#### **RESILIENT CONNECTICUT 2.0**



Overview for Town of East Hampton April 28, 2022







- Review of Resilient Connecticut 1.0
- Introduction to Resilient Connecticut 2.0
- Review of Zones of Shared Risk
- Review of Hazard Mitigation Plan Actions
- Open Discussion
- Wrap-Up





#### **Review of Resilient Connecticut 1.0**

• **Resilient Connecticut 1.0** originated from a successful State application to the National Disaster Resilience Competition (NDRC) several years ago







#### **Review of Resilient Connecticut 1.0**

- Originally called the "Connecticut Connections Coastal Resilience Plan," the planning effort evolved to focus on climate drivers of flood and extreme heat hazards throughout Fairfield County and New Haven County
- Transit oriented development (TOD), affordable housing, critical infrastructure, and key assets were emphasized in the planning process
- The planning phase is ending, and CIRCA is shifting into the study and concept design phase for Fairfield County and New Haven County





• Climate Change Vulnerability Index (CCVI)









• Zones of Shared Risk

Doping Ln Roman Deelle & Sunder	Glasser I St M urbn Sr In Lutter King Jr Dr Anglor Are Me of SM Me of SM	100 Lotting	Manon Ave	23 fr. Car Shothaven
Hollo <sup>a</sup> Lenox Ave Norwal	lik Krapp St	Baxter (1 of 2)		
De vils Garden Rd De vils Garden Peephood De vils Garden Peephood De vils Garden Rd E vilood Rd	February Rd Ely Ave back of Streetan A	Sable St Yost St	Flood Norwalk in ID 7000-25 ne ID 142	Pound Beach
Road Van	Ryan Ave	Lordshore N <sup>16</sup> A Start ZSR ID Nested ZS	7000-25-142- 0 SR ID 0 ification Access	8 Beach
k New Haven and Hamon		ZSR Neste ZSR Sourc ZSR Note ZSR Olass	ed No Second No No Second NA Second NA Second Harborview	
Ledge Rd Pange Rd Pange Rd	Contraction of the second	Secondar Notes Zoom to	y	





• Identification of Challenges that are Opportunities

Zone of Shared Risk: 5206-00-249-0 Town: Meriden Type: Flood, Proximity



**Combined Vulnerability** 





Flood Vulnerability



**Heat Vulnerability** 







• Identification of Challenges that are Opportunities

Name: Downtow Location: Meride	n Meriden n
Considerations	Characteristics of Area
Flood Vulnerability	$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$
Heat Vulnerability	$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$
Social Vulnerability	$\bigcirc \bigcirc $
Critical facilities, historic r and TOD intersect in dow	esources, major transportation routes, ntown Meriden within the Harbor Brook







- Recommended Climate Adaptation & Resilience Projects
  - Danbury Flood mitigation through stream daylighting and identification of cooling center
  - Norwalk Resilient corridors and heat mitigation in South Norwalk
  - Fairfield Addressing flooding railroad underpasses and advancing green infrastructure
  - Stratford Re-envisioning flood solutions for the South End
  - Ansonia TOD connectivity across river and heat mitigation
  - Branford Using railroad grade for flood protection
  - New Haven Egress through areas of flood risk and heat mitigation for Fair Haven





• A recognition of the *Resilience Project Pipeline* 





## **Introduction to Resilient Connecticut 2.0**

- Resilient Connecticut 2.0 is being deployed using State funds
- Timeframe is 2022-2023
- The CCVI will be expanded statewide
- Focused planning will include the RiverCOG, CRCOG, and SCCOG regions for:
  - Technical assistance for various challenges
  - Delineation of Zones of Shared Risk
  - Review of Flood Vulnerability Study and Hazard Mitigation Plan to help with identification of resilience opportunity areas





### **Resilient Connecticut 2.0**

- Leverage Your Hazard Mitigation Plan
  - What can we pick up, advance, or re-cast?
- Find Complex Climate Adaptation and Resilience Projects
  - Flood mitigation
  - Erosion mitigation
  - Extreme heat
  - Combinations
- Be Flexible
  - We are no longer tied to TOD, affordable housing, and critical infrastructure ideas
  - What is important in the Lower Connecticut River region?





#### **Resilient Connecticut 2.0**

- What do we mean by technical assistance for various challenges?
  - Essex: Ferry Street
    Flood Frequency
    Analysis
  - Old Saybrook:
    Fenwick Living
    Shoreline





## **Review of Zones of Shared Risk**

- Seven Types of Flood and Erosion-Based ZSRs
  - Location
  - Proximity
  - Access
  - Natural Systems
  - Underpasses
  - Single Point
  - Sewershed

- Original types piloted in Guilford Resilience Plan
- Added in Resilient Connecticut 1.0
- Additional Potential Typologies for 2.0
- Resources for Mapping
  - FEMA maps (new work maps to be issued late 2022)
  - RiverCOG Flood Vulnerability Assessment
  - RiverCOG Hazard Mitigation Plan



#### **ZSR** Viewer

https://experience.arcgis.com/experience/9a4f68dd99f44dc58b93fd85bcfe1255/





- The planning process was in 2019-2020
- DEMHS and FEMA review was 2020-2021
- Plan approved in spring 2021
- East Hampton listed 13 actions
- We will review each to comment on the status and note:
  - Applicability to address climate drivers of flooding and extreme heat
  - Applicability for the State's resilient project pipeline





Activity #	Goal/Objectiv e	Activity Description	Lead Agency	Est. Cost*	Potential Funding Sources	Timeframe	Hazard (s) Addressed	STAPLEE Score/Priority	Status	Potential for Climate Adaptation/ Resilience Characteristics
1	1-1	Acquire additional equipment to clear roads of downed trees, disabled vehicles, or unforeseen obstacles i.e. chain saws, lifting gear (chains & winches), bulldozer, chipper, wheeled excavator with grapple.	PW, BOS, BOF	\$10,000- \$20,000	CIP	7/2021 – 6/2025	SW, TW, WS, TI	4/H		Low
2	2-1	Bridge on White Birch Road is vulnerable to damage from flood events from Fawn Mill Brook and Loos Pond. Replace with new larger bridge.	PW, BOS, BOF	\$100,000+	Grant HMA	7/2023 – 6/2026	F	7/H		High
3	2-1	Replace culvert on Collie Brook Road with a larger culvert	PW, BOS, BOF	\$25,000- \$50,000	Grant HMA	7/2022 – 6/2024	F	7/H		High
4	2-1	Undersized culvert on Hale Brook at Lake Drive results in roadway flooding. Replace with larger culvert.	PW, BOS, BOF	\$25,000- \$50,000	Grant HMA	7/2022 – 6/2024	F	7/H		High
5	2-1	Demolish factory building at 13 Summit Street and daylight Pocotopaug Creek, and possibly remove the existing dam.	PW, BOS, BOF	\$1M+	Grant HMA	7/2023 – 6/2025	F	9/M		High



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6	2-1	Undersized 24" culvert on Elbow Brook at Wopowog Road results in roadway flooding and erosion of gravel surfaced road. Replace with 3' culvert.	PW, BOS, BOF	\$25,000 - \$50,000	Grant HMA	7/2022 – 6/2024	F	7/H		High
7	2-1	Develop an inventory of deteriorating metal culverts throughout town to begin replacing those most in need.	PW	\$10,000 - \$20,000	OB Grant	7/2021 – 6/2022	F	7/H		Medium
8	1-1	Work with private dam owners on a communication plan regarding the opening and closing of the dams along the Pocotopaug Creek corridor.	PW, BOS, BOF	\$1,000- \$5,000	OB Staff Time	7/2021 – 6/2022	F	3/L		Low
9	1-1	Ensure all Emergency Action Plans (EAPs) for any dam in town is maintained on file.	PW, BOS, BOF	\$1,000- \$5,000	OB Staff Time	7/2021 – 6/2022	F	3/L		Low

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10	2-1	Replace and upgrade the capacity of the Whippoorwill Hollow Road culvert. If this culvert fails, houses will be cut off from egress.	PW, BOS, BOF	\$10,000- \$20,000	Grant HMA	7/2022 _ 6/2024	F	7/H		High
11	1-1	Pursue funding to develop a low impact development (LID) manual for techniques to be implemented throughout the town.	PW, BOS, BOF, Planning	\$5,000 - \$10,000	OB Grant	7/2021 _ 6/2024	F	3/L		High
12	1-1	Develop a management plan that tracks areas in need of tree trimming and removal.	Tree Warden, PW	\$5,000- \$15,000	OB	7/2021 _ 6/2022	SW, TW, WS, F, WF	4/H		Medium
13	2-1	Locate alternative fire protection water sources or identify alternative storage methods for fire suppression capabilities.	Fire Dept., PW, BOS, BOF	\$5,000- \$15,000	ОВ	7/2021 _ 6/2023	WF, D	8/H		Medium

### **Open Discussion**

- Where do you see intersections of community assets and flood-related challenges?
- Where do you see intersections of community assets and extreme heat-related challenges?
- Does East Hampton have examples of unique climate driver typologies and challenges?
- If so, could they lead to either:
  - Limited technical assistance (i.e., Essex Ferry Street)
  - The State's Resilience Project Pipeline





# Wrap-Up

- Designate someone
  - To be the primary contact for coordination and meetings
- Maintain a local planning team
  - Planning/Land Use
  - Public Works
  - Emergency Management (if interested)
- Let us know what else is going on
  - Engagement with Sea Grant, DEEP/GC3, Sustainable CT, etc.
  - Applications for funding from FEMA, NFWF, LISS







#### QUESTIONS?

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