Appendix B: Regional Workshop Materials

HAZARD MITIGATION PLAN UPDATE

4th Edition:

A New Hazard Mitigation and Climate Adaptation Plan (HMCAP) for the Capitol Region of Connecticut

CRCOG

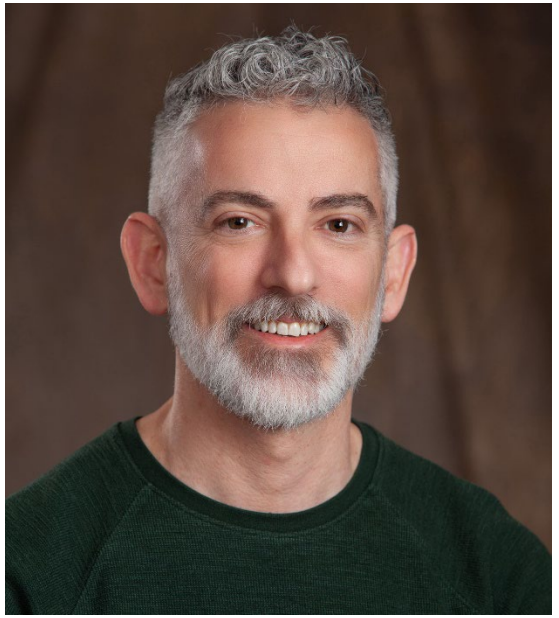
Vulnerability and Risk Assessment Workshop
July 24, 2023

CIRCA
Connecticut Institute for Resilience and Climate Adaptation

MEET YOUR PLANNING TEAM

Mary Buchanan, PhD
Community Resilience Planner

Nicole Govert, MS
Community Resilience Planner



David Murphy, PE, CFM
Director of Resilience Engineering

CIRCA
Connecticut Institute for Resilience and Climate Adaptation

The Connecticut Institute for Resilience and Climate Adaptation (CIRCA) is serving as the contractor to CRCOG to update this plan and expand the scope into a Hazard Mitigation and Climate Adaptation Plan (HMCAP)

AGENDA

- Background on the HMCAP and *Resilient Connecticut*
- Recap of “What We Heard” in May, June, and July
- Jeopardy!
- Vulnerability and Risk Assessment Progress
- Climate-Driven Risks
- *Resilient Connecticut* Vulnerability Assessment Progress
- HMCAP Next Steps

BACKGROUND ON HMCAP AND *RESILIENT CONNECTICUT*

Photo by Town of Manchester

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Goal of Disaster Mitigation Act of 2000

- Promote hazard mitigation *actions* to *reduce losses*

Eligibility for Three Primary Hazard Mitigation Assistance (HMA) Grant Programs

- Building Resilient Infrastructure and Communities (BRIC)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)

- Next opportunity for BRIC and FMA grant applications will be fall 2023
- The new DEEP Climate Resilience Fund (DCRF) asks if the application is related to actions in the Hazard Mitigation Plan, demonstrating expanded uses for these plans

This is the Region's 4th Plan

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is a Natural Hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources.

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.

WHICH HAZARDS DO WE ADDRESS?

Extreme and Severe Storms

- Hurricanes and Tropical Storms
- Tornadoes and High Wind Events
- Severe Winter Storms

Sea Level Rise

- Tidal Connecticut River Flooding

Changing Precipitation

- Riverine and Pluvial Floods
- Droughts
- Dam Failure

Rising Temperature

- Extreme Heat
- Wildfires

Earthquakes

- Not affected by climate change, but addressed in the plan as always

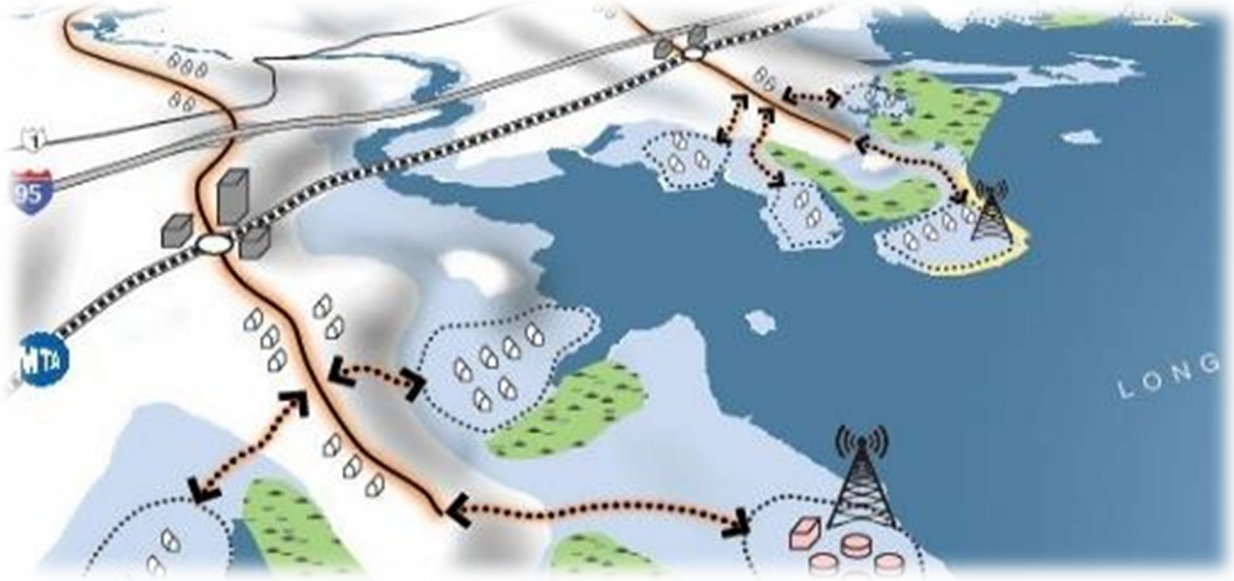
WHAT IS THE *RESILIENT CONNECTICUT* PROGRAM?

Resilient Connecticut 1.0 was funded by the National Disaster Resilience Competition and focused on regional resilience and adaptation planning for flooding and extreme heat in Fairfield and New Haven Counties.

- Emphasized transit-oriented development, affordable housing, critical infrastructure, and regional assets.
- Developed Social Vulnerability Index (SVI), Climate Change Vulnerability Index (CCVI), Zones of Shared Risks (ZSR), and Resilience Opportunity Areas (ROARs)

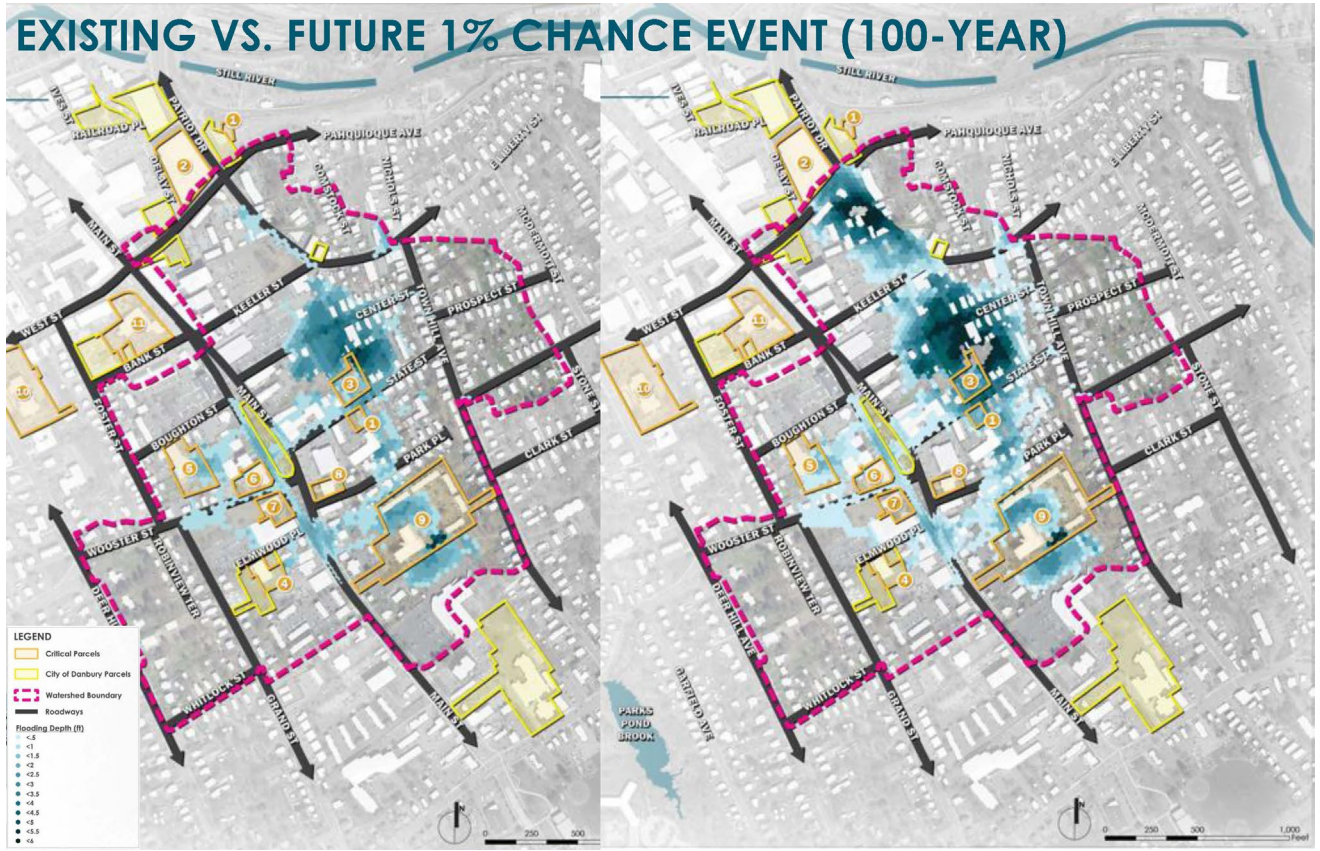
Resilient Connecticut 2.0 extends this effort using State funds.

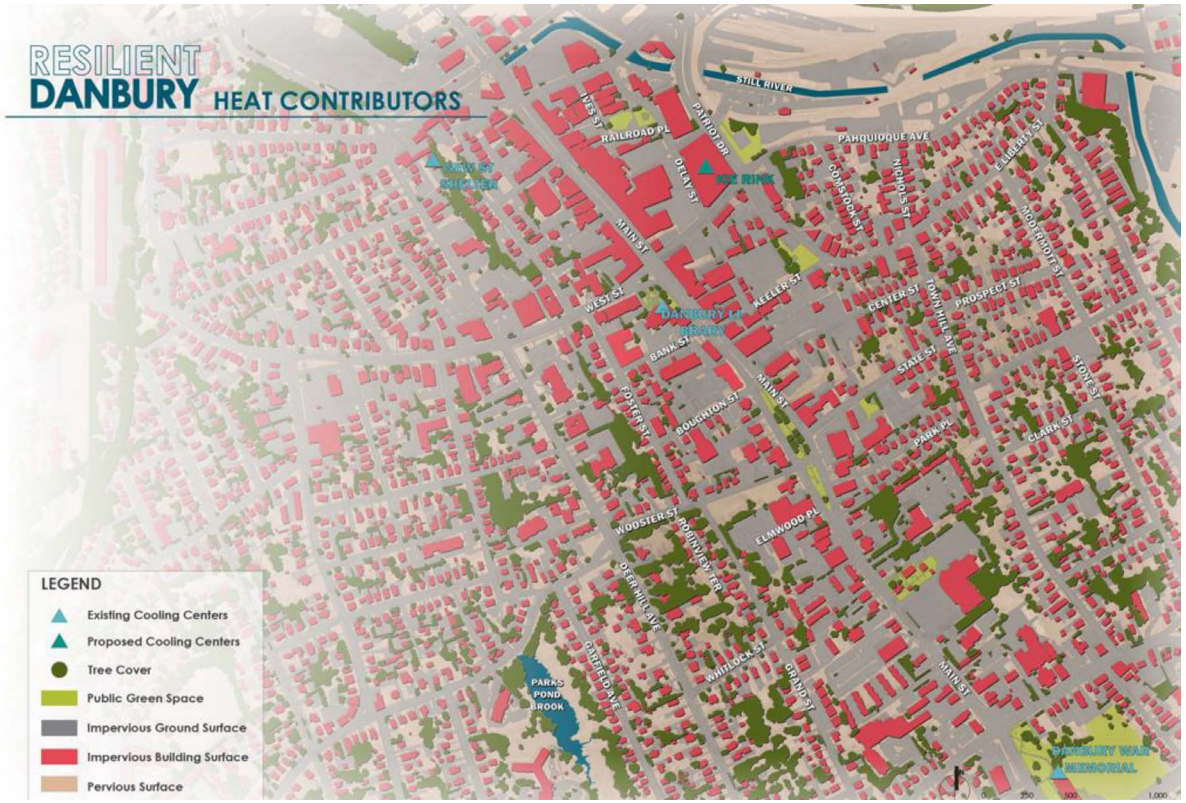
- Increases flexibility to address the climate concerns unique to other regions.
- CRCOG is an active partner in the deployment of the program in central Connecticut



WHAT IS THE *RESILIENT CONNECTICUT* PROGRAM?

- Some of you will get a study and concept design to address flooding and/or extreme heat





COMBINING PROGRAMS TO BENEFIT THE REGION

Hazard Mitigation Plan Update

Through the Hazard Mitigation Plan, CRCOG and CIRCA:

- ***engage*** with municipalities 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:

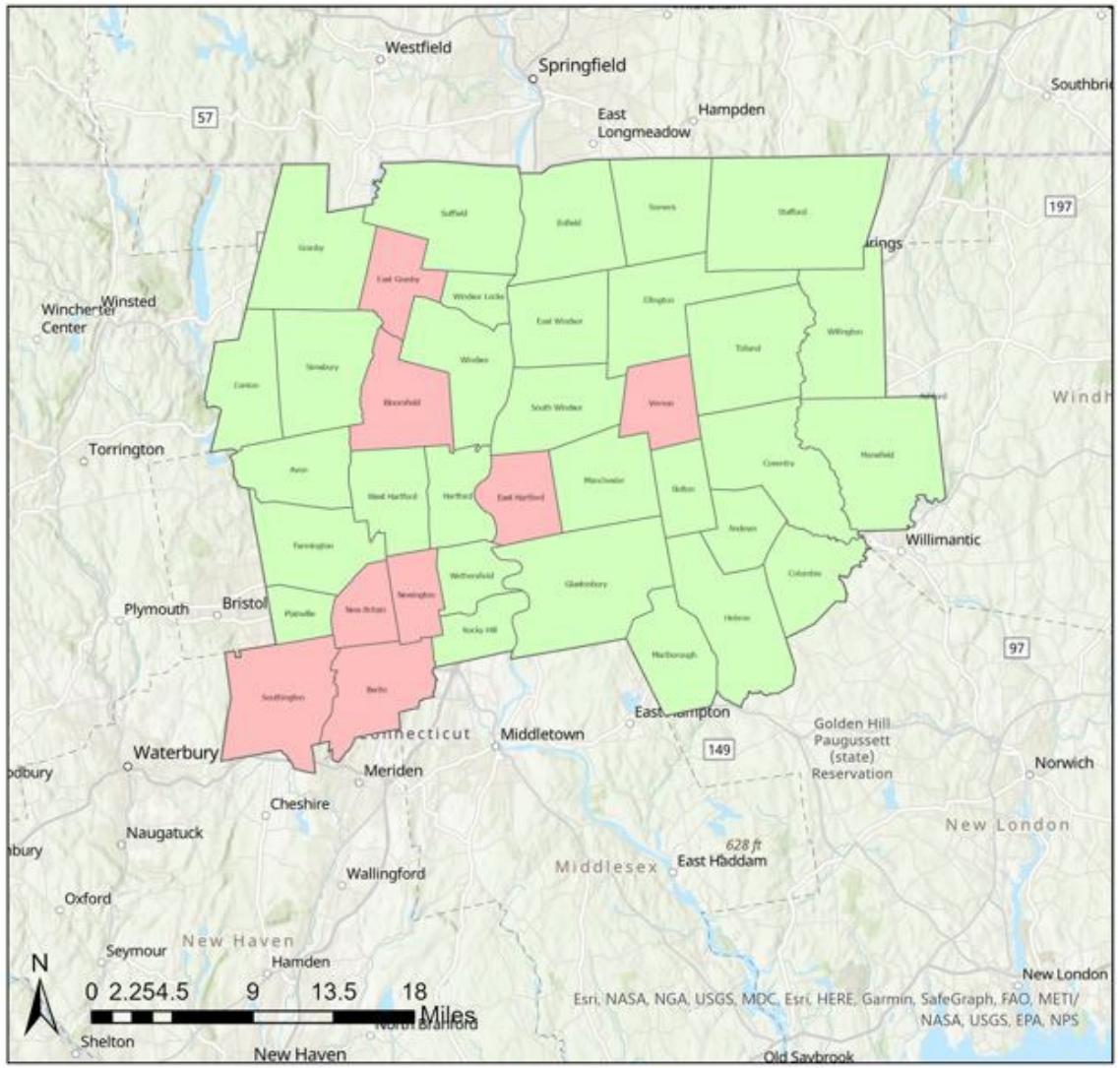
- ***engage*** with municipalities to identify concerns and priorities
- ***assess*** community vulnerabilities and assets
- ***identify*** opportunities for increased resilience
- ***develop*** pilot projects to directly fund

A Combined Hazard Mitigation and Climate Adaptation Plan for the Capitol Region

RECAP OF VULNERABILITIES AND RISKS WE HEARD ABOUT IN MAY, JUNE, AND JULY 2023

West Hartford - Photo by Murphy

Have you met with CIRCA? If not, please contact us to meet before mid-August



CRCOG
CAPITOL REGION COUNCIL OF GOVERNMENTS

CIRCA
Connecticut Institute for Resilience and Climate Adaptation

FEEDBACK ABOUT VULNERABILITIES AND RISKS

Met with 30 municipalities in May, June, and July 2023

- Reviewed Hazard Mitigation Plan actions to learn status and think about which can be channeled into resilience projects
- Asked about concerns related to flooding, erosion, extreme heat, and combinations
- Asked about unique concerns beyond the typical confines of a hazard mitigation plan

"What are your climate-related concerns?"

- Stream crossings
- Power outages during storms
- Tree management
- Riverbank stabilization
- Sewer infrastructure (treatment, pumping, conveyance)
- Stormwater collection and conveyance
- Generators for critical facilities
- Algal blooms in lakes
- DEEP-owned and privately-owned dams
- Elderly and vulnerable populations
- Agriculture
- Private wells

Jeopardy Game

VULNERABILITY AND RISK ASSESSMENT PROGRESS

Plainville acquisitions photo by Murphy

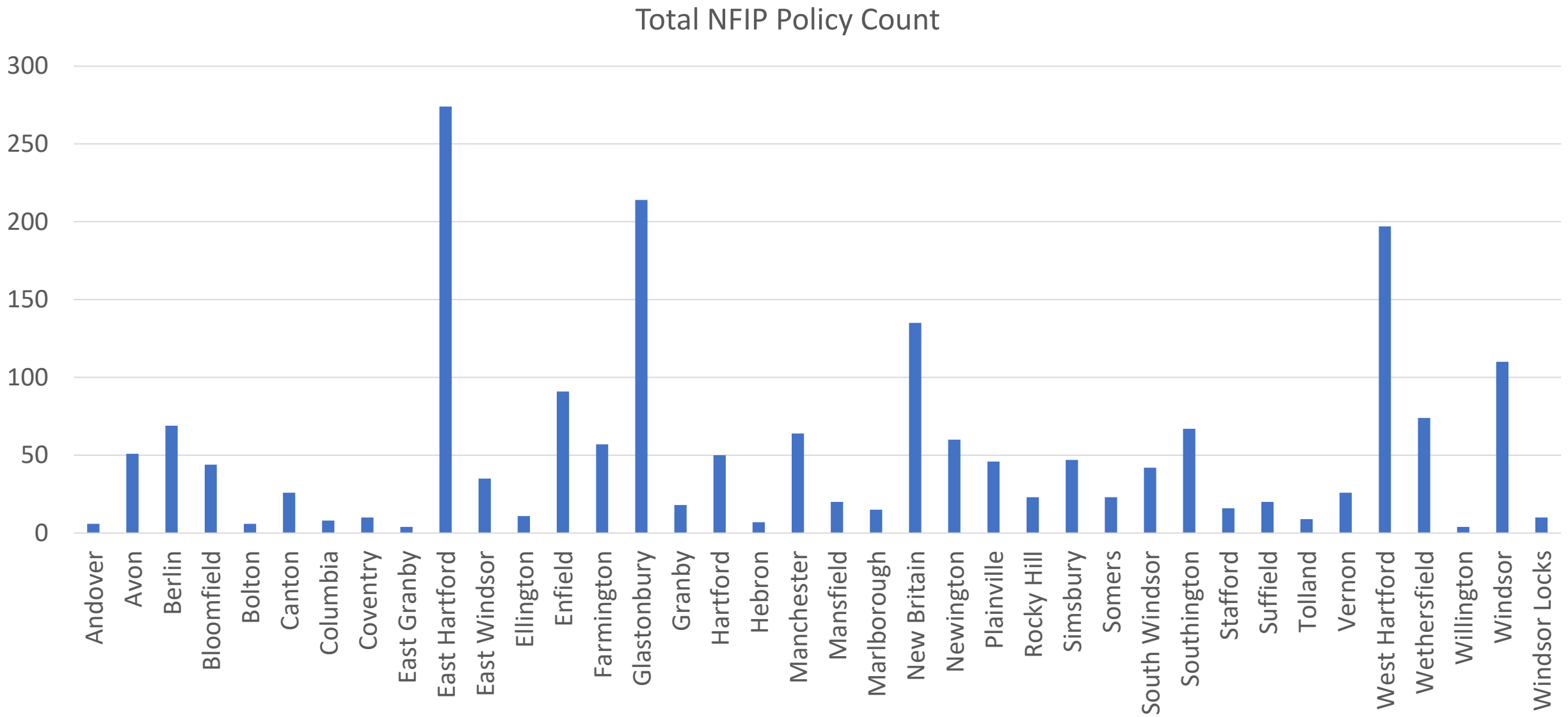
LOSS ESTIMATES ARE THE PRIMARY TOOL

- **National Flood Insurance Program (NFIP)**
  - FEMA-managed residential and commercial flood insurance program
- **FEMA Declarations and Public Assistance (PA) funds**
  - Federal public assistance program to provide grants to state, tribal, territorial and local governments after a declared major disaster or emergency
  - Flood, hurricane, severe winter storm, tornadoes, COVID-19
- **National Centers for Environmental Information (NCEI)**
  - a database compiled from trained spotters and media reports
  - All sort of severe weather events and floods
- **HAZUS Loss Estimation Tool**
  - FEMA-developed losses for hurricane winds, floods, and earthquakes
- **United States Department of Agricultural (USDA)**
  - Reimbursements for droughts, late freeze events, severe weather, etc.

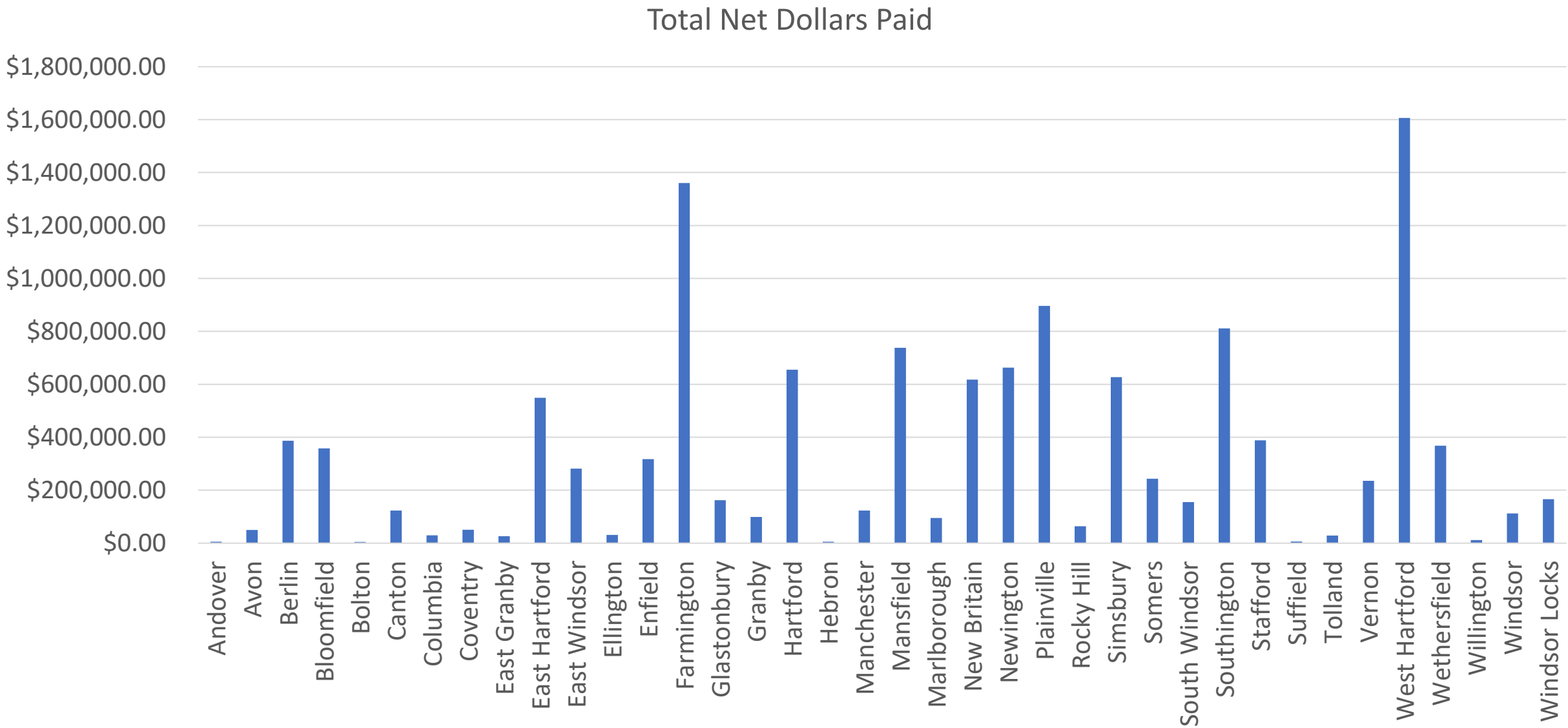
NFIP Policies & Claims

Community Name	Total Policy Count	Total Net Dollars Paid
Andover	6	$4,980.94
Avon	51	$49,971.57
Berlin	69	$386,299.00
Bloomfield	44	$357,724.61
Bolton	6	$3,989.54
Canton	26	$122,853.58
Columbia	8	$29,366.59
Coventry	10	$50,395.47
East Granby	4	$26,000.00
East Hartford	274	$548,814.67
East Windsor	35	$281,501.59
Ellington	11	$30,868.06
Enfield	91	$317,010.63
Farmington	57	$1,360,495.36
Glastonbury	214	$161,876.64
Granby	18	$98,904.16
Hartford	50	$655,232.50
Hebron	7	$5,043.26
Manchester	64	$123,062.48
Mansfield	20	$737,999.50
Marlborough	15	$94,531.31
New Britain	135	$617,749.27
Newington	60	$662,517.80
Plainville	46	$896,035.15
Rocky Hill	23	$63,605.77
Simsbury	47	$627,167.36
Somers	23	$243,412.27
South Windsor	42	$155,156.63
Southington	67	$810,952.93
Stafford	16	$388,307.61
Suffield	20	$5,733.52
Tolland	9	$28,888.40
Vernon	26	$235,232.67
West Hartford	197	$1,606,352.42
Wethersfield	74	$367,875.24
Willington	4	$11,233.89
Windsor	110	$112,236.37
Windsor Locks	10	$165,655.06
Totals:	**1,989**	**$12,445,033.82**

NFIP Policies & Claims



NFIP Policies & Claims



Repetitive Loss Properties

Municipality	Total Payments as 2017	Average Payments as of 2017	Losses (#) as of 2017	Type of Property	Total Payments as of 2023	Losses (#) as of 2023	Type of Property
Avon	$45,197.04	$18,879.27	7	3-R	$45,552.81	7	3-R
Berlin	$251,540.07	$74,948.84	19	3-R, 3-N	$280,033.85	20	2-R, 4-N
Bloomfield	$70,725.50	$23,575.17	9	3-R	$92,004.94	13	5-R
Canton	$96,102.79	$37,551.79	18	6-R, 1-N	$96,102.79	18	6-R, 1-N
Columbia	$8,425.54	$4,212.77	2	0-R, 1-N	$10,748.20	2	1-N
East Hartford	$228,580.33	$83,716.53	17	4-R, 2-N	$186,433.17	16	4-R, 1-N
Enfield	$169,139.71	$60,960.28	15	6-R	$169,139.71	15	6-R
Farmington	$813,364.66	$121,062.31	20	5-R, 1-N	$817,412.23	20	4-R, 2-N
Granby	$23,044.62	$5,761.16	4	0-R, 1-N	$23,044.62	4	1-N
Hartford	$117,755.39	$30,295.89	11	2-R, 1-N	$153,194.80	11	1-R, 2-N
Manchester	$43,203.94	$21,601.97	4	1-R, 1-N	$43,203.94	4	1-R, 1-N
Mansfield	$492,085.99	$55,835.40	29	4-R	$552,507.58	31	4-R
Marlborough	$6,400.66	$3,200.33	2	1-R	$6,400.66	2	1-R
New Britain	$264,339.87	$117,133.19	35	13-R, 1-N	$324,849.85	40	14-R, 1-N
Newington	$643,554.83	$226,941.07	17	2-R, 3-N	$694,499.08	18	1-R, 4-N
Plainville	$319,075.23	$113,507.33	23	6-R, 1-N	$218,280.33	21	5-R, 1-N
Rocky Hill	$43,427.21	$14,475.74	3	1-R	$44,350.16	3	1-R
Simsbury	$389,198.48	$94,267.75	46	11-R	$534,934.70	48	11-R
South Windsor	$82,255.15	$16,183.71	8	1-R, 1-N	$82,255.15	8	1-R, 1-N
Southington	$541,025.91	$176,881.24	30	8-R, 2-N	$570,999.51	32	8-R, 2-N
Stafford	N/A	N/A	N/A	N/A	$39,628.32	2	1-R
Tolland	N/A	N/A	N/A	N/A	$6,063.45	2	1-R
Vernon	$92,732.28	$30,978.38	11	2-R, 2-N	$175,237.59	14	2-R, 2-N
West Hartford	$677,684.27	$220,281.56	89	33-R	$1,075,484.71	114	37-R
Wethersfield	$36,531.36	$17,305.15	11	5-R	$85,826.92	15	7-R
Windsor	$31,638.42	$15,819.22	4	2-R	$31,638.42	4	2-R
Windsor Locks	$11,877.85	$5,938.93	2	1-R	$11,877.85	2	1-R

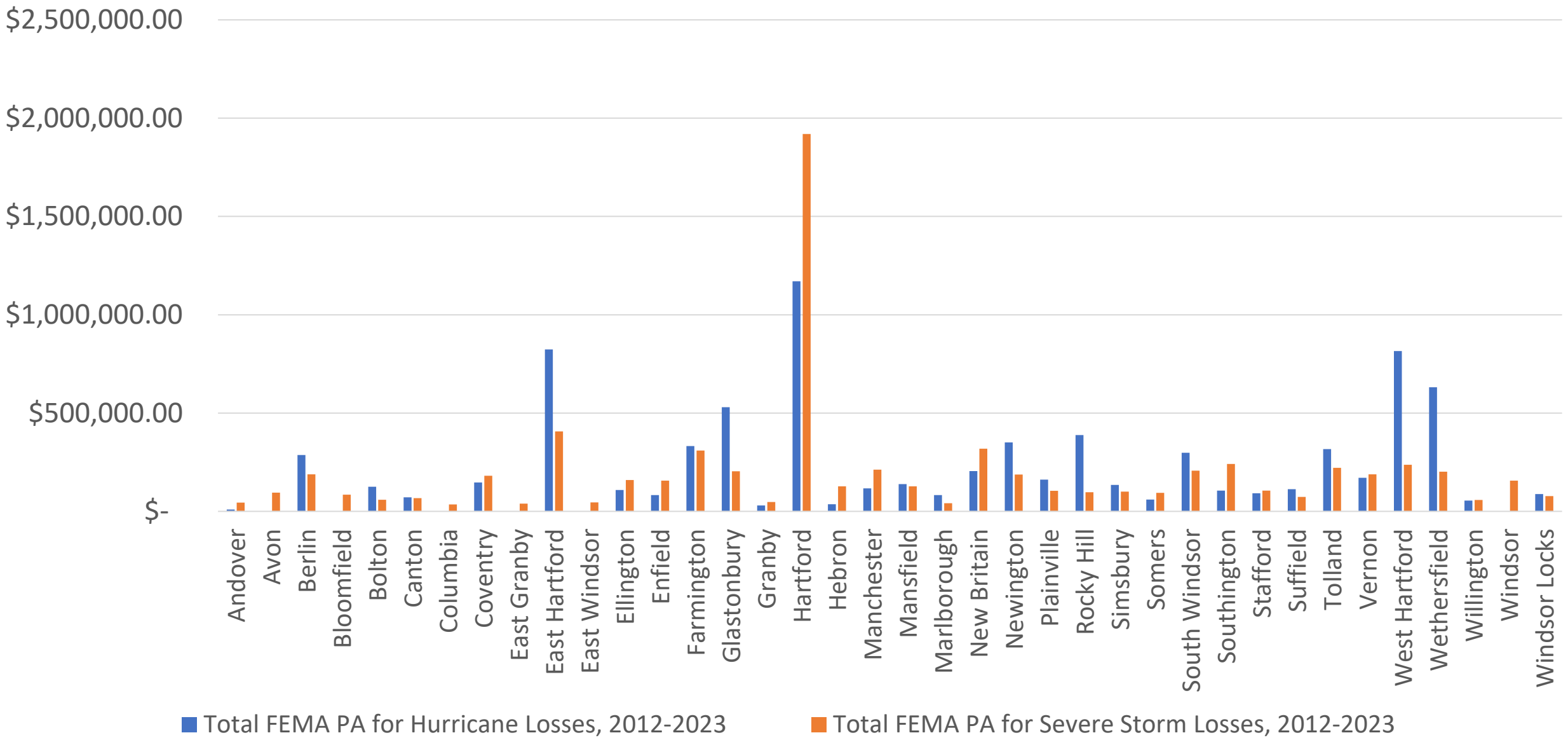
FEMA EM and Disaster Declarations

Disaster Number	Year	Incident Period	Disaster Type	Counties	CRCOG Region?
DR-4629	2021	September 1-2	Remnants of Hurricane Ida	Litchfield, Fairfield, New Haven, Middlesex, and New London	No
EM-3564	2021	August 21-24	Hurricane Henri	All	Yes
DR-4580 & EM-3535	2020	August 4	Tropical Storm Isaias	All	Yes
DR-4500 & EM-3439	2020	January 20, 2020 - May 11, 2023	COVID-19 Pandemic	All	Yes
DR-4410	2018	September 25-26	Severe Storms and Flooding	Middlesex and New London	No
DR-4385	2018	May 15	Severe Storms, Tornadoes, and Straight-line Winds	Fairfield, New Haven	No
DR-4213	2015	January 26-29	Severe Winter Storm and Snowstorm	New Haven, New London, Tolland, and Windham	Yes (part)
DR-4106 & EM-3361	2013	February 8-11	Severe Winter Storm and Snowstorm	All	Yes
DR-4087 & EM-3353	2012	October 27-November 8	Hurricane Sandy	Litchfield, Fairfield, New Haven, Middlesex, New London, Windham, and Tolland	Yes (part)
DR-4046 & EM-3342	2011	October 29-30	Severe Storm	Litchfield, Fairfield, New Haven, Middlesex, Windham, Tolland, and Hartford	Yes
DR-4023 & EM-3331	2011	August 27-September 1	Tropical Storm Irene	All	Yes

FEMA Public Assistance Losses

Town	Total FEMA PA for Hurricane Losses, 2012-2023	Total FEMA PA for Severe Storm Losses, 2012-2023
Andover	$ 9,002.15	$ 44,070.43
Avon	$ -	$ 95,408.32
Berlin	$ 286,017.10	$ 188,065.78
Bloomfield	$ -	$ 85,028.83
Bolton	$ 124,686.65	$ 58,531.19
Canton	$ 71,361.20	$ 66,740.72
Columbia	$ -	$ 35,116.84
Coventry	$ 147,038.50	$ 180,627.65
East Granby	$ -	$ 39,608.97
East Hartford	$ 823,102.58	$ 406,921.56
East Windsor	$ -	$ 45,338.31
Ellington	$ 108,089.99	$ 158,739.61
Enfield	$ 82,662.85	$ 156,220.81
Farmington	$ 331,625.46	$ 308,977.58
Glastonbury	$ 530,088.08	$ 203,726.79
Granby	$ 29,568.18	$ 47,459.24
Hartford	$ 1,170,120.45	$ 1,919,404.89
Hebron	$ 36,253.94	$ 126,612.91
Manchester	$ 116,597.60	$ 211,914.59
Mansfield	$ 138,148.10	$ 127,169.54
Marlborough	$ 82,532.21	$ 41,612.25
New Britain	$ 205,062.78	$ 318,897.49
Newington	$ 350,277.16	$ 187,077.08
Plainville	$ 161,533.40	$ 104,497.41
Rocky Hill	$ 388,227.25	$ 96,702.71
Simsbury	$ 134,068.98	$ 100,060.47
Somers	$ 60,322.38	$ 93,974.03
South Windsor	$ 297,882.77	$ 206,528.25
Southington	$ 105,367.37	$ 241,057.07
Stafford	$ 92,197.97	$ 105,374.90
Suffield	$ 112,984.29	$ 73,624.58
Tolland	$ 316,959.76	$ 221,555.80
Vernon	$ 170,292.59	$ 187,915.47
West Hartford	$ 815,299.40	$ 236,587.85
Wethersfield	$ 631,156.07	$ 202,037.04
Willington	$ 54,788.04	$ 58,138.20
Windsor	$ -	$ 155,619.79
Windsor Locks	$ 87,420.44	$ 77,834.40
Hartford County, misc.	$ -	$ 9,744.00

FEMA PA Losses



Tropical Storms of 2021

MATCHING STORMS
4

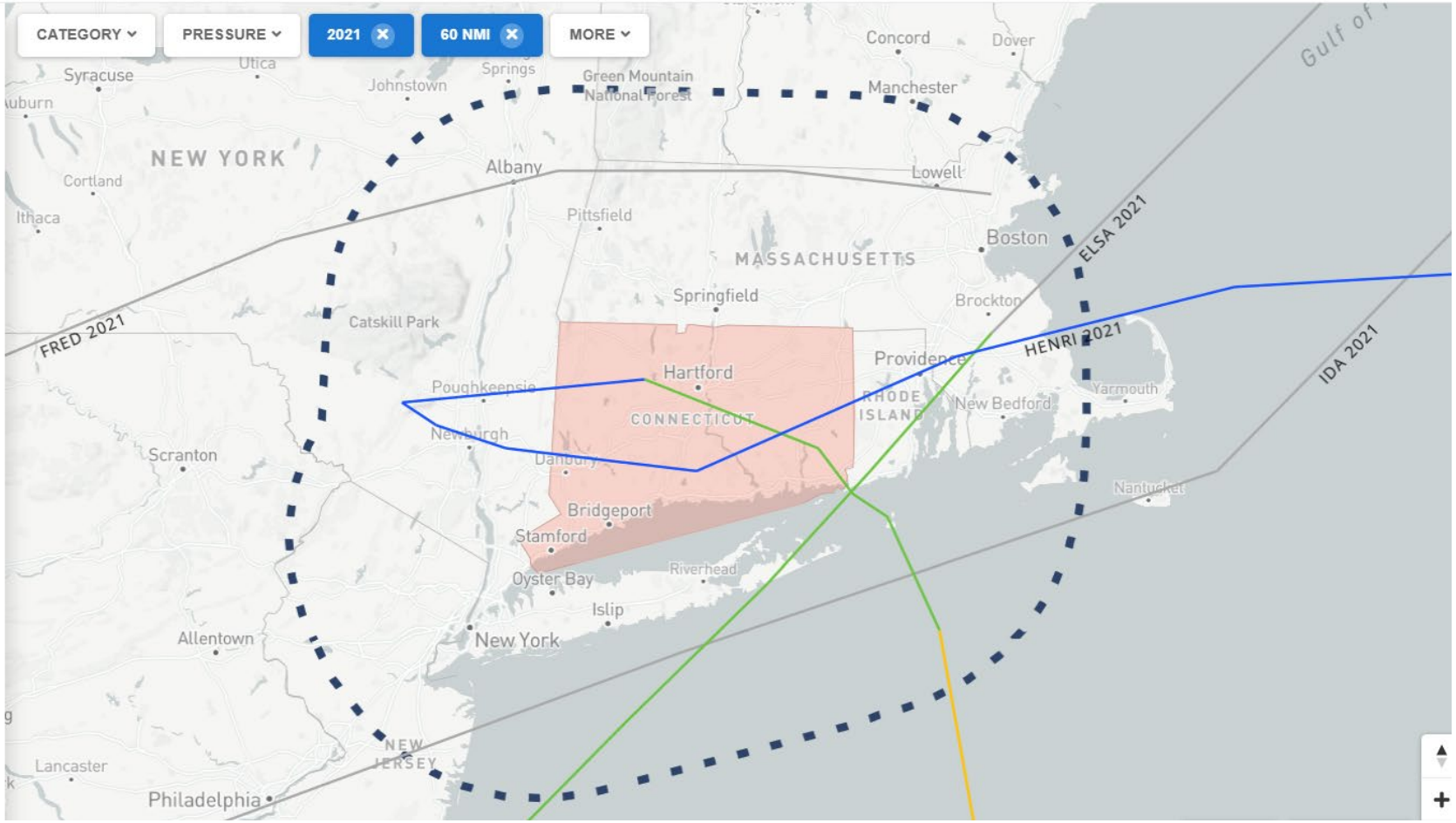
SORTED BY
Year (Newest)

HURRICANE
IDA 2021
Aug 26, 2021 to Sep 04, 2021

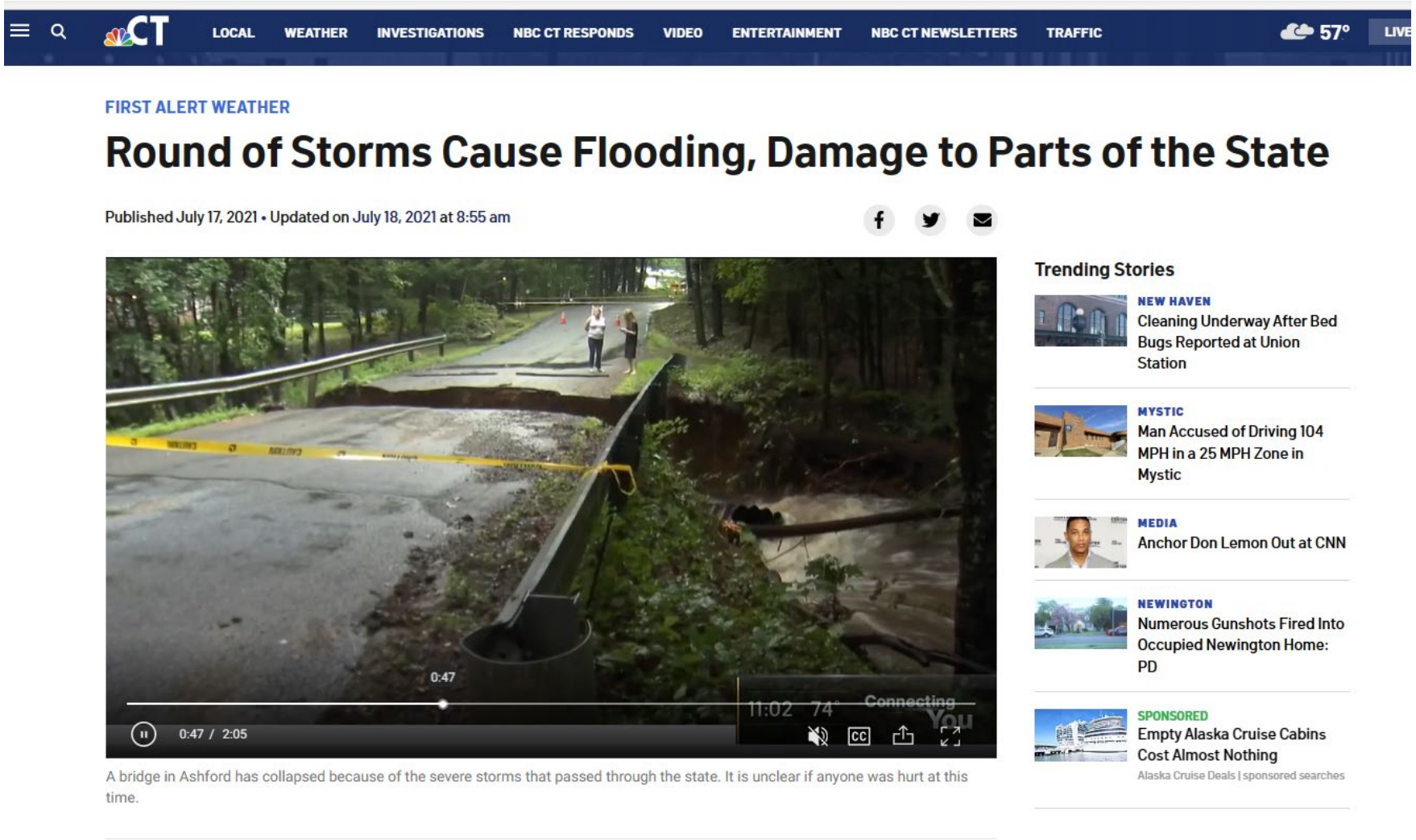
HURRICANE
HENRI 2021
Aug 15, 2021 to Aug 24, 2021

TROPICAL STORM
FRED 2021
Aug 09, 2021 to Aug 20, 2021

HURRICANE
ELSA 2021
Jun 30, 2021 to Jul 10, 2021



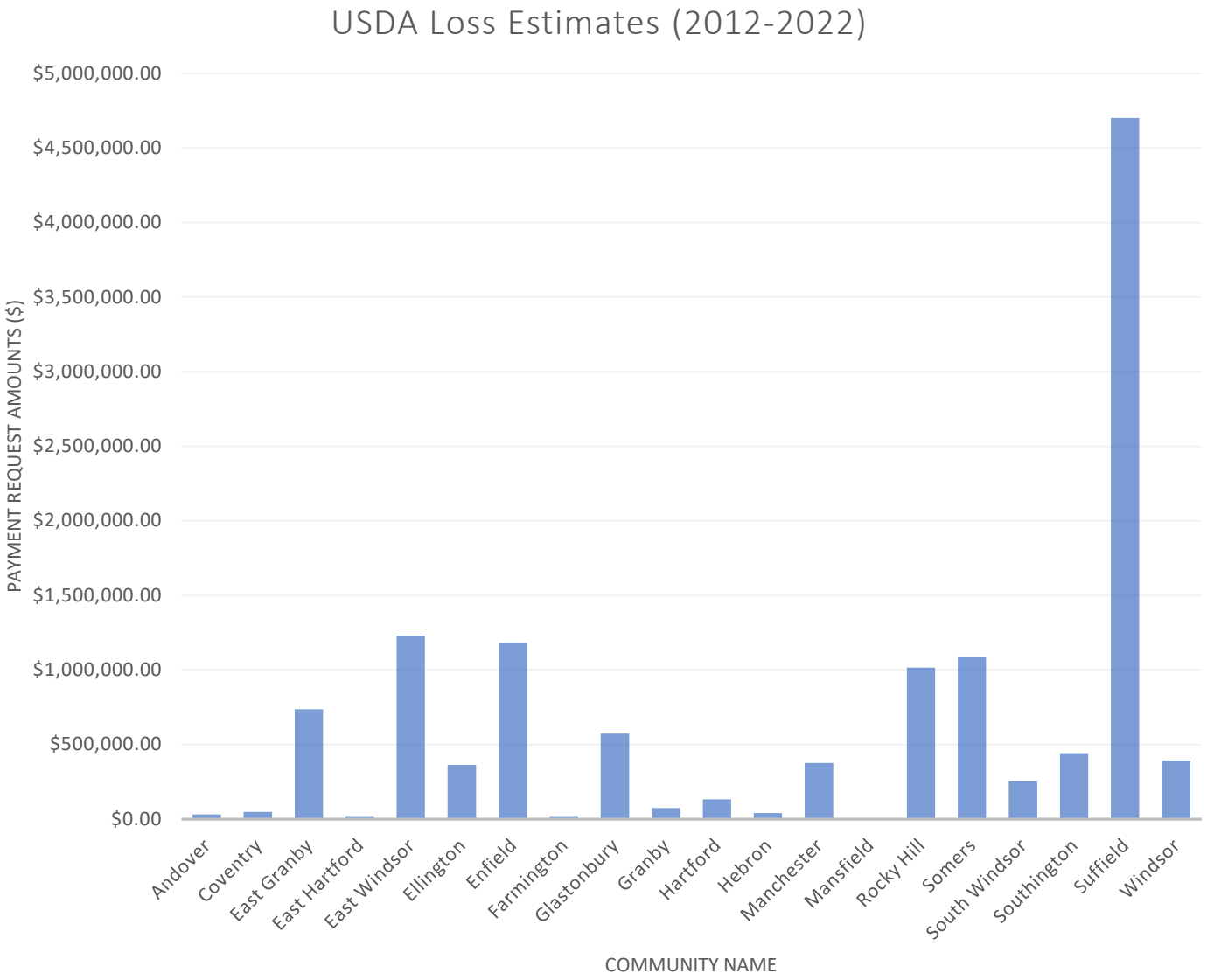
Other Recent Events



Event Type	Number of Episodes in 20 years	Loss Estimates Over 20 years	Average Loss Estimate Per Year (over 20 years)
Blizzard	1	$0	$0
Drought	18	$0	$0
Excessive Heat	4	$0	$0
Flash Flood	43	$1,495,000	$74,750
Flood	70	$13,714,000	$685,700
Funnel Cloud	1	$0	$0
Hail	122	$120,000	$6,000
Heat	2	$0	$0
Heavy Rain	4	$0	$0
Heavy Snow	72	$11,072,000	$553,600
High Wind	38	$2,443,400	$122,170
Ice Storm	1	$6,000	$300
Lightning	29	$384,000	$19,200
Strong Wind	39	$543,800	$27,190
Thunderstorm Wind	381	$9,355,700	$467,785
Tornado	9	$5,938,000	$296,900
Tropical Storm	8	$50,175,800	$2,508,790
Winter Storm	47	$3,663,000	$183,150
Winter Weather	38	$140,000	$7,000
Extreme Cold/Wind Chill	2	$0	$0
Totals:	929	$99,050,700	$4,952,535

NCEI Losses for CRCOG Region

USDA – Loss Estimates 2012-2022



Community	Payment Reques ($)
Andover	$31,531.50
Coventry	$47,629.50
East Granby	$736,078.01
East Hartford	$20,716.00
East Windsor	$1,228,779.26
Ellington	$362,298.38
Enfield	$1,180,757.00
Farmington	$19,721.50
Glastonbury	$572,504.50
Granby	$74,115.00
Hartford	$131,873.75
Hebron	$39,763.51
Manchester	$376,619.11
Mansfield	$4,728.50
Rocky Hill	$1,016,197.00
Somers	$1,085,335.33
South Windsor	$258,873.25
Southington	$442,678.26
Suffield	$4,701,568.47
Windsor	$393,398.25

USDA – 2023 Disaster Requests

Two agriculture disaster requests have been submitted by the State this year:

- Late frost
- Flooding in July

Dave Wurtzel / Connecticut Public

HAZUS – Flood Loss Estimates ($millions)

Town	Building Loss - Building	Building Loss - Content	Building Loss - Inventory	Business Interruption - subtotal	Total Loss	People Seeking Shelter
Andover	$3.57	$3.2	$0.09	$6.05	$12.91	24
Avon	$16.77	$21.21	$1.03	$30.93	$69.93	51
Berlin	$22.15	$40.74	$5.81	$85.64	$154.34	110
Bloomfield	$2.71	$4.84	$0.53	$6.78	$14.86	65
Bolton	$0.2	$0.08	$0	$0.14	$0.42	9
Canton	$35.19	$51.25	$5.81	$91.88	$184.13	46
Columbia	$4.1	$14.39	$0.21	$242.02	$260.72	13
Coventry	$2.27	$3.12	$0.38	$5.44	$11.2	25
East Granby	$2.73	$4.23	$0.24	$7.57	$14.76	17
East Hartford	$11.72	$17.22	$2.79	$39.73	$71.45	292
East Windsor	$10.67	$18.84	$1.78	$31.08	$62.37	64
Ellington	$3.55	$4.62	$0.24	$11.34	$19.75	31
Enfield	$10.01	$17.51	$1.27	$22.62	$51.41	124
Farmington	$101.18	$142.19	$13.92	$198.47	$455.77	215
Glastonbury	$14.16	$20.57	$1.78	$27.77	$64.28	121
Granby	$8.89	$16.22	$1.02	$33.97	$60.11	48
Hartford	$77.04	$237.46	$15.02	$531.47	$860.98	1270
Hebron	$1.68	$2.69	$0.04	$10.68	$15.09	7
Manchester	$1.97	$10.75	$0.74	$31.73	$45.18	219
Mansfield	$9.49	$13.74	$2.47	$25.62	$51.32	143
Marlborough	$1.69	$1.71	$0.09	$3.24	$6.73	8
New Britain	$18.61	$40.52	$4.46	$162.41	$226.01	270
Newington	$1.02	$1.41	$0.11	$4.51	$7.05	83
Plainville	$8.51	$17.99	$3.57	$37.93	$68	92
Rocky Hill	$17.43	$31.23	$7.86	$18.41	$74.92	6
Simsbury	$42.57	$72.28	$5.13	$129.11	$249.1	78
Somers	$6.37	$12.35	$3.5	$26.98	$49.19	39
South Windsor	$13.36	$17.1	$0.6	$39.77	$70.82	75
Southington	$59	$139.46	$18.89	$221.53	$438.88	286
Stafford	$24.66	$53.21	$18.34	$62.71	$158.92	74
Suffield	$5.54	$4.9	$0.26	$8.87	$19.57	33
Tolland	$3.43	$3.38	$0.37	$6.32	$13.5	28
Vernon	$22.24	$54.26	$7.98	$97.07	$181.55	218
West Hartford	$31.81	$31.07	$2.01	$46.83	$111.72	175
Wethersfield	$7.51	$10.12	$0.41	$8.63	$26.66	136
Willington	$1.43	$2.67	$0.32	$3.81	$8.23	14
Windsor	$16.73	$18.84	$0.76	$31.67	$68.01	142
Windsor Locks	$2.15	$4.87	$1.15	$4.82	$12.99	8

HAZUS – Hurricane Loss Estimates ($thousands)

Town	Property Damage - Building	Property Damage - Content	Property Damage - Inventory	Business Interruption Loss - subtotal	Total Loss	People Seeking Shelter
Andover	$3013.4	$305.8	$1.74	$171.06	$3,492.00	0
Avon	$30863.99	$15041.38	$14.93	$896.78	$46817.07	3
Berlin	$23831.23	$2682.27	$162.1	$2035.86	$28711.46	5
Bloomfield	$15881.85	$1399.99	$97.38	$1169.08	$18548.31	5
Bolton	$4005.26	$396.37	$10.77	$278.42	$4690.82	1
Canton	$10834.19	$4924.17	$10.56	$493.31	$16262.23	1
Columbia	$5840.69	$644.59	$9.71	$394.36	$6889.35	1
Coventry	$11215.85	$1109.94	$13.91	$720.18	$1305.88	3
East Granby	$6354.24	$2645.04	$16.26	$310.26	$9325.8	0
East Hartford	$47749.33	$7020.49	$376.34	$5971	$61117.16	34
East Windsor	$10635.12	$958.33	$71.51	$943.7	$12608.67	3
Ellington	$17826.36	$1635.37	$36.01	$1293.5	$20791.25	4
Enfield	$30069.5	$5809.66	$87.38	$2130.64	$38097.19	10
Farmington	$31358.45	$5463.81	$85.26	$2437.83	$39345.36	10
Glastonbury	$43965.6	$9016.17	$80.72	$2674.26	$55735.75	12
Granby	$11875.69	$5815.42	$6.9	$352.65	$18050.67	0
Hartford	$124149.96	$16226.03	$326.24	$19765.54	$160467.75	122
Hebron	$10540.15	$1165.67	$6.76	$556.4	$12268.99	2
Manchester	$67044.33	$12273.71	$316.26	$9143.23	$88777.54	37
Mansfield	$23034.95	$2641.78	$53.63	$5932.67	$31663.03	9
Marlborough	$6604.52	$645.82	$5.25	$349.71	$7605.31	1
New Britain	$72746.08	$9078.94	$219.34	$13135.52	$95179.89	85
Newington	$24168.06	$2676.31	$178.72	$2680.15	$29703.24	10
Plainville	$17065.09	$2563.19	$103.44	$1402.73	$21134.45	6
Rocky Hill	$24913.36	$2786.96	$123.74	$2936.92	$30760.98	9
Simsbury	$24779.16	$1261.44	$14.93	$1225.32	$36280.86	3
Somers	$12817.43	$5908.19	$18.96	$466.44	$19211.02	2
South Windsor	$27327.35	$2522.06	$131.9	$1807.84	$31789.16	7
Southington	$46381.69	$5504.14	$157.57	$3460.65	$55504.05	12
Stafford	$14758.75	$7262.92	$21.77	$638.06	$22681.49	4
Suffield	$12380.22	$2394.83	$24.17	$652.17	$15451.39	1
Tolland	$20806.41	$9627.9	$13.12	$543.21	$30990.63	2
Vernon	$29494.01	$3355.13	$42.51	$2760.8	$35652.44	15
West Hartford	$82521.13	$22664.67	$162.19	$4650.69	$109998.68	24
Wethersfield	$33946.74	$3155.29	$67.21	$3665.42	$40834.65	14
Willington	$8105.01	$4195.4	$5.66	$373.18	$12679.25	2
Windsor	$22433.41	$3605.81	$83.13	$1574.14	$27696.49	10
Windsor Locks	$10106.5	$972.08	$68.41	$1288.99	$2435.98	3

HAZUS – Earthquake Loss Estimates ($millions)

Town	Total Economic Loss	People Seeking Shelter
Andover	$89	18
Avon	$205.52	32
Berlin	$832.02	103
Bloomfield	$384.8	75
Bolton	$149.78	7
Canton	$62.83	11
Columbia	$264.4	45
Coventry	$299.06	38
East Granby	$61.47	5
East Hartford	$1426.69	472
East Windsor	$211.91	39
Ellington	$206.64	60
Enfield	$276.53	52
Farmington	$650.43	102
Glastonbury	$1485.88	323
Granby	$43.25	5
Hartford	$3151.55	1859
Hebron	$609.29	109
Manchester	$2038.1	672
Mansfield	$1244.61	362
Marlborough	$444	68
New Britain	$1631.51	976
Newington	$871.75	229
Plainville	$364.41	87
Rocky Hill	$953.31	270
Simsbury	$151.15	31
Somers	$73.43	3
South Windsor	$715.25	116
Southington	$771.97	153
Stafford	$84.95	15
Suffield	$83.52	10
Tolland	$214.99	17
Vernon	$526.27	230
West Hartford	$1189.86	298
Wethersfield	$701.02	194
Willington	$64.79	27
Windsor	$382.68	77
Windsor Locks	$176.11	25

Extreme Temperatures

- July 2018: NCEI report described a heat index of 105 to 109 in parts of Northern CT.

County	Number of days with a maximum temperature greater than 90°F (2012-2021, CDC)
Fairfield	45
Hartford	26
Litchfield	3
Middlesex	5
New Haven	10
New London	24
Tolland	6
Windham	25
State Total	**144**

Year	Heat Emergency Visits per 100,000 - CT	Hospitalizations per 100,000 – CT
2020	8.5	1.2
2019	13.8	1.3
2018	15.3	1.6
2017	10.1	1.3


STATE OF CONNECTICUT

GOVERNOR NED LAMONT

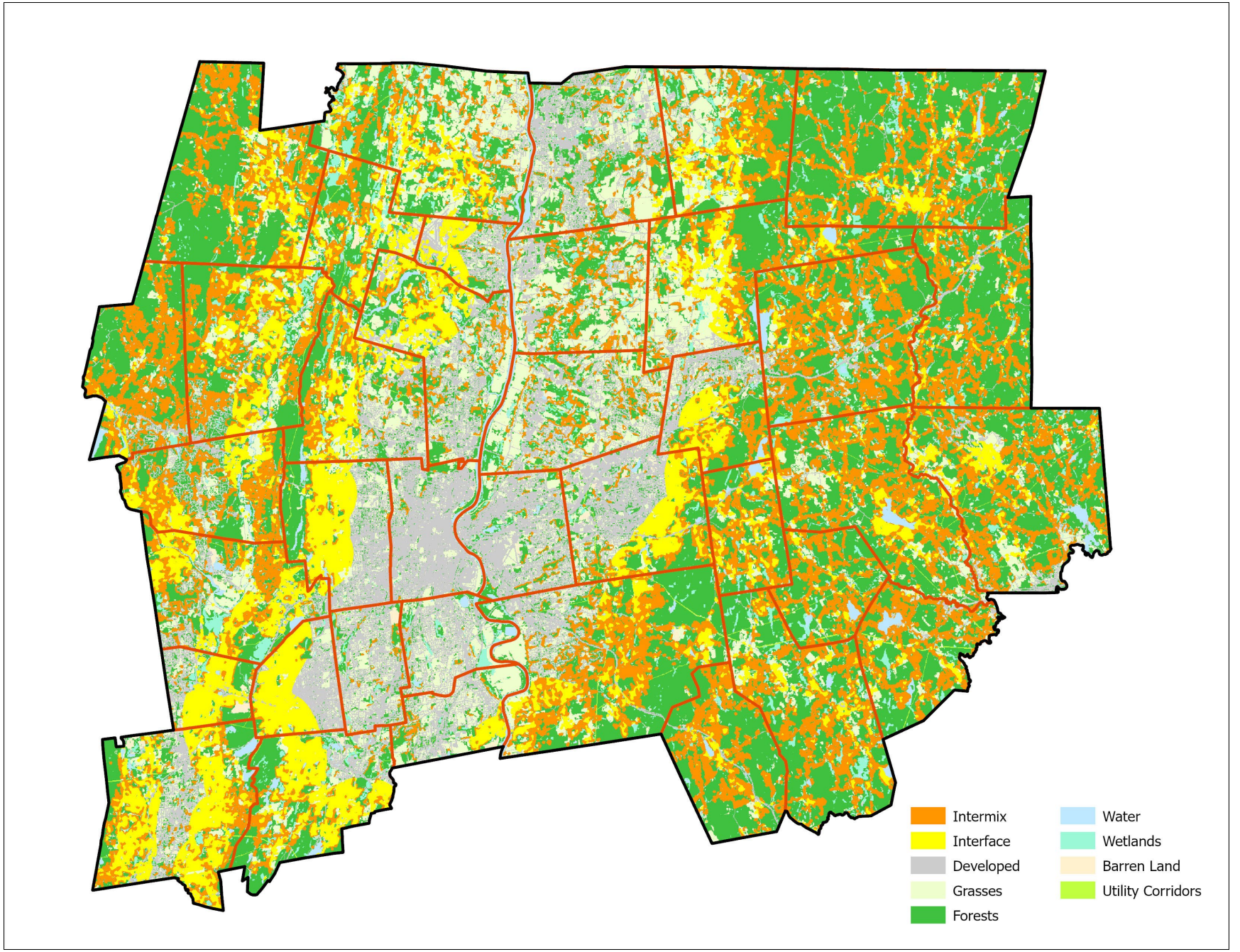
07/05/2023

Governor Lamont Activates Connecticut's Extreme Hot Weather Protocol Beginning Wednesday Afternoon

Wildfires

Much of the region, the orange and yellow areas, are at-risk of wildfires due to the vegetation type.

Those areas that are gray and green have higher density development, or vegetation types that are less at-risk.



Preliminary Results from State HMP Update

	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham
Dam Failure	Medium	Medium	Medium	Medium	Medium-High	Medium	Medium	Low
Drought	Medium	High	Medium-High	Medium	Medium-High	Medium-High	Medium	Medium
Earthquake	Medium-High	Medium	Low	Medium-Low	Medium	Low	Low	Low
Flood	High	High	Medium	Medium-Low	Medium-High	Medium-High	Low	Medium-Low
Sea Level Rise	High	Medium-Low	Low	Medium	High	Medium-High	Low	Low
Thunderstorm	High	Medium-High	Medium-High	Medium	High	High	Medium	Medium-Low
Tornado	Medium	High	High	Medium-Low	High	Low	Medium	Medium-Low
Tropical Cyclone	High	High	Medium	Medium-High	High	High	Medium	Medium-Low
Wildland Fire	Medium-Low	Medium-Low	Medium	Medium-Low	Medium	Medium	Medium-Low	Medium
Winter Weather	High	Medium-High	Medium	Medium-Low	Medium	Medium-Low	Medium	Medium-Low
Extreme Heat	High	High	Medium	Medium	High	Medium	Medium-Low	Medium-Low
Extreme Cold	High	High	Medium-High	Medium	High	Medium-High	Medium	Medium-Low

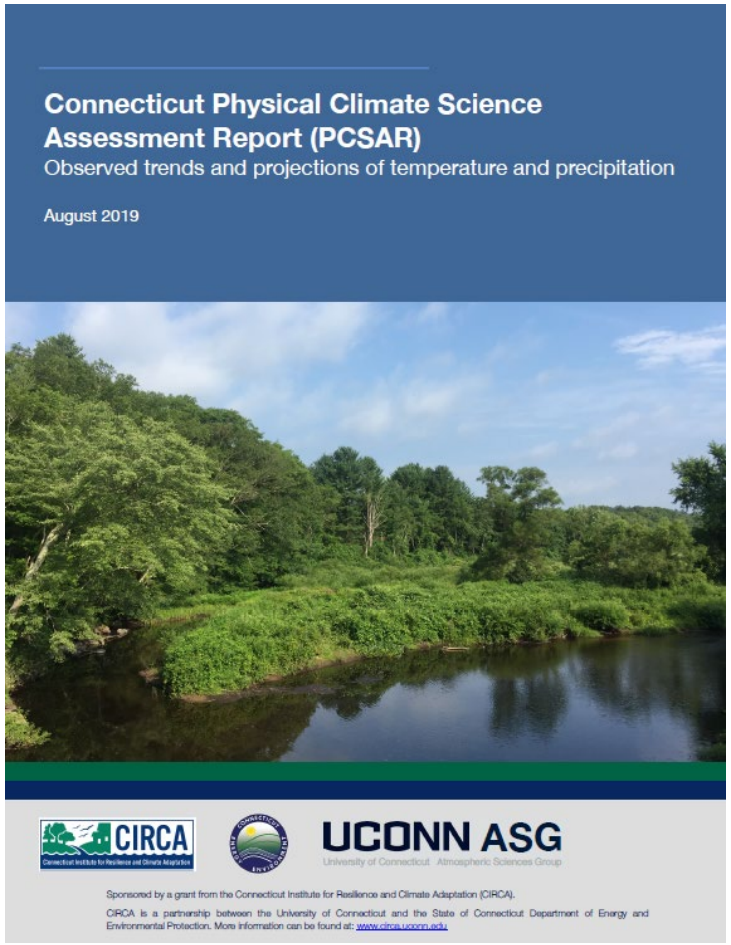
CLIMATE-DRIVEN RISKS

Photo courtesy of Town of West Hartford

CONNECTICUT CLIMATE ASSESSMENT REPORT

Describes Changes

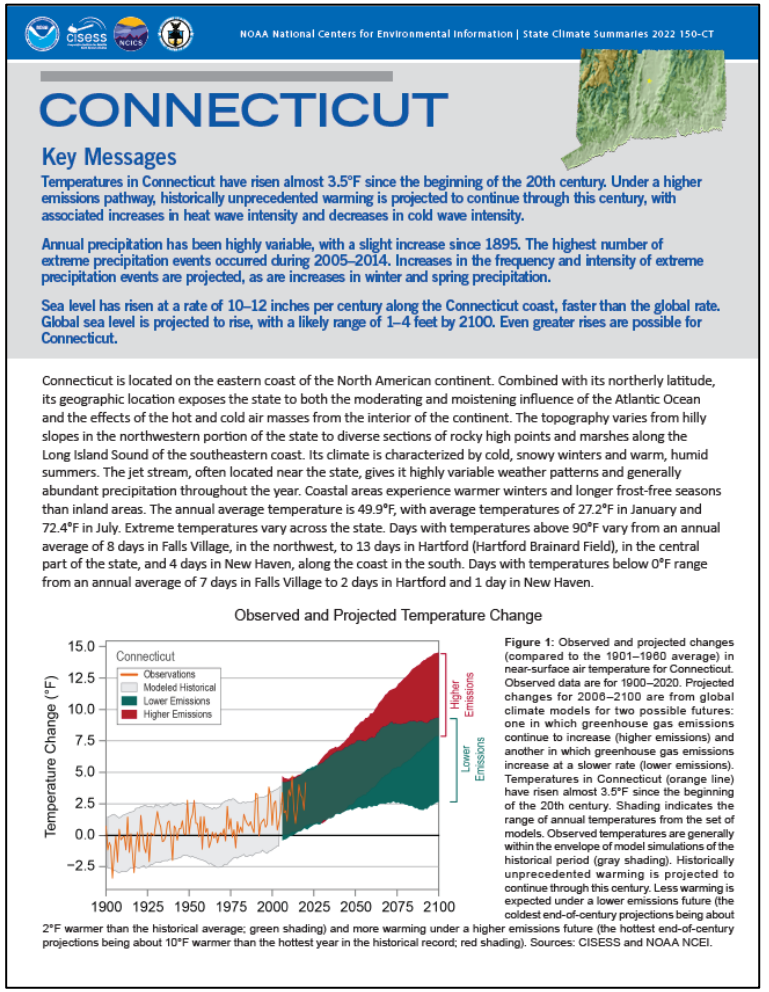
- Rising temperatures
  - Increase in heat-related hazards
  - Acceleration of evapotranspiration and increased risk of drought
- Rising precipitation
  - Average annual precipitation expected to increase 8%
  - Number of days with heavy precipitation to rise from 3 to 5
  - Maximum one-day precipitation to increase
- Sea level rise
  - Increase in risk of property damage where sea level rise affects flooding
  - Increase in road closures and isolation risk



NCEI STATE CLIMATE SUMMARY (2022)

Describes Trends

- 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.



NOAA National Centers for Environmental Information | State Climate Summaries 2022 150-CT

CONNECTICUT

Key Messages

Temperatures in Connecticut have risen almost 3.5°F since the beginning of the 20th century. Under a higher emissions pathway, historically unprecedented warming is projected to continue through this century, with associated increases in heat wave intensity and decreases in cold wave intensity.

Annual precipitation has been highly variable, with a slight increase since 1895. The highest number of extreme precipitation events occurred during 2005–2014. Increases in the frequency and intensity of extreme precipitation events are projected, as are increases in winter and spring precipitation.

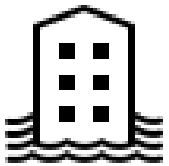
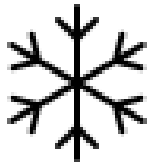
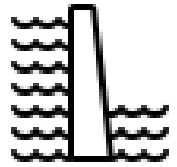
Sea level has risen at a rate of 10–12 inches per century along the Connecticut coast, faster than the global rate. Global sea level is projected to rise, with a likely range of 1–4 feet by 2100. Even greater rises are possible for Connecticut.

Connecticut is located on the eastern coast of the North American continent. Combined with its northerly latitude, its geographic location exposes the state to both the moderating and moistening influence of the Atlantic Ocean and the effects of the hot and cold air masses from the interior of the continent. The topography varies from hilly slopes in the northwestern portion of the state to diverse sections of rocky high points and marshes along the Long Island Sound of the southeastern coast. Its climate is characterized by cold, snowy winters and warm, humid summers. The jet stream, often located near the state, gives it highly variable weather patterns and generally abundant precipitation throughout the year. Coastal areas experience warmer winters and longer frost-free seasons than inland areas. The annual average temperature is 49.9°F, with average temperatures of 27.2°F in January and 72.4°F in July. Extreme temperatures vary across the state. Days with temperatures above 90°F vary from an annual average of 8 days in Falls Village, in the northwest, to 13 days in Hartford (Hartford Brainard Field), in the central part of the state, and 4 days in New Haven, along the coast in the south. Days with temperatures below 0°F range from an annual average of 7 days in Falls Village to 2 days in Hartford and 1 day in New Haven.

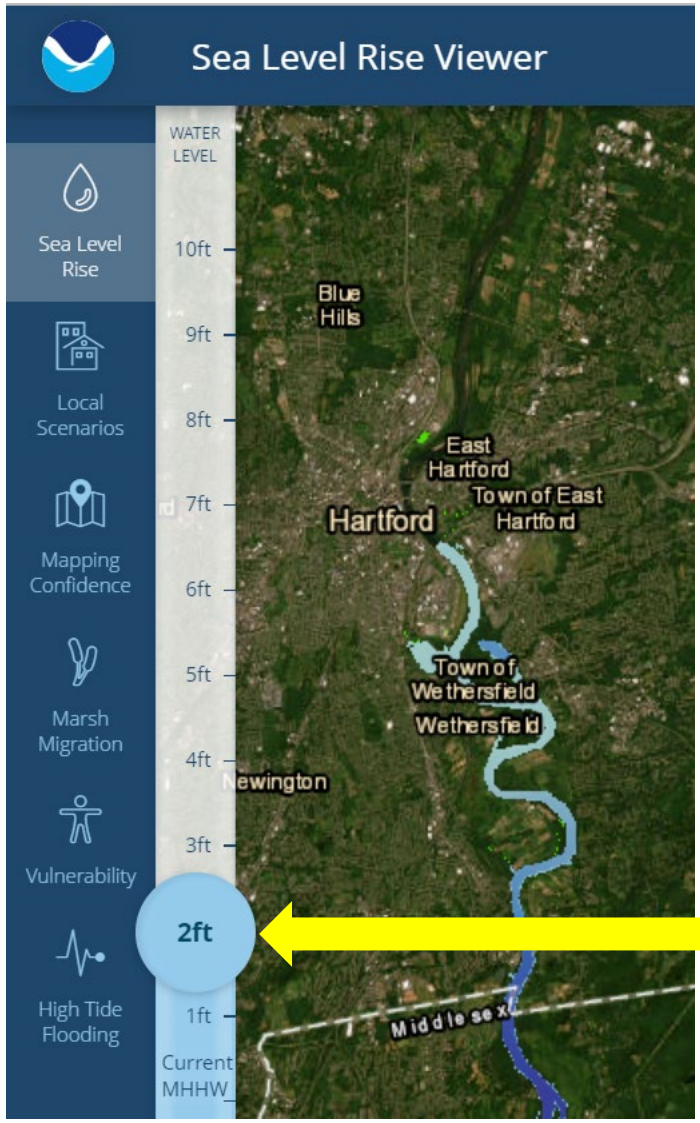
Observed and Projected Temperature Change

Figure 1: Observed and projected changes (compared to the 1901–1960 average) in near-surface air temperature for Connecticut. Observed data are for 1900–2020. Projected changes for 2006–2100 are from global climate models for two possible futures: one in which greenhouse gas emissions continue to increase (higher emissions) and another in which greenhouse gas emissions increase at a slower rate (lower emissions). Temperatures in Connecticut (orange line) have risen almost 3.5°F since the beginning of the 20th century. Shading indicates the range of annual temperatures from the set of models. Observed temperatures are generally within the envelope of model simulations of the historical period (gray shading). Historically unprecedented warming is projected to continue through this century. Less warming is expected under a lower emissions future (the coldest end-of-century projections being about 2°F warmer than the historical average; green shading) and more warming under a higher emissions future (the hottest end-of-century projections being about 10°F warmer than the hottest year in the historical record; red shading). Sources: CISESS and NOAA NCEI.

HOW WILL THIS RELATE TO OUR HAZARDS?

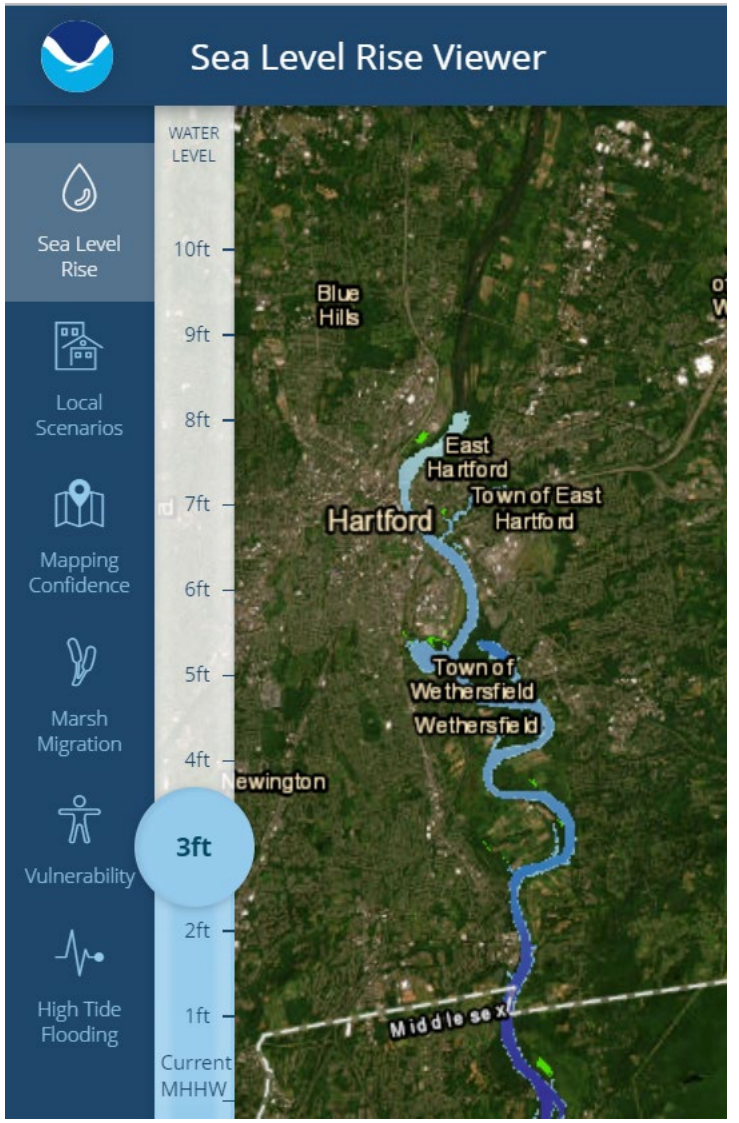
Hurricane		• Storm intensity may increase • More intense rainfall	**Riverine Flooding**		• More frequent as rainfall levels increase • Higher flood levels with increased rainfall patterns
Tornado & Wind		• More severe storms which may ultimately result in tornadoes	**Drought**		• More frequent dry spells, or flashy droughts, between large rainstorms
Winter Storms		• Increase in intensity, but may become less frequent • Heavy snowfall, but more rain by mid-century	**Dam Failure**		• While unlikely, heavy rain may overtop or compromise the integrity of a dam
Wildfires		• With warmer temperatures, and increase droughts, landscapes may become more prone to wildfires	**Extreme Heat**		• Temperatures are rising, and heat waves are expected to become a more frequent occurrence

HOW WILL THIS RELATE TO OUR HAZARDS?



NOAA Sea Level Rise Viewer

- "Bathtub" approach that neglects hydraulics
- Nevertheless, the viewer underscores a potential for exposure
- PA 18-82 requires planning for up to 0.5 m



"WHAT ARE YOUR CLIMATE-RELATED CONCERNS?"

In light of this discussion:

- Do these make sense?
- Would anyone change your answer?
- Are we on the right track?

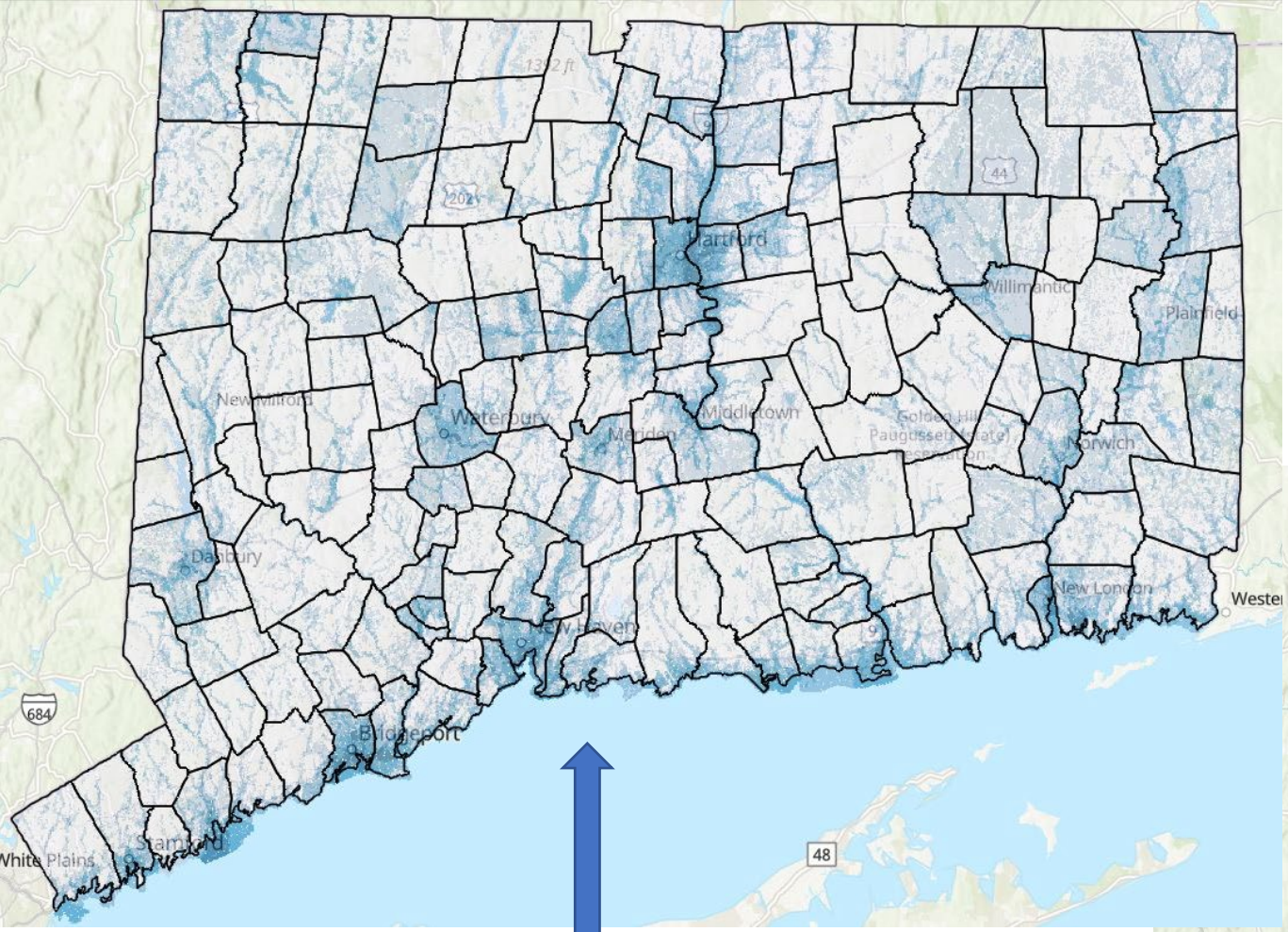
"What are your climate-related concerns?"

- Stream crossings
- Power outages during storms
- Tree management
- Riverbank stabilization
- Sewer infrastructure (treatment, pumping, conveyance)
- Stormwater collection and conveyance
- Generators for critical facilities
- Algal blooms in lakes
- DEEP-owned and privately-owned dams
- Elderly and vulnerable populations
- Agriculture
- Private wells

RESILIENT CONNECTICUT
VULNERABILITY ASSESSMENT PROGRESS

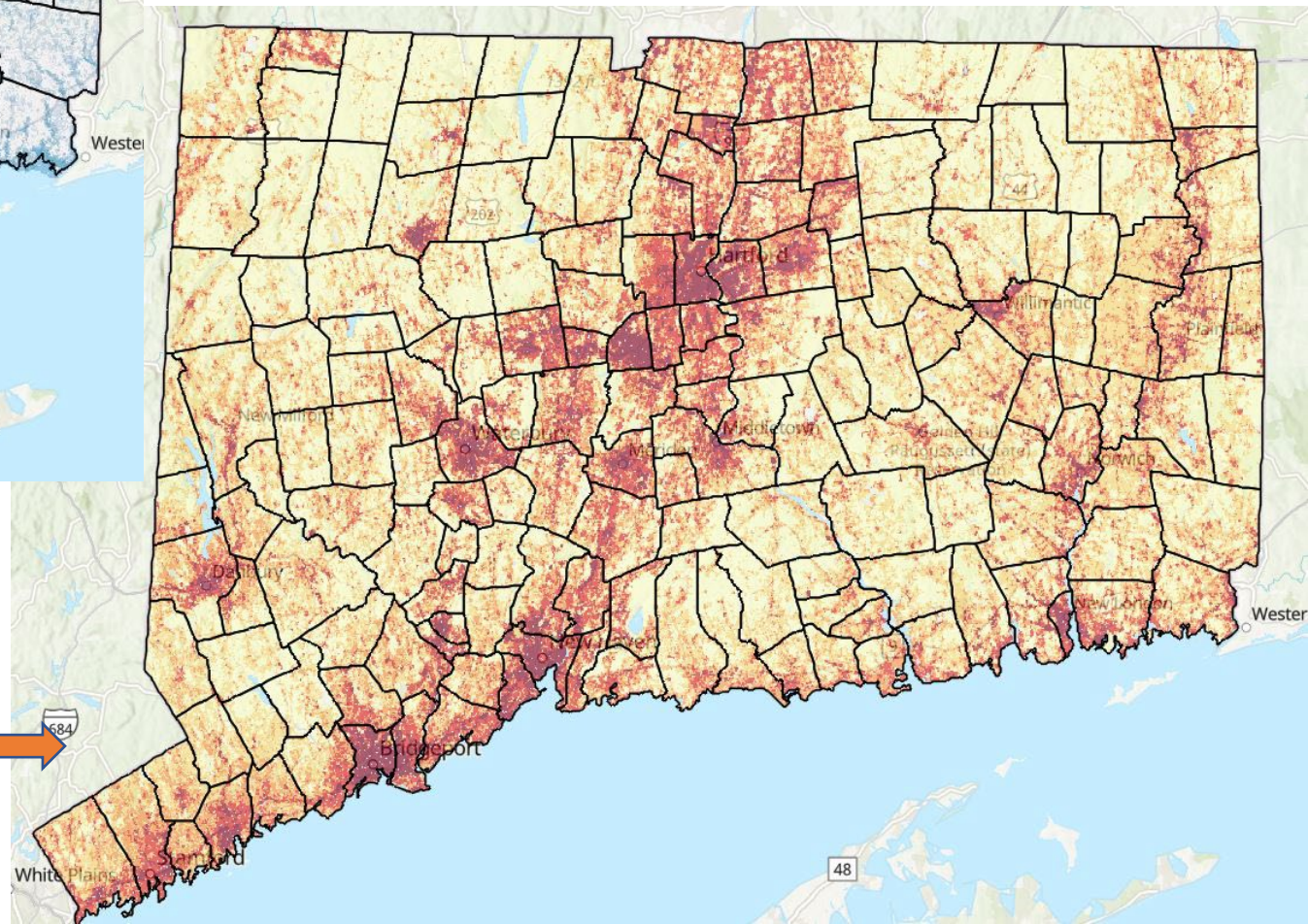
Parkville microgrid photo by Murphy

CLIMATE CHANGE VULNERABILITY INDEX (CCVI)



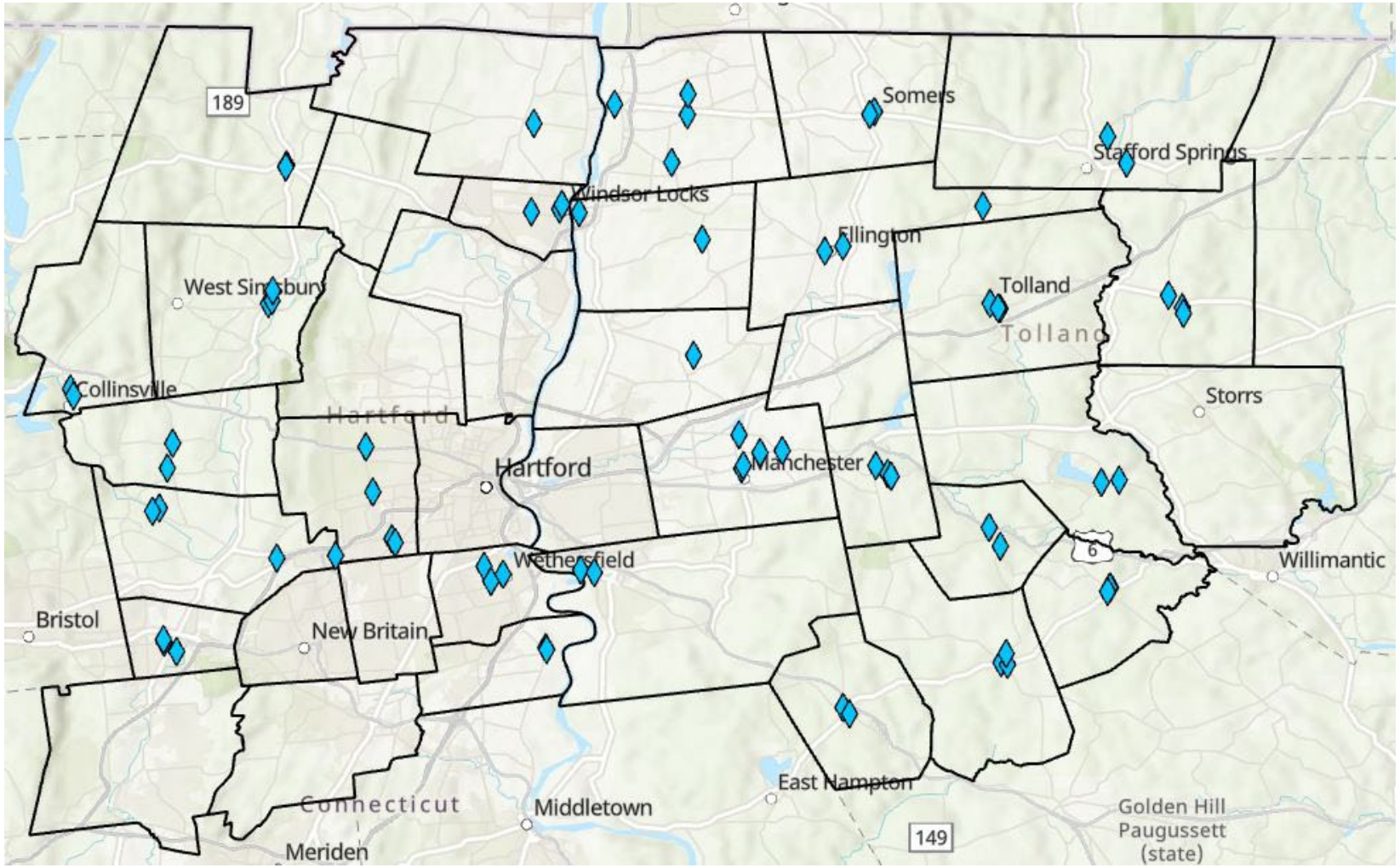
Flood Vulnerability

Extreme Heat Vulnerability



COOLING CENTER MAPPING AND SPATIAL ANALYSIS

- We asked and you told us what you use as cooling centers
- Spatial analysis forthcoming
- Will think about excessive distances



NEXT STEPS

1 **Help us with public engagement!**

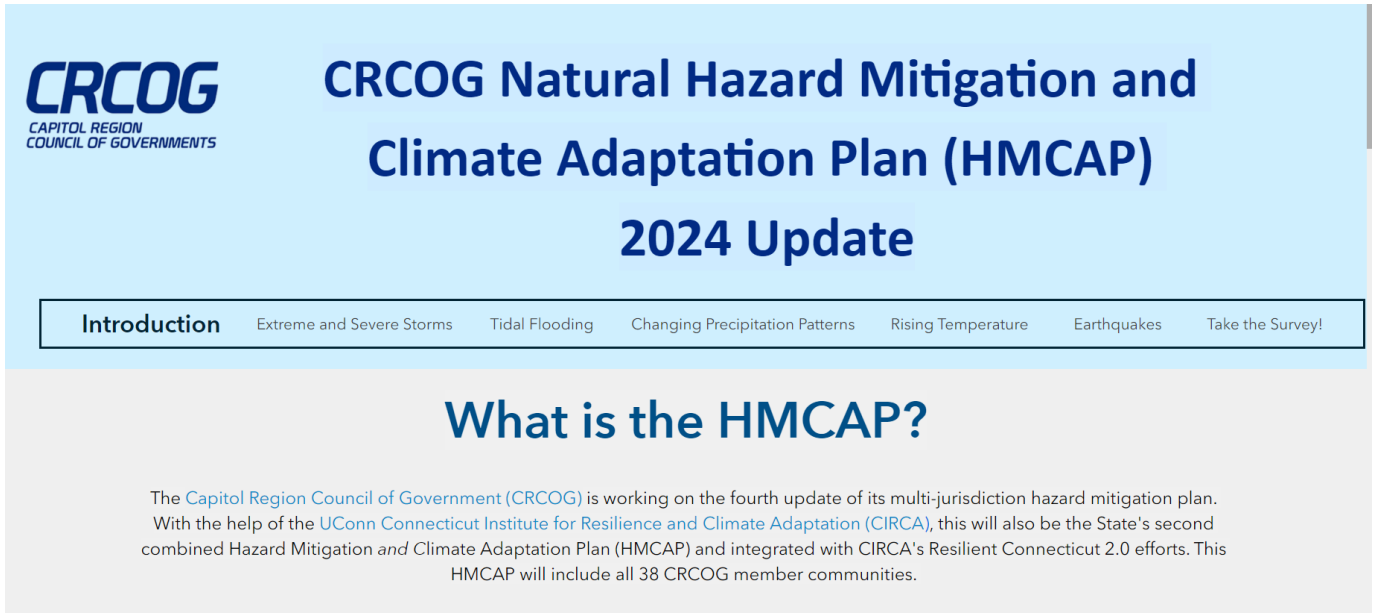
- Post links to Story Map and Survey on your website like this

2 **Plan to attend only ONE more of these workshops!**

- We will develop a set of hazard mitigation & climate adaptation goals and strategies for all towns

3 **Remain engaged on Resilient Connecticut**

4 **Set aside time this fall to review the draft HMCAP!**



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Stream Crossings	Sewer Infrastructure	Trees and Power Outages	River and Stream Banks	Vulnerable Populations
10	10	10	10	10
20	20	20	20	20
30	30	30	30	30
40	40	40	40	40
50	50	50	50	50

The access to the wastewater treatment facility in this town is at risk due to a stream crossing. The road floods and is a location that washed out during one of the 2021 storms.

This Town has set aside funds to evaluate and re-engineer the most problematic culverts, but has not yet determined which culverts will be addressed first with these funds.

Flooding is the main climate-related concern in this town. The Abbott and Middle Road crossings appear undersized, resulting in road flooding. Jobs Hill Road between Tomoka Ave and Muddy Brook Rd also tend to flood, as not much drainage infrastructure is in place here.

.

The numerous crossings of Trout Brook and the East Branch Trout Brook in this town are believed undersized for increasing precipitation intensities.

Culverts washing out are a concern for this town. Examples are a culvert on Griffin Rd and two culverts on Rye Street.

The wastewater treatment plant in this town is at risk of flooding along the Pequabuck River.

The sewer interceptor at Stony Brook in this town may be at risk from erosive or flooding streamflows.

This town participates in a regional sewer system and it has many stream crossings and at least one low-lying pumping station. This town also values its pristine watersheds and has endured one recent sewer line break.

This Town’s sewage treatment system relies on infiltration basins. The system experienced its first overtopping event during an intense rain event in spring 2023.

Sewage backups were a significant challenge in this city during flooding from Storm Ida in 2021.

Tree debris on the ground throughout this rural town is causing challenges related to severe storms, intense precipitation, and flooding.

This town is spending about $80,000 per year to cut dead trees. The town has 5,000 acres of open space, much of which is state-owned. The state is timbering the State-owned land.

Trees are a major concern, as are their effects on power outages. This Town is interested in a microgrid to help critical facilities withstand extended outages.

Significant tree damage occurred in this town during Isaias, and at one point 90% of this town lost power. The town regularly works with Eversource to trim vegetation around power lines.

Tree management to avoid blocked roads and power outages is a continual battle in this town. Streets that only have secondary power lines aren’t included in Eversource’s trimming program. Parts of this town were out of power for 4-5 days after Isaias.

During intense precipitation events in this rural town, floodwaters in West Branch Salmon Brook are eroding streambanks in a park and downstream.

Because of the major bend in the river in this town, floodwaters are eroding the riverbank in proximity to a sewer trunk and a cemetery.

During typical annual flood events along the river in this town, bank erosion is a concern along Riverbank Road and other roads.

This town reportedly includes extensive erodible soils associated with post-glacial terrace sediments, which contribute to erosion challenges along streams and elsewhere.

Gulf Stream erodes and some residential properties have experienced severe erosion in this town. Some houses have only 15-20 ft remaining (laterally) before parts of their back yards start to erode.

Socially vulnerable people are living in hotel rooms near the airport in this town. Many of these hotels do not have backup power.

This Town is concerned about the aging population and people in group homes. A while back, they had to open a shelter and found that dealing with the aging population was challenging, and they are unsure if they have the resources to take care of the aging population if a shelter needs to be opened.

Two elderly housing complexes in this town have AC only in a portion of the facilities. There is some back-up power, but not enough to power the full complexes. During a winter storm, the town evacuated the elderly to the senior center because of concerns that power would be lost.

The senior housing in this town has limited egress due to its location across a river.

Socially vulnerable people are living in motels along the turnpike. This creates a new type of emergency management need in this town.

HAZARD MITIGATION PLAN UPDATE

4th Edition:

A New Hazard Mitigation and Climate Adaptation Plan (HMCAP) for the Capitol Region of Connecticut

CRCOG

Mitigation and Climate Adaptation Action Workshop
Oct 3, 2023

CIRCA
Connecticut Institute for Resilience and Climate Adaptation

THE GOALS OF THIS WORKSHOP

1. Review the actions that will appear in your municipality's annex (chapter) that come from State, regional, or other shared efforts

2. Provide an opportunity for additional discussions

AGENDA

- The HMCAP and *Resilient Connecticut*
- Updates on Municipal Meetings and Engagement
- Climate-Driven and Hazard Mitigation Needs
- Climate Adaptation and Hazard Mitigation Strategies
- Action and Strategy “Shopping”
- HMCAP Next Steps

BACKGROUND ON HMCAP AND *RESILIENT CONNECTICUT*

Photo by Town of Manchester

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

Goal of Disaster Mitigation Act of 2000

- Promote hazard mitigation *actions* to *reduce losses*

Eligibility for Three Primary Hazard Mitigation Assistance (HMA) Grant Programs

- Building Resilient Infrastructure and Communities (BRIC)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)

- Next opportunity for BRIC and FMA grant applications will be Fall 2023
- The new DEEP Climate Resilience Fund (DCRF) asks if the application is related to actions in the Hazard Mitigation Plan, demonstrating expanded uses for these plans

This is the Region's 4th Plan

PURPOSE AND NEED FOR HAZARD MITIGATION PLAN

What is a Natural Hazard?

- An extreme natural event that poses a risk to people, infrastructure, and resources.

What is Hazard Mitigation?

- Actions we take now that reduce or eliminate long-term risk to people, property, and resources from natural hazards and their effects.

WHICH HAZARDS DO WE ADDRESS?

Extreme and Severe Storms

- Hurricanes and Tropical Storms
- Tornadoes and High Wind Events
- Severe Winter Storms

Sea Level Rise

- Tidal Connecticut River Flooding

Changing Precipitation

- Riverine and Pluvial Floods
- Droughts
- Dam Failure

Rising Temperature

- Extreme Heat
- Wildfires

Earthquakes

- Not affected by climate change, but addressed in the plan as always

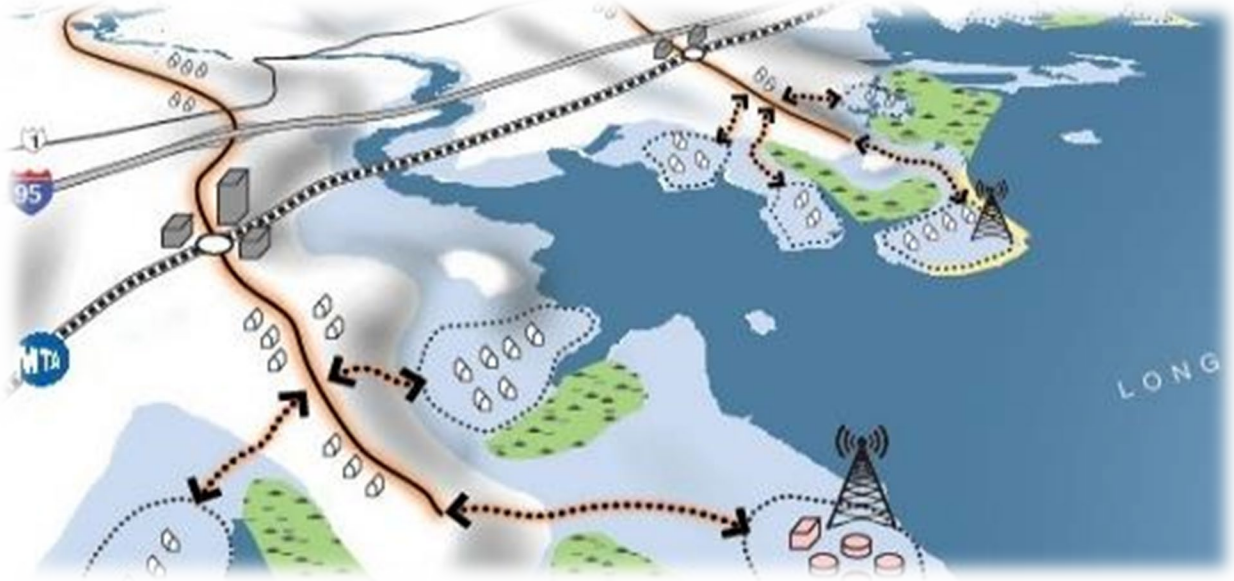
WHAT IS THE *RESILIENT CONNECTICUT* PROGRAM?

Resilient Connecticut 1.0 was funded by the National Disaster Resilience Competition and focused on regional resilience and adaptation planning for flooding and extreme heat in Fairfield and New Haven Counties.

- Emphasized transit-oriented development, affordable housing, critical infrastructure, and regional assets.
- Developed Social Vulnerability Index (SVI), Climate Change Vulnerability Index (CCVI), Zones of Shared Risks (ZSR), and Resilience Opportunity Areas (ROARs)

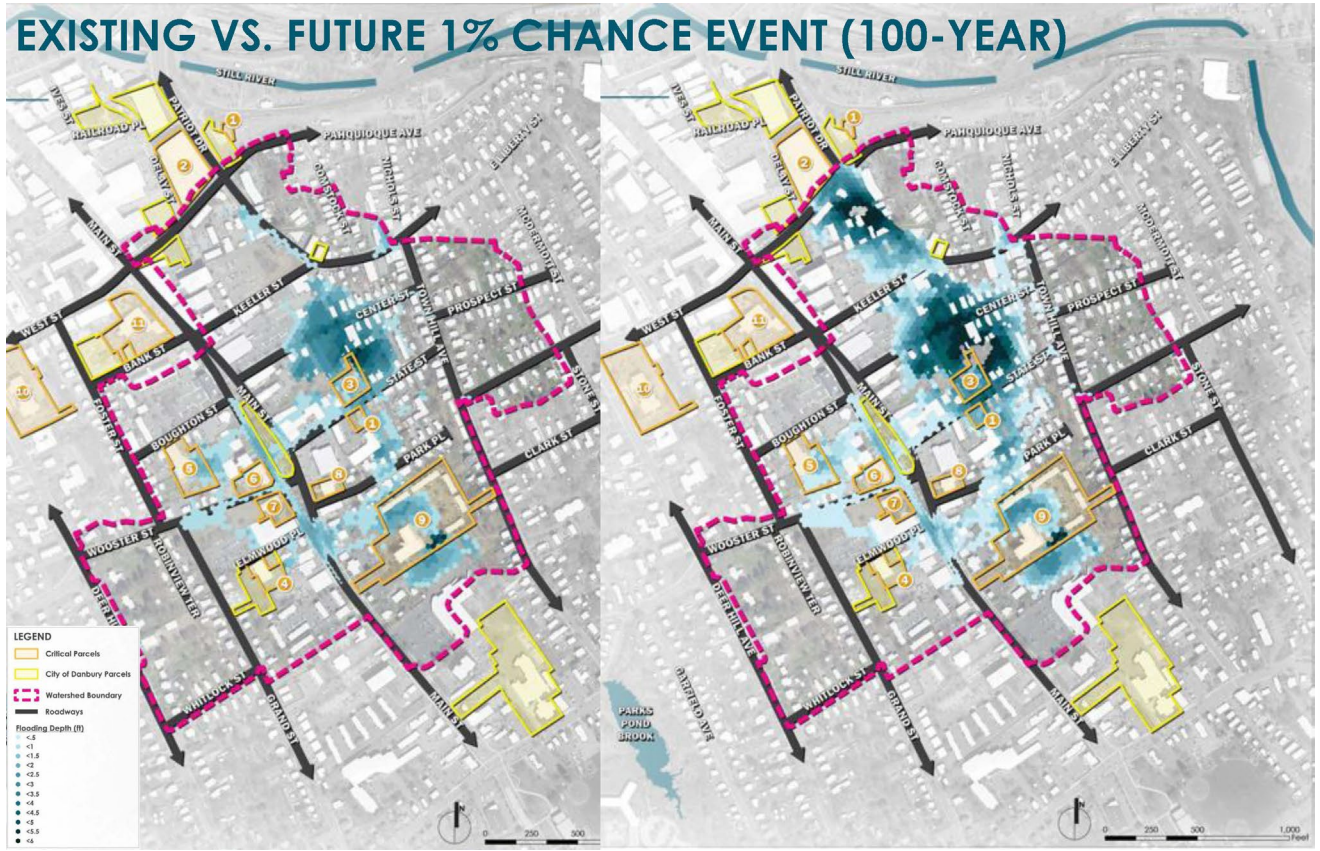
Resilient Connecticut 2.0 extends this effort using State funds.

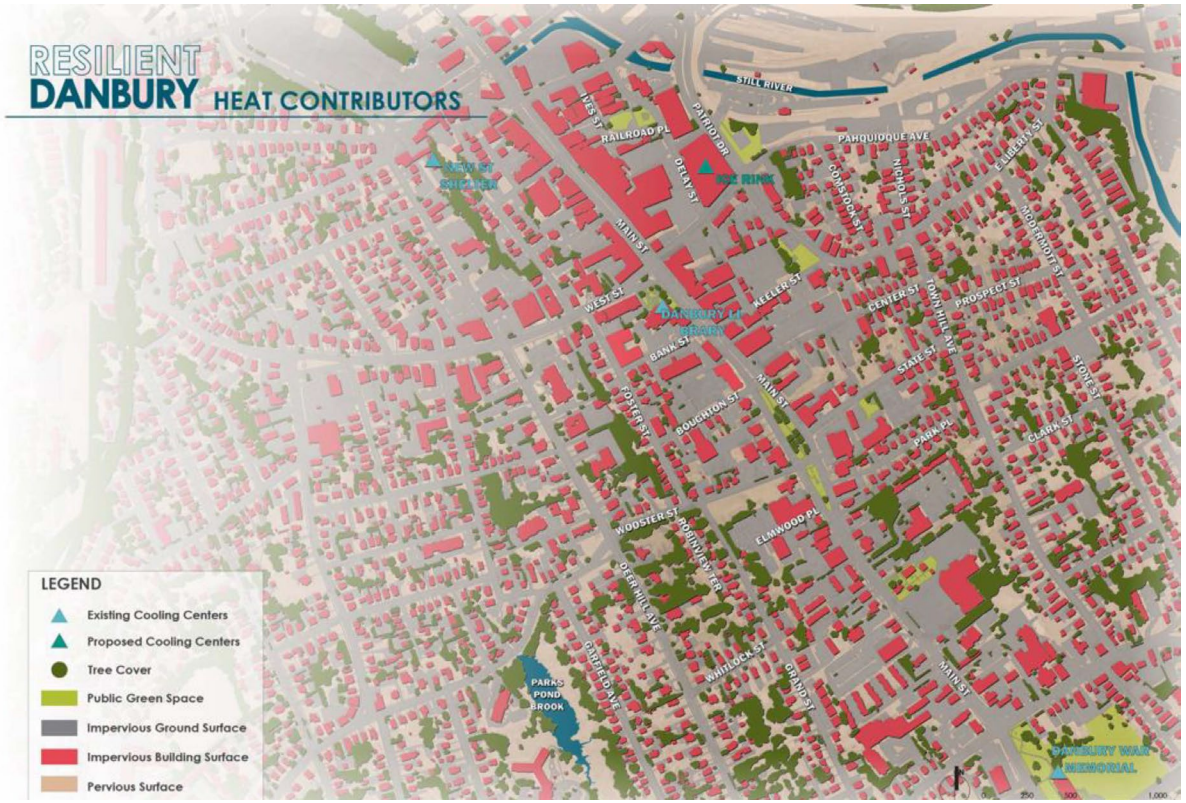
- Increases flexibility to address the climate concerns unique to other regions.
- CRCOG is an active partner in the deployment of the program in central Connecticut



WHAT IS THE *RESILIENT CONNECTICUT* PROGRAM?

- Some of you will get a study and concept design to address flooding and/or extreme heat





COMBINING PROGRAMS TO BENEFIT THE REGION

Hazard Mitigation Plan Update

Through the Hazard Mitigation Plan, CRCOG and CIRCA:

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

A Combined Hazard Mitigation and Climate Adaptation Plan for the Capitol Region

UPDATE ON MUNICIPAL MEETINGS AND ENGAGEMENT

FEEDBACK ABOUT VULNERABILITIES AND RISKS

Met with 37 municipalities in May – September 2023

Reviewed Hazard Mitigation Plan actions to learn status and think about which can be channeled into resilience projects

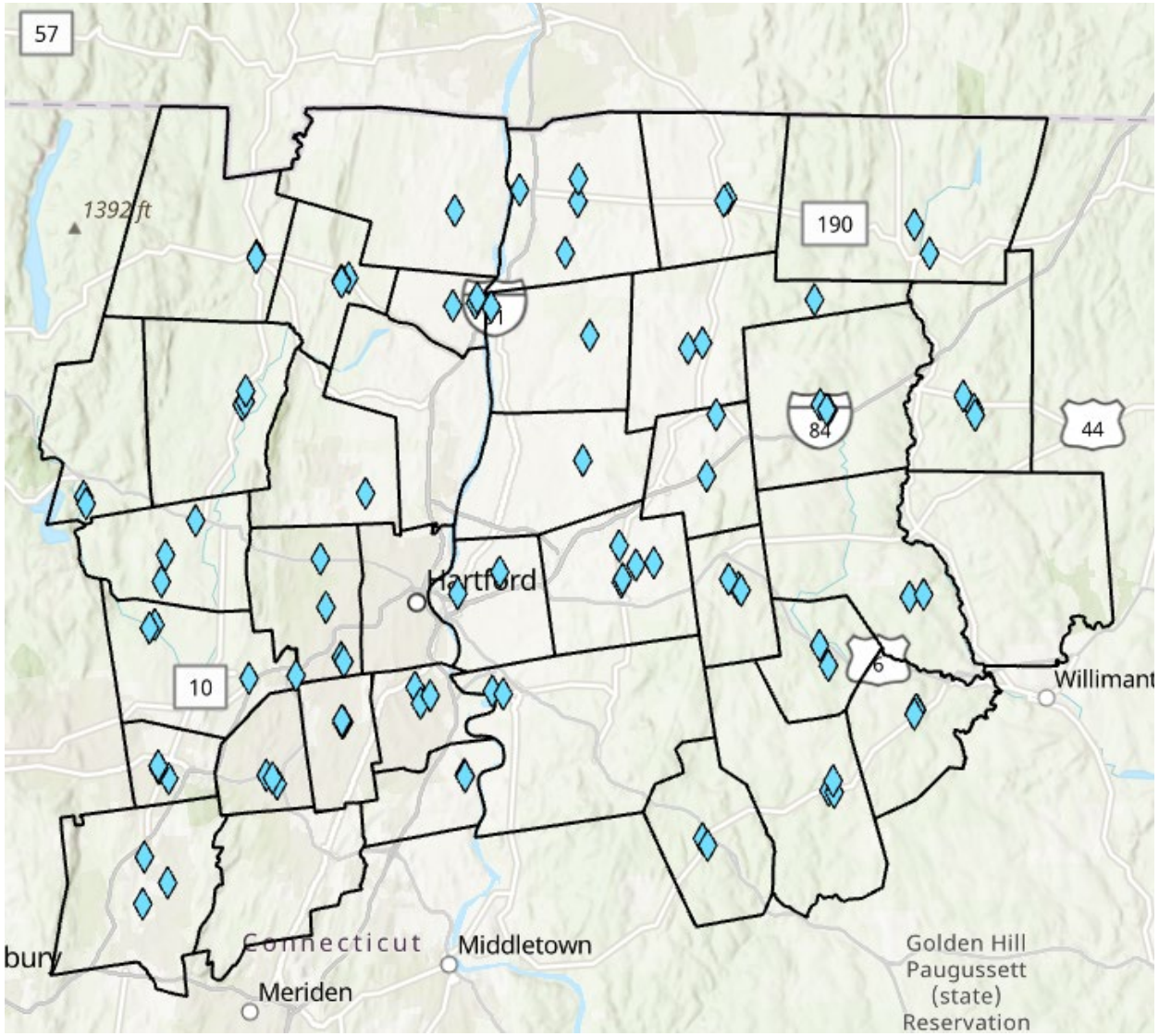
- Asked about concerns related to flooding, erosion, extreme heat, and combinations
- Asked about unique concerns beyond the typical confines of a hazard mitigation plan

"What are your climate-related concerns?"

- Stream crossings
- Power outages during storms
- Tree management
- Riverbank stabilization
- Sewer infrastructure (treatment, pumping, conveyance)
- Stormwater collection and conveyance
- Generators for critical facilities
- Algal blooms in lakes
- DEEP-owned and privately-owned dams
- Elderly and vulnerable populations, including those in hotels
- Agriculture
- Private wells

COOLING CENTER MAPPING AND SPATIAL ANALYSIS

- We asked and you told us what you use as cooling centers
- Spatial analysis forthcoming
- Will think about excessive distances

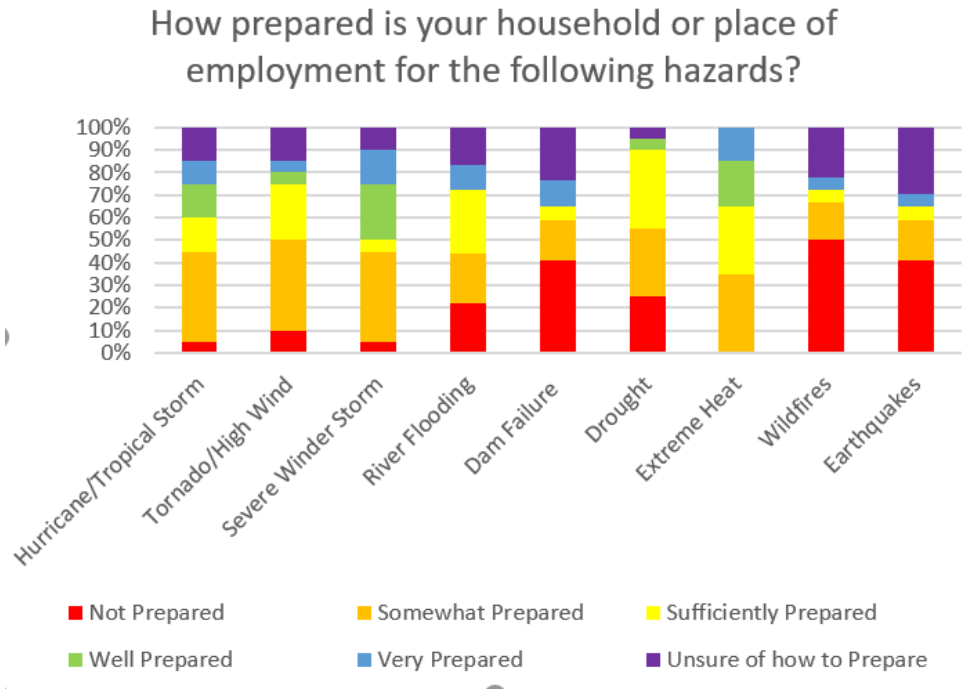


PUBLIC ENGAGEMENT

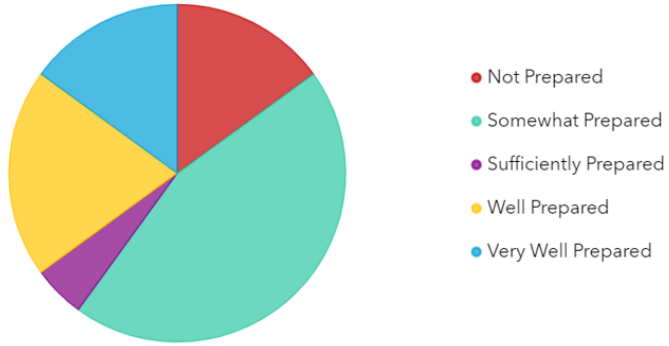
- **October 2023 Public Meetings**
  - **Tuesday, October 10th, 6 pm:** In-person / hybrid meeting at the CRCOG Headquarters in Hartford (241 Main St, Hartford)
    - **Link:** https://s.uconn.edu/cq5ftyuy45
  - **Thursday, October 12th, 6 pm:** Virtual meeting
    - **Link:** https://s.uconn.edu/54me0gptzz
  - **Story Map:** https://experience.arcgis.com/experience/ce49080668d14e6eac9f26f0d5128a0c/

PUBLIC ENGAGEMENT

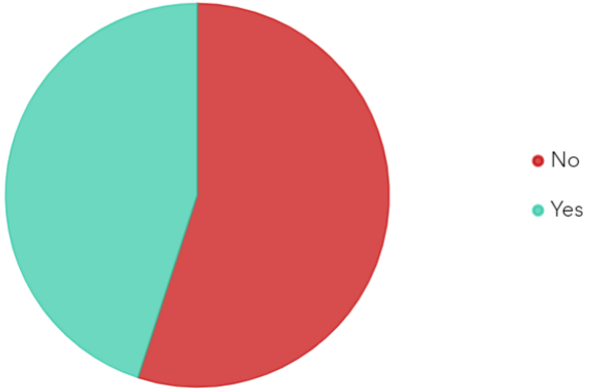
- Survey – 24 questions, 20 respondents to date
  - Manchester (10), Glastonbury (4), Bolton (1), Ellington (1) Hartford (1), Plainville (1), Tolland (1), Willington (1)
  - Concerned about most hazards (not earthquakes)
  - Increase in hurricane/tropical storms, tornadoes/high winds, river flooding/ drought/extreme heat: decrease in winter storms events
  - 13 out of 18 have signed up for alerts, 2 participants didn't respond



How prepared do you think your community is in delivering emergency notifications?

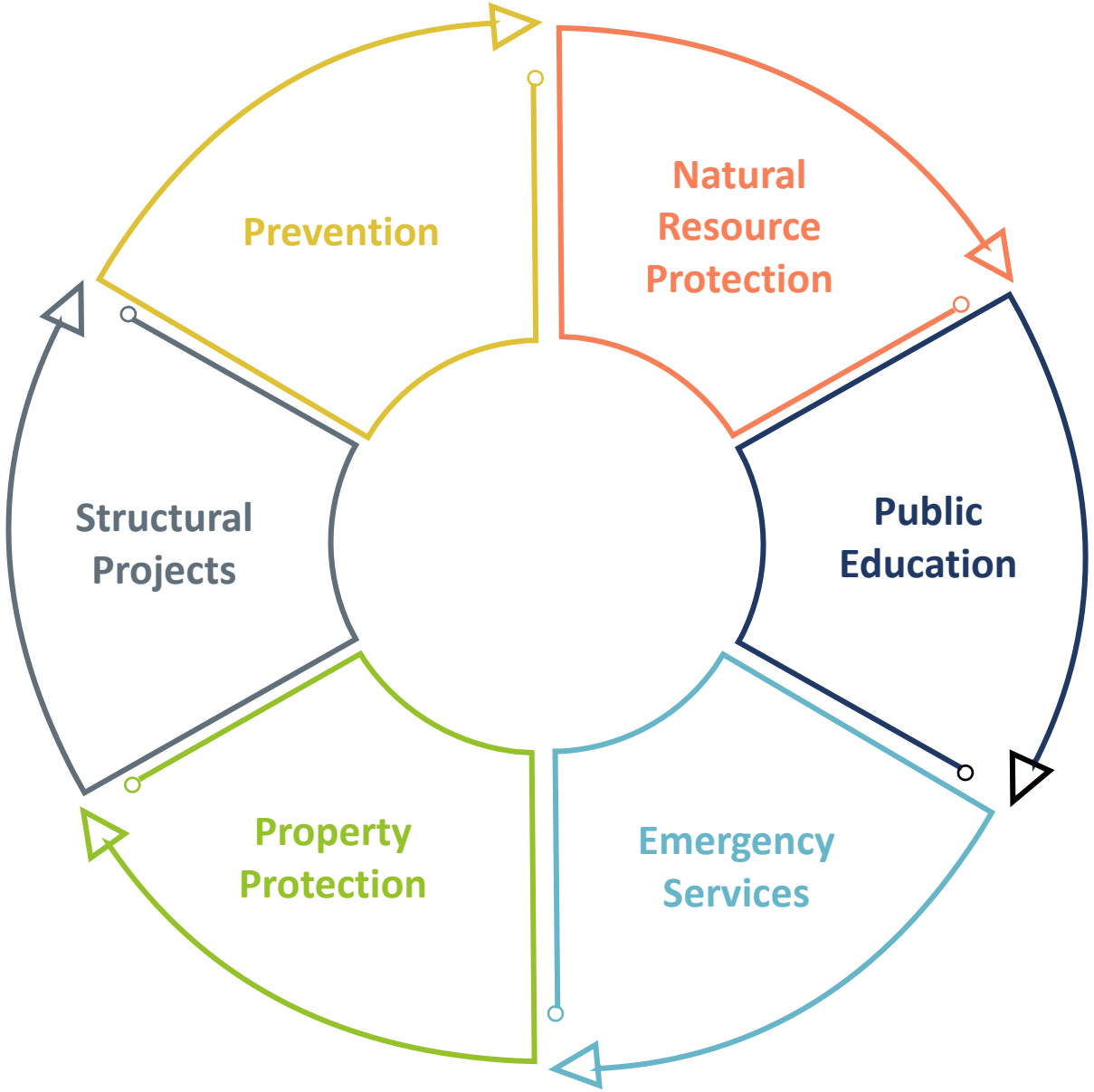


Do you know where your local community shelter is located?



CLIMATE ADAPTATION AND HAZARD MITIGATION STRATEGIES

STRATEGIES AND ACTIONS



Structural Project

Property Protection through Elevation

DID YOUR LAST PLAN INCLUDE STATE AND REGIONAL ACTIONS? YES

- State: Historic and Cultural Resources Resilience
  - 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.
  - Coordinate with CT SHPO to conduct outreach to historic property owners to educate them on methods of retrofitting their properties to be more hazard-resilient while maintaining historic character.
- State: Preventing Toxic Releases
  - 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
- State: Municipal Staff Continuing Education
  - Participate in EMI courses or the seminars and annual conference held by the Connecticut Association of Flood Managers.
- Regional: Stormwater Management
  - 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.
- Other Actions that many communities shared
  - Join Sustainable CT program and seek certification
  - LID

DID YOUR **LAST** PLAN INCLUDE STATE AND REGIONAL ACTIONS? **YES**

- State: Historic and Cultural Resources Resilience
  - 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.

Retire or Replace with Specific Action

- State: Preventing Toxic Releases
  - 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

Retire or Replace with Specific Action

- State: Municipal Staff Continuing Education
  - Participate in EMI courses, the annual conference held by the Connecticut Association of Floodplain Managers.

Retire or Carry Forward, Town Preference

- Regional: Stormwater Management
  - Coordinate with NEMO activities to secure state and technical support for hazard mitigation actions involving stormwater management and public outreach, which have parallel benefits related to MS4 stormwater permit compliance.

Retire if compliant with MS4

- Other Actions that many communities shared
  - Join Sustainable CT program and seek certification
  - LID

Retire or Replace with Specific Actions

WHAT ARE THE CURRENT STATE EFFORTS OF NOTE?

- Priorities from Governor's Council on Climate Change (GC3)
  - Conduct vulnerability assessments for specific infrastructure, critical facilities, and assets
  - Incorporate Environmental Justice (EJ) in planning and project development
  - Understand the Governor's Executive Order and the new DEEP Climate Resilience Fund
- Managing Extreme Heat
  - Opportunities to provide shade and reduce sources of heat
  - Access to cooling centers
- Stormwater Authorities/Stormwater Utilities
  - Implementing stormwater utilities to assess charges related to stormwater

WHAT ARE THE CURRENT REGIONAL EFFORTS OF NOTE?

- Actions from recent water utility planning efforts
  - Water Utility Coordinating Committee (WUCC) ongoing meetings
  - Coordinated Water System Plan (2018)
- Actions related to the upcoming stormwater utility feasibility study
  - Recent State actions make it easier to establish stormwater utilities
  - CRCOG has a grant to undertake this study
- CRCOG Regional POCD Update
- CRCOG Climate Action Plan

DRAFT LIST OF STATE AND REGIONAL CHALLENGES

- Critical facilities
- Cooling centers
- Droughts
- Water supply issues
- Agriculture
- Stormwater Authorities / Infrastructure
- Dams
- Stream crossings
- Vulnerable populations
- Forestry / tree management


SHOPPING EXERCISE

COOLING CENTER RESILIENCE

1. Identify and set up additional designated cooling centers throughout my jurisdiction

2. Develop more accessible transportation to bring residents to existing cooling centers

3. Identify more locations for heat respite whether private or publicly owned, such as shade and water access

4. Ensure critical facilities have redundancies such as standby power, water supply, or resilient access

DROUGHT RESILIENCE

1. Share water between Community water systems
2. Develop more water sources and supplies throughout the region
3. Stricter/no water use measures (conservation) to help withstand droughts
4. All of the above, please

WATER SUPPLY NEEDS

1. Expand public water systems into Areas served by private wells
2. Make private wells more resilient to droughts, floods, and loss of capacity over time
3. Should be addressed on a case-by-case basis

AGRICULTURE

1. Develop ways to address, recover, or reimburse from agricultural losses during floods.
2. Develop ways to address, recover, or reimburse from agricultural losses during droughts; or develop new water supplies.
3. Address erosion of agricultural fields
4. All of the above, please

STORMWATER INFRASTRUCTURE

1. Explore feasibility of implementing a stormwater utility
2. Explore other options to generate Stormwater-related revenue
3. Do nothing: stormwater isn't our problem to solve in this way; we have regulations and ordinances

DAMS

1. Work with DEEP Dam Safety to determine Needs for low-risk dams (Class A and AA)
2. Contact property owners of low-risk dams to see how the community can assist
3. Should be addressed on a case-by-case basis

STREAM CROSSINGS

1. Perform a town-wide study to determine which culverts need to be replaced/upsized

2. Address on a case-by-case basis, and choose a few priorities to list in the plan

VULNERABLE POPULATIONS

1. Provide options for in-place resiliency
2. Provide more resilient housing / resources in less vulnerable locations
3. Ensure town resources are available nearby

FORESTRY MANAGEMENT

1. Develop a town-wide forestry / tree management plan
2. Develop a tree management plan for town-owned parcels
3. Address on a case-by-case basis

NEXT STEPS

NEXT STEPS

- **What We Need From You:**
  - **Review the Community Profile and Capabilities section of your town's *existing* annex and make any needed corrections to the text *by the end of October.***
- Updated annexes will be emailed winter 2024. Please distribute to staff for review:
  - The people who attended the meeting in May, June, July, August, Sept 2023
  - People who will be around in early 2024
  - Anyone else you think could be helpful
- The plan will be provided to DEMHS in Spring 2024, for review with FEMA
- Adoptions will occur in Summer 2024

CONTACT INFORMATION

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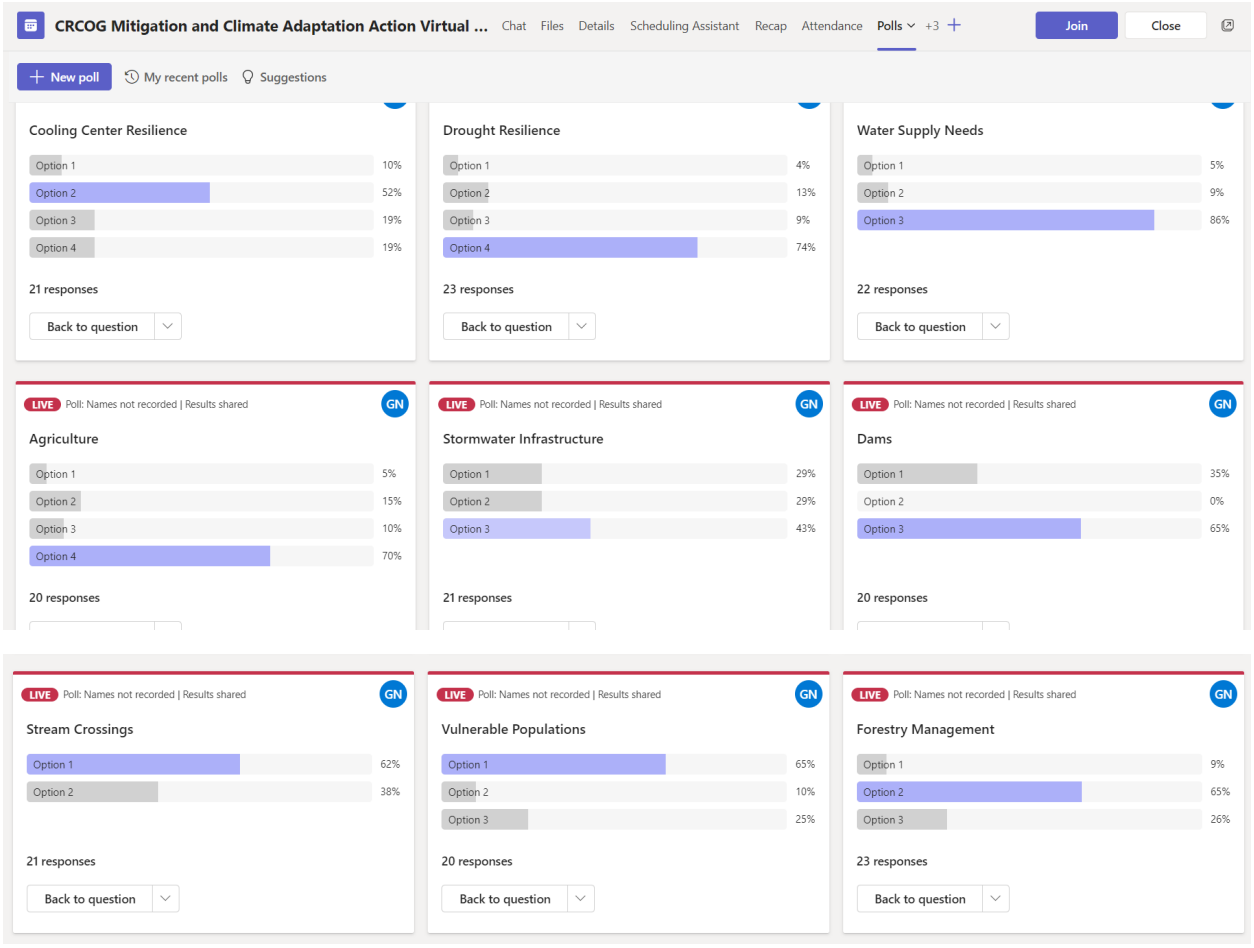
CRCOG Mitigation and Climate Adaptation Action Virtual ...
Chat
Files
Details
Scheduling Assistant
Recap
Attendance
Polls
+3
Join
Close
New poll
My recent polls
Suggestions
Cooling Center Resilience
Option 1 10%
Option 2 52%
Option 3 19%
Option 4 19%
21 responses
Back to question
Drought Resilience
Option 1 4%
Option 2 13%
Option 3 9%
Option 4 74%
23 responses
Back to question
Water Supply Needs
Option 1 5%
Option 2 9%
Option 3 86%
22 responses
Back to question
LIVE Poll: Names not recorded | Results shared
GN
Agriculture
Option 1 5%
Option 2 15%
Option 3 10%
Option 4 70%
20 responses
LIVE Poll: Names not recorded | Results shared
GN
Stormwater Infrastructure
Option 1 29%
Option 2 29%
Option 3 43%
21 responses
LIVE Poll: Names not recorded | Results shared
GN
Dams
Option 1 35%
Option 2 0%
Option 3 65%
20 responses

LIVE Poll: Names not recorded | Results shared
GN
Stream Crossings
Option 1 62%
Option 2 38%
21 responses
Back to question
LIVE Poll: Names not recorded | Results shared
GN
Vulnerable Populations
Option 1 65%
Option 2 10%
Option 3 25%
20 responses
Back to question
LIVE Poll: Names not recorded | Results shared
GN
Forestry Management
Option 1 9%
Option 2 65%
Option 3 26%
23 responses
Back to question