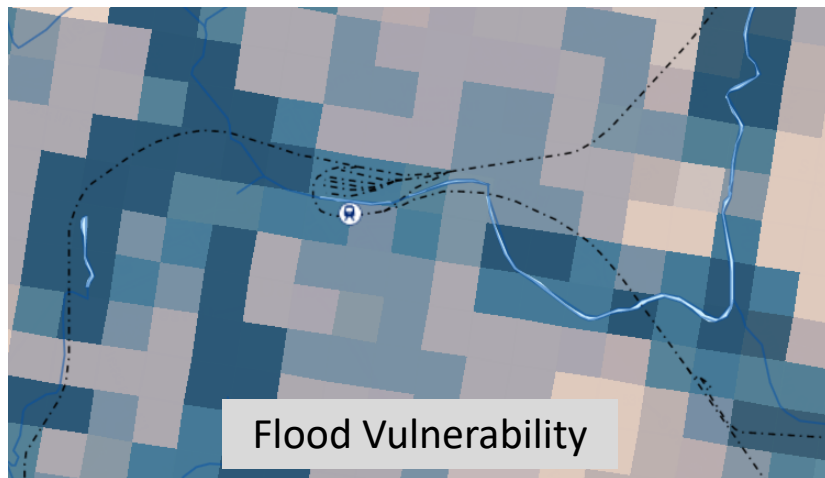
## NOAA NCEI State Climate Summaries

- Annual precipitation has been highly variable, with a slight increase since 1895.
- **Increases in the frequency and intensity of extreme precipitation events are projected, as are increases in winter and spring precipitation.**
- Increases in total precipitation and in the number of extreme precipitation events may increase inland flooding risks.

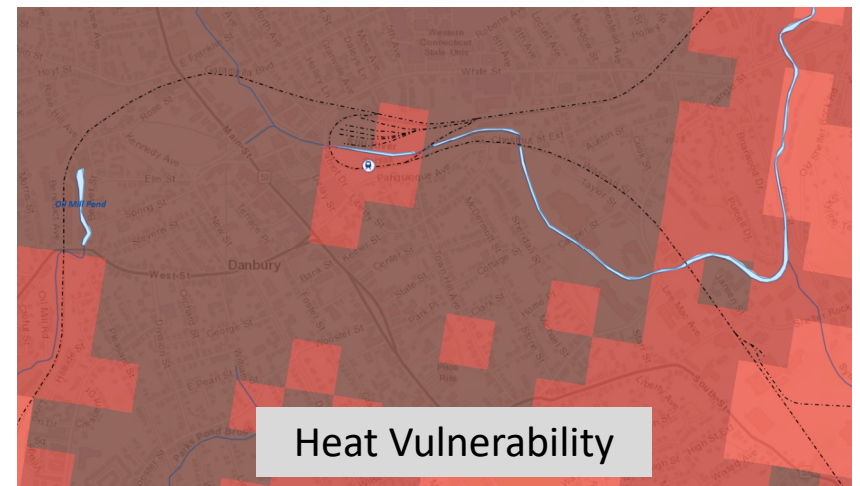


# NEW TOOL: CLIMATE CHANGE VULNERABILITY INDEX

- Statewide CCVI released by CIRCA in 2023



Flooding can be coastal, riverine, or pluvial (heavy rain)

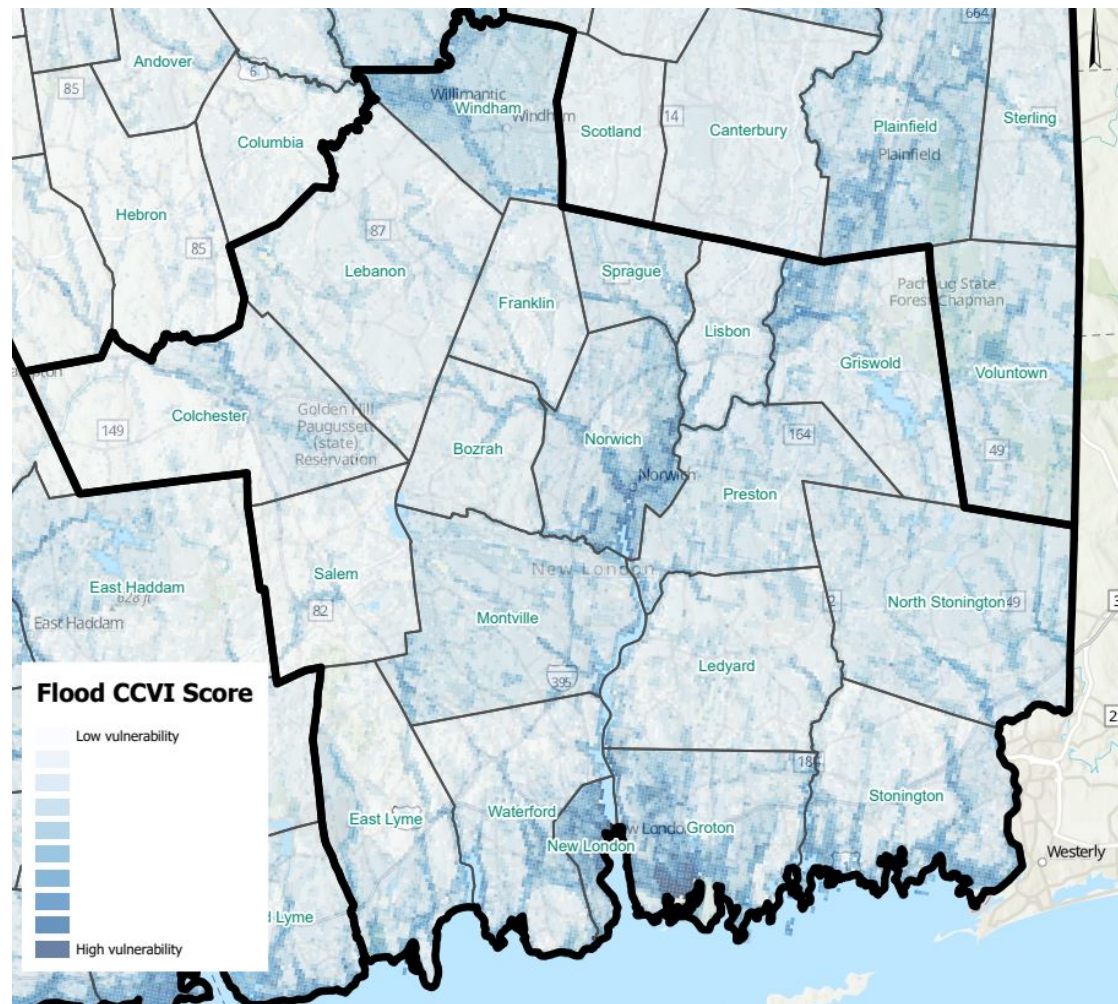


Considers where extreme heat is more likely as well as inability to seek respite

$$\text{Vulnerability} = \frac{\text{Sensitivity X Exposure}}{\text{Adaptive Capacity}}$$

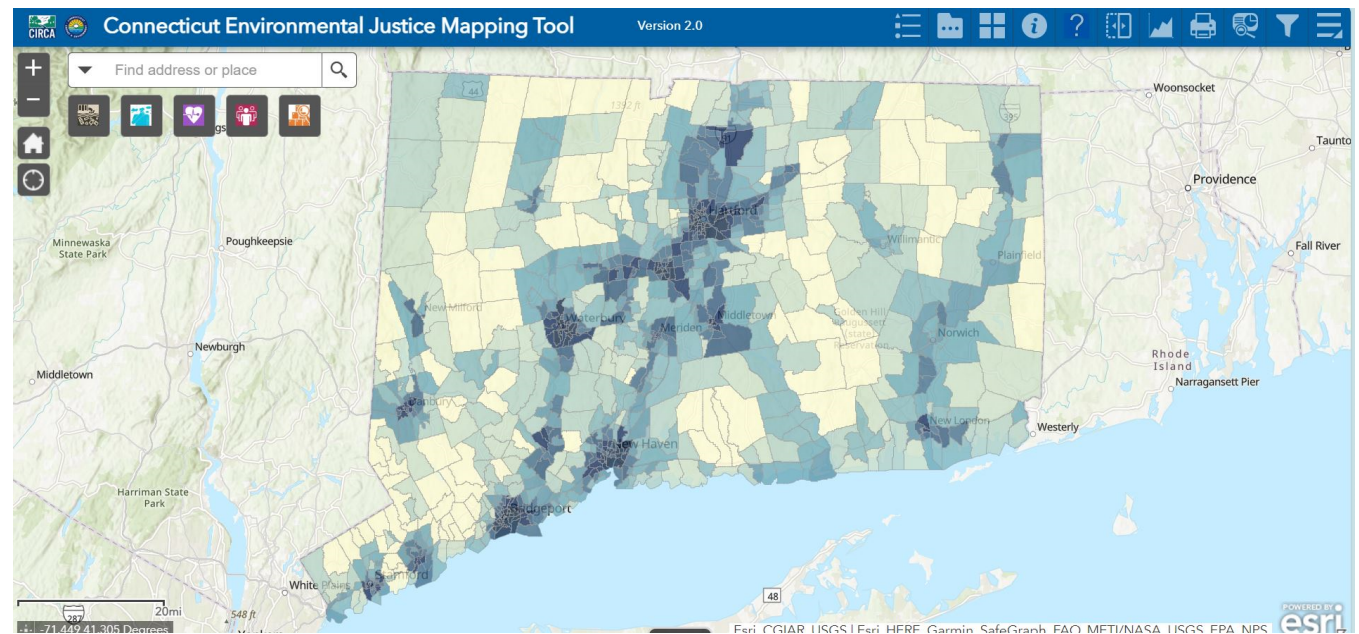
# NEW TOOL: CLIMATE CHANGE VULNERABILITY INDEX

- Flood Climate Change Vulnerability Index (CCVI) for SCCOG region
- Online viewer available
- CCVI maps have been incorporated into the SCCOG HMCAP and the CRCOG HMCAP (in progress)



# NEW TOOL: CT EJ SCREEN

- Connecticut Environmental Justice Screening Tool developed by CIRCA and DEEP
- Online viewer available
- CT EJScreen maps will be incorporated into the CROCOG HMCAP (in progress)
- CT EJScreen results can be used to target outreach to vulnerable populations



# CLIMATE RESILIENCE FUNDING OPPORTUNITIES

*Increasing attention and resources are being directed at climate resiliency efforts:*

- Governor's Office on Climate Change (GC3) priorities: Extreme heat, **flooding**, and environmental justice
- DEEP Climate Resilience Fund (DCRF)
- CIRCA's *Resilient Connecticut* Program
- Sea Grant's Long Island Sound Resilience Support
- FEMA's Building Resilient Infrastructure & Communities (BRIC)



# COORDINATION WITH OTHER PLANNING EFFORTS

## Hazard Mitigation Plan Update

Through the Hazard Mitigation Plans, the COGs and consultants:

- **engage** with municipalities and tribes to identify concerns and priorities
- **assess** community vulnerabilities and asset
- **identify** opportunities to reduce losses
- **develop** hazard mitigation projects for FEMA funding



## *Resilient Connecticut*

Through *Resilient Connecticut*, CIRCA and its partners:

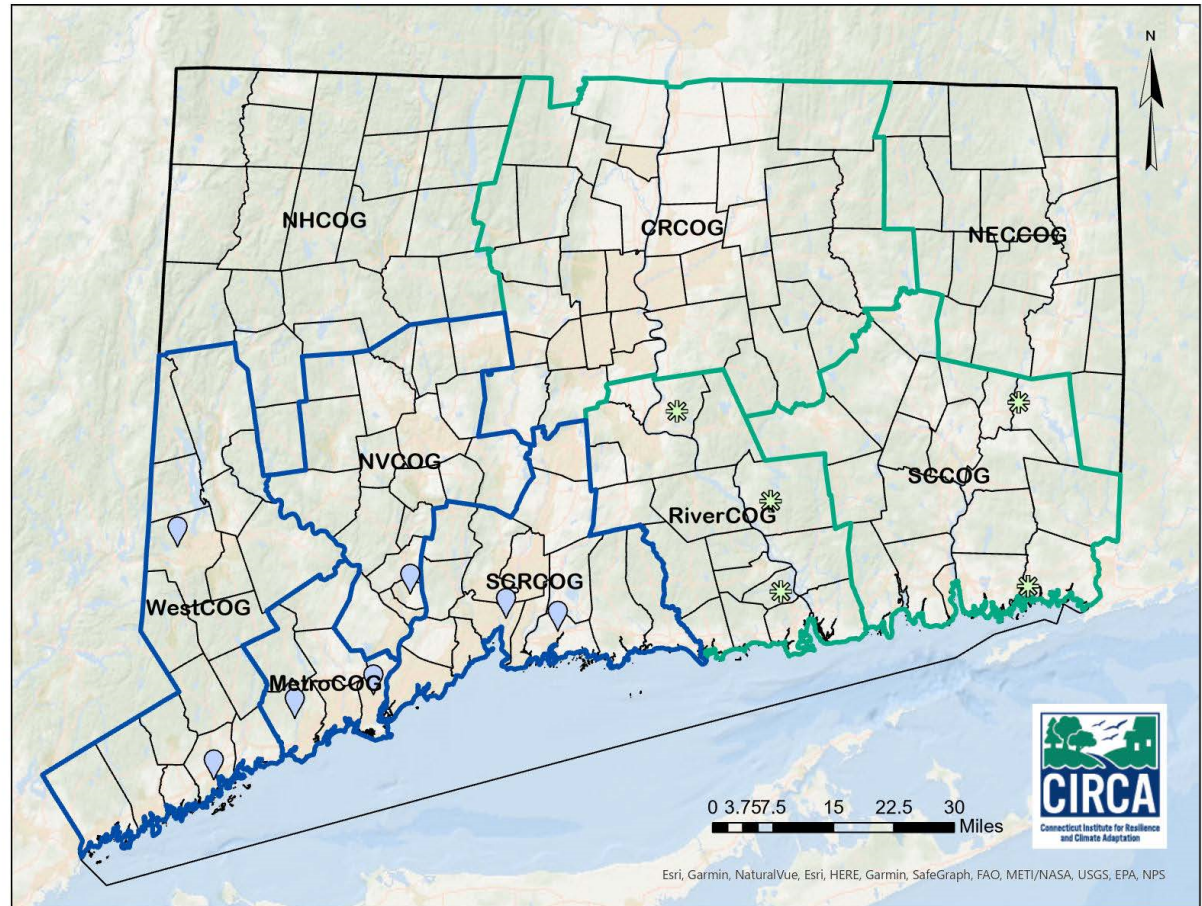
- **engage** with municipalities and tribes to identify concerns and priorities
- **assess** community vulnerabilities and assets
- **identify** opportunities for increased resilience
- **develop** pilot projects to directly fund



**Combined  
Hazard  
Mitigation and  
Climate  
Adaptation  
Plans for  
SCCOG and  
CRCOG**

# CIRCA'S RESILIENT CONNECTICUT PROGRAM

- Version 1.0 (blue boundary) was piloted in southwestern CT.
- Version 2.0 (green boundary) was deployed in RiverCOG, SCCOG, and CRCOG, in coordination with the SCCOG and CRCOG HMCAP processes.



# INTEGRATE WITH COMMUNITY PLANNING EFFORTS

**HMCAP may include longer term needs in a community which can be more fluidly discussed in other plans**

Extreme Temperatures identifies need for a new cooling or warming center



Integrated into a POCD

Sea level rise is projected to perpetually inundate neighborhoods in the future



Integrated into an Open Space Plan or Coastal Resilience Plan

Increased precipitation will continue to cause washouts at the culvert on Main Street



Integrated into a Capital Improvement Plan



# Evolution from HMP to HMCAP: *How?*

Photo Credit: Don Bell



# ORGANIZING PLAN BY CLIMATE DRIVER

## ➤ Extreme and Severe Storms

- Hurricanes and Tropical Storms
- Tornadoes and High Winds
- Severe Winter Storms

## ➤ Sea Level Rise

- Coastal Flooding
- Shoreline Change
- Tidal Connecticut River Flooding

## ➤ Rising Temperature

- Extreme Heat
- Wildfires

## ➤ Earthquakes

- Not affected, but addressed in the plan as always

## ➤ Changing Precipitation Patterns

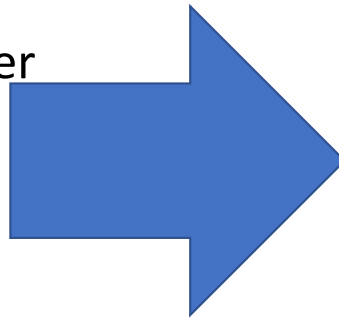
- Riverine and Pluvial Floods
- Droughts
- Dam Failure



# CHANGING THE QUESTION IN LOCAL MEETINGS

## Previous Approach:

- Asking for examples of projects that were appropriate to address individual hazards
- Asking what towns would do if funds were unlimited
- Sometimes led to towns getting caught up in specific hazards rather than seeing the big picture.



## New Approach

- Asking which climate-driven challenges are most urgent or apparent.
- Allows towns municipalities to identify their needs first without getting caught up in specific hazards. Subsequently, the proposed hazard mitigation and climate adaptation actions can be developed from those needs.

# WHAT DO WE HEAR FROM THE TOWNS?

## *“WHAT ARE YOUR CLIMATE-RELATED CONCERNS?” (SCCOG)*

SCCOG Town	Climate Concern #1	Climate Concern #2	Climate Concern #3
<b>Bozrah</b>	Livestock and chickens	Fitchville Dam condition	
<b>Colchester</b>	Vulnerable seniors (heat & flood)	Tree trimming/removal budget	Stream crossings
<b>East Lyme</b>	Water and sewer infrastructure	Limited egress in some areas	
<b>Franklin</b>	Drought impacts to agriculture	Drought impacts to private wells; lack of public water systems	Stream crossings
<b>Griswold &amp; Jewett City</b>	Vulnerable seniors (heat & flood)	Lake Road septic systems	
<b>Groton City</b>	Coastal roads that flood	Impervious surfaces (heat and flood)	Urban forestry
<b>Groton Town</b>	Mystic density, flooding, etc.	Underpasses	Sewer pumping stations
<b>Lebanon</b>	Chicken farms	Tenmile River cutting off road	
<b>Ledyard</b>	Lantern Hill Road/Whitford Brook	Cooling center needs generator	
<b>Lisbon</b>	Newent Road flooding in 2022	Vulnerable seniors (heat)	Droughts
<b>Montville</b>	Expand public water systems	Stream crossings	Age restricted housing clusters
<b>New London</b>	Flooding related to drainage systems	Fort Trumbull development	Urban forestry interests
<b>North Stonington</b>	Lack of shelter inside the town	Private wells / lack of extensive PWSs	Lantern Hill Road/Whitford Brook
<b>Norwich</b>	Redevelopment of mill buildings in flood zones	Impervious surfaces (heat and flood)	Sewer separation
<b>Preston</b>	Power outages from storms	Water and sewer expansion	
<b>Salem</b>	Having appropriate response capabilities	Livestock and chickens	Stream crossings
<b>Sprague</b>	Senior housing AC does not run on generator	Paper Mill, Versailles Dams owned by town	Water and sewer infrastructure
<b>Stonington Town</b>	Mystic density, flooding, etc.	Three WWTPs	Masons Island & other causeways
<b>Stonington Borough</b>	Direct coastal flooding	Limited egress for Borough	WWTP
<b>Waterford</b>	Elderly and access to cooling	Areas that can be cut off by flooding	
<b>Windham</b>	Lack of standby power for town facilities	Willimantic Reservoir/WTP challenges	

# WHAT DO WE HEAR FROM THE TOWNS?

## *“WHAT ARE YOUR CLIMATE-RELATED CONCERNS?” (RIVERCOG)*

RiverCOG Town	Climate Concern #1	Climate Concern #2	Climate Concern #3
<b>Chester</b>	Chester Creek corridor	Private dams	Dock Road elevation
<b>Clinton</b>	Sea level rise affecting septic systems	Private dams	
<b>Cromwell</b>	FD and PD flooded in 2021	Underpasses that flood	Shadow Brook and Cromwell Creek
<b>Deep River</b>	Fire house next to Deep River	School is regional shelter; access risks	
<b>Durham</b>	Microgrid for town center	Hosting migrants from shoreline	
<b>East Haddam</b>	Succor Brook corridor, Goodspeed, and WWTP	Rural road challenges	
<b>East Hampton</b>	Algal blooms closing Pocotopaug beach	Critical facilities next to Pocotopaug Creek	Private wells not running during outages
<b>Essex</b>	Ferry Street flooding	Bridges along Falls River	Choke point at Route 9
<b>Haddam</b>	Convert school to cooling center	Move DPW from floodplain	
<b>Killingworth</b>	Washouts into PWS reservoirs	Making the regional shelter more resilient	
<b>Lyme</b>	None!		
<b>Middlefield</b>	Flooding at small and blocked culverts	Debris in Coginchaug River floodplain	
<b>Middletown</b>	Sumner Brook corridor	Isolation risks for critical facilities in Mile Lane area	
<b>Old Lyme</b>	Sewer system expansions in beach communities	Swan Brook flooding and beach outfall	Underpasses and low roads
<b>Old Saybrook</b>	Coordinating many private beach actions	Underpasses that flood	Making "the loop" more resilient
<b>Portland</b>	Critical facilities that flood downtown	Fairground flooding and erosion	
<b>Westbrook</b>	Clearing clogged creeks	Wrights Pond Dam	Stormwater outfalls in tidal waters

# WHAT DO WE HEAR FROM THE TOWNS?

## “WHAT ARE YOUR CLIMATE-RELATED CONCERNS?” (CRCOG)

CRCOG Town	Climate Concern #1	Climate Concern #2	Climate Concern #3
<b>Andover</b>	Stream crossings	Generators for critical facilities	Limited egress for senior housing
<b>Avon</b>	Critical facilities in a floodplain	Tree management	Generators for critical facilities
<b>Berlin</b>	TBD	TBD	TBD
<b>Bloomfield</b>	Drainage-related flooding	Generator for cooling center	Maintenance of Park River flood control systems
<b>Bolton</b>	Power outages from storms	Stream crossings	DEEP-owned and privately owned dams
<b>Canton</b>	Tree management	Microgrid for critical facilities	Dams
<b>Columbia</b>	Stream crossings	Stormwater infrastructure	Limited egress for specific subdivision
<b>Coventry</b>	Harmful algal blooms in Coventry Lake	Tree management	Stream crossings and stormwater management
<b>East Granby</b>	Generators for critical facilities	“Wind corridor”	Stream crossings
<b>East Hartford</b>	Shelter capacity	Hockanum River flooding	Generators for critical facilities
<b>East Windsor</b>	Generators for critical facilities	Stream crossings	Agricultural fields (tobacco)
<b>Ellington</b>	Stream crossings	Generators for critical facilities	Limited egress for specific neighborhood
<b>Enfield</b>	Stream crossings	Agriculture	Historic resources
<b>Farmington</b>	Riverbank stabilization	Stream crossings	Backup Emergency Operations Center
<b>Glastonbury</b>	Stream crossings	Assisted living and low-income populations	Uranium in wells
<b>Granby</b>	Riverbank stabilization	Power outages from storms	Tree management
<b>Hartford</b>	Stormwater flooding	Flood management systems already in place	Shelter management challenges
<b>Hebron</b>	Water quality	Private wells	Sewer system
<b>Manchester</b>	Stream crossings	Stormwater infrastructure	Tree management

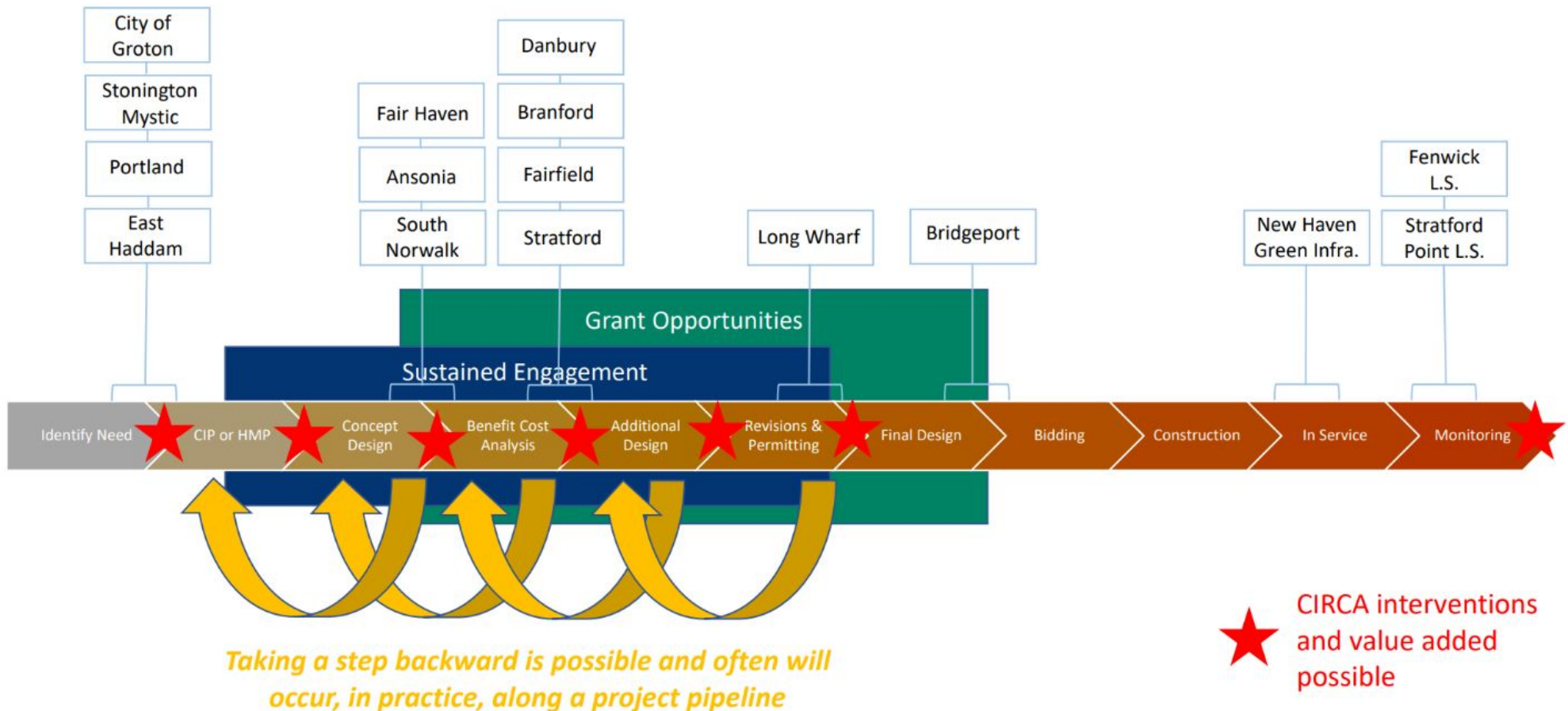
# WHAT DO WE HEAR FROM THE TOWNS?

## “WHAT ARE YOUR CLIMATE-RELATED CONCERNS?” (CRCOG)

CRCOG Town	Climate Concern #1	Climate Concern #2	Climate Concern #3
<b>Mansfield</b>	Power outages from storms	Road flooding/washouts	Public water and sewer systems
<b>Marlborough</b>	Stream crossings	Tree management	Vulnerable populations (elderly)
<b>New Britain</b>	Stormwater Management	Riverbank stabilization	Reservoir levels during droughts
<b>Newington</b>	Stream crossings over railroad	Stormwater infrastructure	Hotels that people are living in
<b>Plainville</b>	Power outages from storms	Unpredictable intense short-duration storms	WWTP
<b>Rocky Hill</b>	Shelter capacity	Vulnerable populations (assisted living, elderly)	Road elevation (Beach Rd)
<b>Simsbury</b>	Riverbank stabilization	Stream crossings	Stormwater infrastructure
<b>Somers</b>	Power outages from storms	Stream crossings	Tree management
<b>South Windsor</b>	Stream crossings	Power outages from storms	Generators for critical facilities
<b>Southington</b>	Flash flooding of roads	Properties in Quinnipiac River flood zones	Hotels without backup power
<b>Stafford</b>	Stream crossings	Generators for critical facilities, elderly housing	Fire station in floodplain
<b>Suffield</b>	Limited egress for specific neighborhood	Power outages from storms	Sewer system
<b>Tolland</b>	Unpaved roads	Stream crossings	Geographically-influenced winter weather
<b>Vernon</b>	Stormwater management	Generators for critical facilities	Sewer system
<b>West Hartford</b>	Stream crossings	Power outages from severe storms	Winter storms
<b>Wethersfield</b>	Stream crossings and stormwater management	Generators for critical facilities	Hotels that people are living in
<b>Willington</b>	Stream crossings	Generators for critical facilities	Treetop debris on ground
<b>Windsor</b>	Erodible soils with increasing precipitation		
<b>Windsor Locks</b>	Stream crossings and stormwater management	Many critical regional assets and infrastructure	Hotels that people are living in

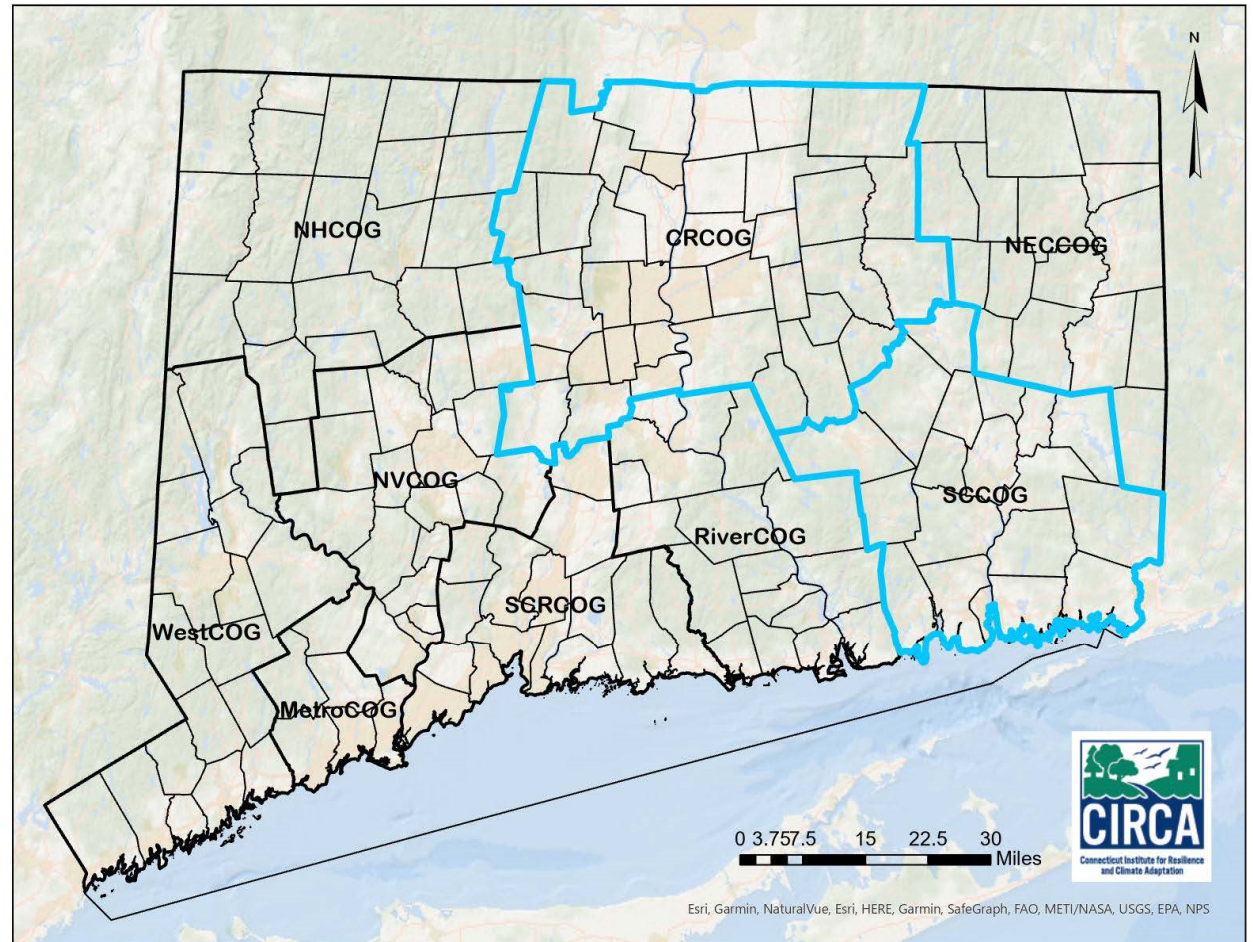
# BECOMING A MORE “USABLE” PLAN

- Hazard Mitigation and Climate Adaptation Plans can be used to identify projects for the state’s “Project Pipeline” (Executive Order 21-3 of December 16, 2021):



# SHOPPING FROM HAZARD MITIGATION PLANS

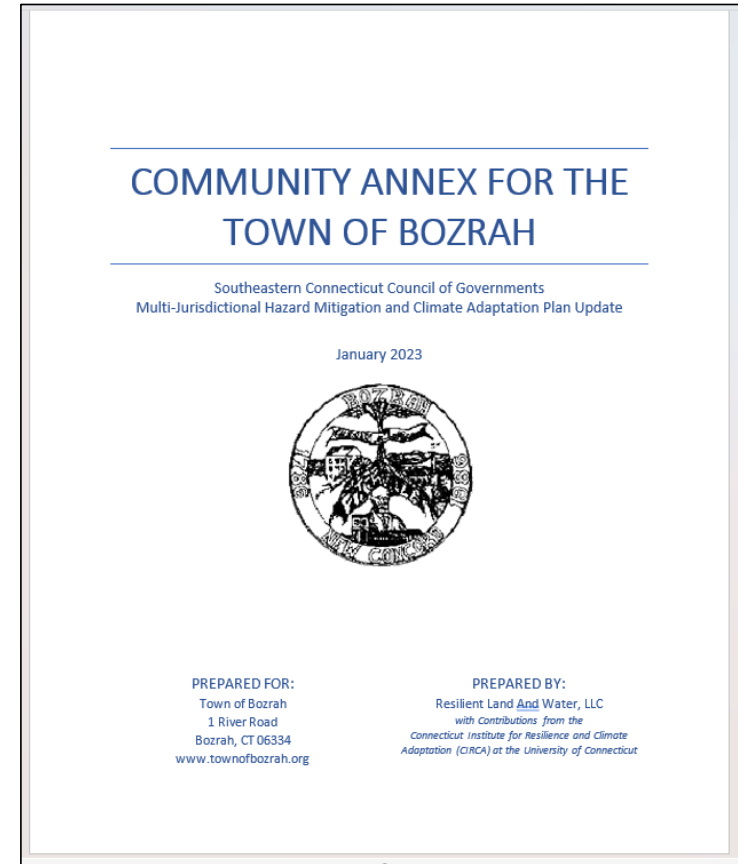
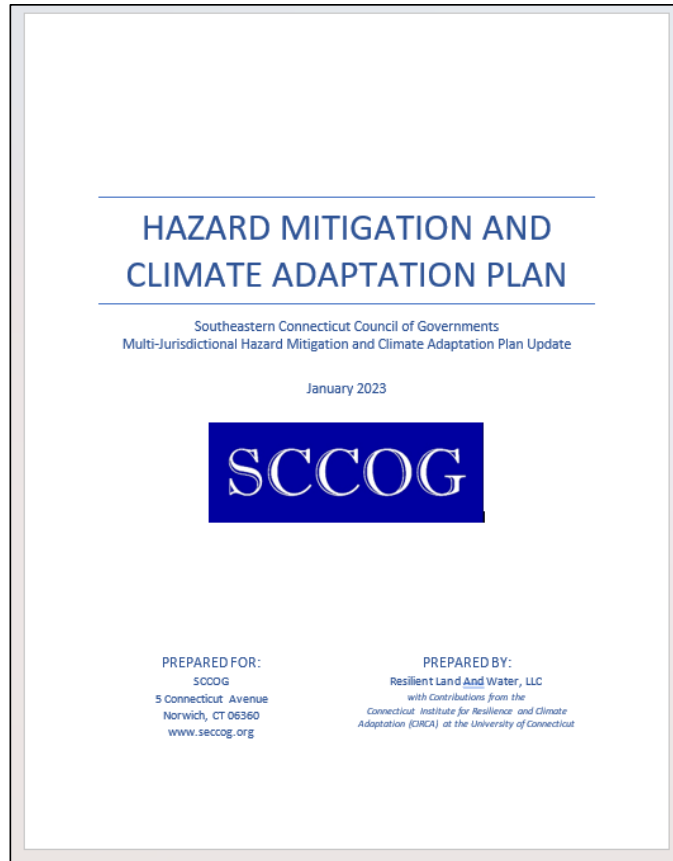
- All municipalities are part of COG-based multi-jurisdiction plans
- SCCOG and CRCOG are covered with new “hazard mitigation **and** climate adaptation” plans that were developed in parallel with *Resilient Connecticut* and deployment of DCRF





# SHOPPING FROM HAZARD MITIGATION PLANS

- SCCOG's plan is the first combined hazard mitigation and climate adaptation plan in the state
- CRCOG's will be the second.



# SHOPPING FROM HAZARD MITIGATION PLANS

- New summary sheets can provide ideas

Climate Change Summary Sheet for Town of Bozrah

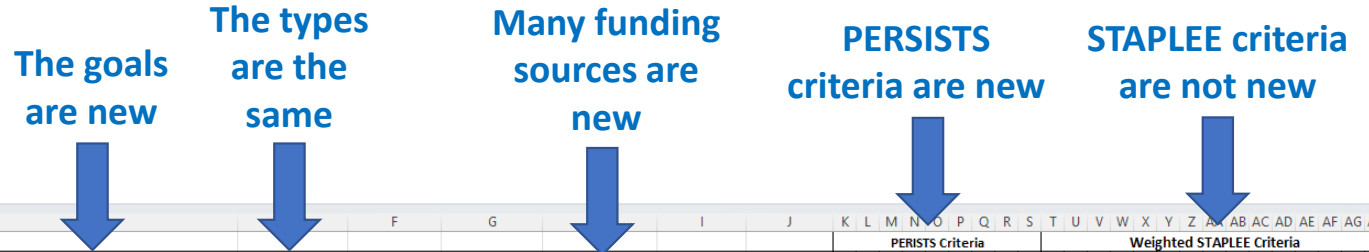
What are the Town's Top Climate Change Concerns?	<p><b>Flooding:</b> The Yantic River flows through the town and poses risk to Stockhouse Road. Trading Cove Brook in the southeastern corner of the town is also a concern. The Town is concerned with dam conditions throughout Bozrah.</p> <p><b>Extreme Heat:</b> The Town has increasing concerns about the effects of extreme heat events on chicken and other agricultural and livestock operations. Avian flu and other health-related cascading impacts of extreme heat events.</p> <p><b>Others:</b> The Town wishes to address remaining needs related to critical facilities that are needed to help address impacts of climate change.</p>
Which Hazard Mitigation and Climate Adaptation Actions Will Address Climate Change Concerns?	<p><b>Flooding:</b> Partner with CT DEEP's Dam Safety team to deliver a unified message to dam owners that inspections and risk communication are necessary. Target year 1 for working with DEEP and year 2 for the messaging to dam owners.</p> <p><b>Extreme Heat:</b> Partner with chicken farms and other facilities to develop reliable, drought-resilience water supplies and standby power that is capable of operating cooling equipment.</p> <p><b>Others:</b> Pursue American Red Cross certification to make Fields Memorial School the primary shelter and a cooling center, and additional certifications for the back-up shelters which include both Bozrah Moose Lodge 950 (alternate shelter) and the Volunteer Fire Company.</p>

Climate Change Summary Sheet for Town of Windham

What are the Town's Top Climate Change Concerns?	<p><b>Flooding:</b> The wastewater treatment plant (WWTP) and a sewer pumping station are at risk of future riverine flooding which is projected to continue or worsen even with an upstream flood control dam in place.</p> <p><b>Extreme Heat:</b> The Town has a large socially vulnerable population that cannot be without access to viable cooling centers. The Town Hall and Senior Center, which are cooling centers, need standby power such as generators.</p> <p><b>Others:</b> The Town's water utility, Windham Water Works, has a complex set of climate change challenges related to sedimentation, water quality, the reservoir dam, and power redundancies.</p>
Which Hazard Mitigation and Climate Adaptation Actions Will Address Climate Change Concerns?	<p><b>Flooding:</b> Compare elevations of WWTP assets and the pumping station to the base flood elevations associated with the Natchaug River and Willimantic River plus applicable freeboard (likely two feet); and determine if funds should be set aside for resiliency projects.</p> <p><b>Extreme Heat:</b> Acquire generators for the Town Hall and the Community Center/Rec Center/Senior Center. Ensure that cooling centers are accessible using transit or alternate transportation options.</p> <p><b>Others:</b> Execute the FEMA BRIC Scoping Grant for Windham Water Works and determine appropriate next steps for climate resiliency strategies, whether related to sediment removal, dam and intake modifications, or other needs.</p>

# SHOPPING FROM HAZARD MITIGATION PLANS

- How to shop from actions



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
Community	Action Number	Hazard Mitigation and Climate Adaptation Actions	Hazard Mitigation and Climate Adaptation Goal	Type of Action	Responsible Department	Approximate Cost Range	Potential Funding Sources	Timeframe	Community Priority	Permittable	Equitable	Realistic	Safe	Innovative	Scientific	Transferable	Sustainable	Total PERISTS Score	Social Benefit	Technical Benefit	Technical Cost	Administrative Cost	Political Benefit	Political Cost	Legal Benefit	Legal Cost	Economic Benefit	Economic Cost	Environmental	Environmental Cost	Total STAPLEE Score	Column1		
Bozrah	BZ1	Pursue the American Red Cross-certification to make Fields Memorial School the primary shelter and a cooling center, and additional certifications if needed for the back-up shelters which include both Bozrah Moose Lodge 950 (alternate shelter) and the Volunteer Fire Company.	Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.	Preparedness & Emergency Response	Office of the Chief Elected Official	\$50,000 - \$100,000	Municipal Operating Budget	7/2023 - 6/2025	High	3	3	3	3	0	0	2	2	16	2	0	1	0	1	1	1	0	1	0	0	1	0	0	4	64
Bozrah	BZ2	Acquire standby power for Town Hall and Senior Center, especially given their importance as cooling centers; and secure reliable transportation options for people to access these cooling centers.	Ensure that critical facilities are resilient, with special attention to shelters and cooling centers.	Preparedness & Emergency Response	Office of the Chief Elected Official	\$100,000 - \$500,000	FEMA HMA; Other Preparedness Grants; STEAP	7/2023 - 6/2025	High	3	3	3	3	0	0	2	2	16	2	0	2	0	1	1	1	0	1	0	0	1	0	0	6	96
Bozrah	BZ3	Partner with chicken farms and related facilities to develop reliable, drought-resilience water supplies and standby power that is capable of operating cooling equipment.	Address risks associated with extreme heat events, especially as they interact with other hazards.	Preparedness & Emergency Response	Office of the Chief Elected Official	\$100,000 - \$500,000	USDA/NRCS; STEAP	7/2023 - 6/2026	High	3	2	3	3	1	1	2	2	17	1	0	1	0	1	1	0	0	0	1	1	2	0	6	102	
Bozrah	BZ4	Partner with chicken farms and related facilities to develop emergency response plans that describe how to manage extreme heat events, droughts, power outages, and avian	Address risks associated with extreme heat events, especially as they interact with other hazards.	Preparedness & Emergency Response	Office of the Chief Elected Official	\$0 - \$10,000	USDA/NRCS; SCCOG funds	7/2023 - 6/2026	High	3	2	3	3	1	1	3	2	18	1	0	1	0	1	1	0	0	0	1	0	2	0	8	144	
Bozrah	BZ5	Install a snow fence along areas with snow drift related challenges including along Brush Hill Road and Wawecus Road.	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.	Structural Projects	Public Works	\$10,000 - \$25,000	Municipal CIP Budget	7/2023 - 6/2024	Low	3	2	3	3	0	0	0	3	14	1	0	1	0	1	1	0	0	0	0	1	0	0	2	28	
Bozrah	BZ5	Consider flood mitigation study along Yantic River to characterize risks to properties and Stockhouse Road.	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Property Protection	Office of the Chief Elected Official	\$50,000 - \$100,000	FEMA HMA Scoping Study; DEEP Climate Resilience Fund; CIRCA Resilient Connecticut	7/2024 - 6/2025	Low	3	2	3	3	2	2	0	3	18	1	0	1	0	1	1	0	0	0	1	1	2	0	6	108	
Bozrah	BZ7	Partner with CT DEEP's Dam Safety team to deliver a unified message to dam owners that inspections and risk communication are necessary. Target year 1 for working with DEEP and year 2 for the messaging to dam owners. Require floodplain manager and land use staff to take free	Reduce flood and erosion risks by reducing vulnerabilities and consequences, even as climate change increases frequency and severity of floods.	Preparedness & Emergency Response	Emergency Management	\$0 - \$10,000	Municipal Operating Budget	7/2023 - 6/2025	Medium	3	2	2	3	0	0	2	12	1	0	1	0	1	1	0	0	0	0	0	2	0	6	72		

Actions Funding Sources Key

# SHOPPING FROM HAZARD MITIGATION PLANS

- Funding sources listed

Acronym or Name	Description
CIRCA MRG	Connecticut Institute for Resilience and Climate Adaptation (CIRCA) Municipal Resilience Grant
CWSRF	Clean Water State Revolving Fund
DEEP Climate Resilience Fund	DEEP Climate Resilience Fund - new for 2022-2023; anticipated for 2023-2024
DWSRF	Drinking Water State Revolving Fund
EPA 319	Environmental Protection Agency (EPA) grants through Section 319 water quality programs
HHMP	Rehabilitation Of High Hazard Potential Dam Grant Program
HMA	Hazard Mitigation Assistance
BRIC	Building Resilient Infrastructure and Communities
FMA	Flood Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
IJA	Infrastructure Investment and Jobs Act
AOP	National Culvert Removal, Replacement, and Restoration Grants (Culvert AOP Program)
BIP	Bridge Investment Program
BBFP	Buses and Bus Facilities Program
RFPBR	Restoring Fish Passage through Barrier Removal Grants - may have been 2022 only
SLCGP	State and Local Cybersecurity Grant Program
LISFF	Long Island Sound Futures Fund
LOTICIP	Local Transportation Capital Improvement Program
Municipal CIP Budget	Municipal Capital Improvement Program or equivalent local program
Municipal Operating Budget	Staff time or operational budgets
NOAA/NFWF	National Oceanic and Atmospheric Administration (NOAA) grants administered by the National Fish and Wildlife Foundation
NPU	Norwich Public Utilities
Save the Sound	Save the Sound is a resource for partnering to seek grant funds; Save the Sound also has some funding available
seCTer	Southeastern Connecticut Enterprise Region
SHPO	State Historic Preservation Office
STEAP	Small Town Economic Assistance Program
Transit District	The local transit district (this can vary from community to community, such as Southeast or Windham Region)
USDA/NRCS	U.S. Department of Agriculture Natural Resources Conservation Service
WWW	Windham Water Works

## LESSONS LEARNED

- ✓ Go from a “plan we have to have” to “a plan that could *maybe possibly* be more useful”
- ✓ Having conversations that communities feel they cannot tackle because of the timeframe
- ✓ Lean on the plan more when looking to integrate information with other plans
- ✓ Setting communities up for additional funding sources

# ACKNOWLEDGMENTS



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# QUESTIONS?



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