

# RESILIENT CONNECTICUT 2.0



Overview for Town of Deep River

April 25, 2022

# Agenda

- 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

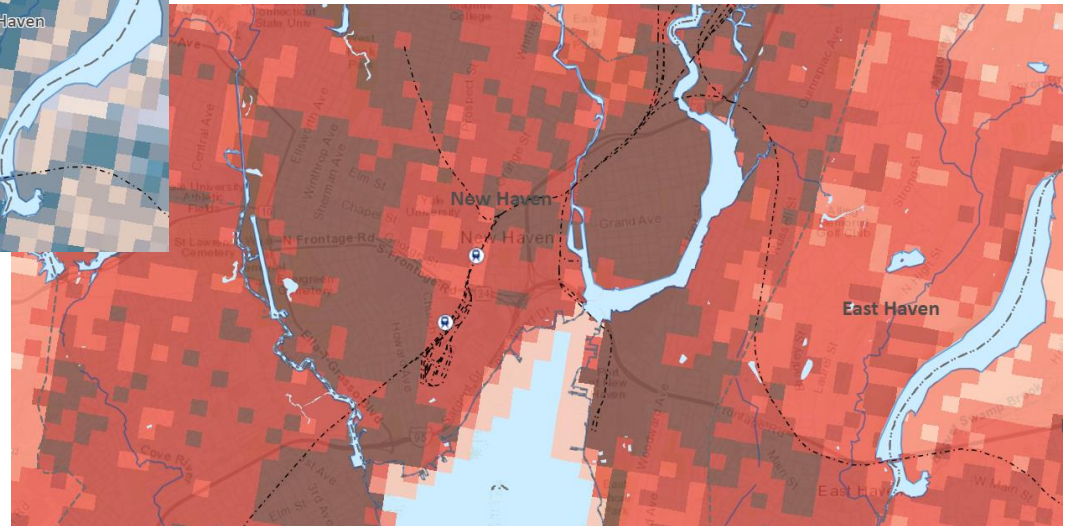
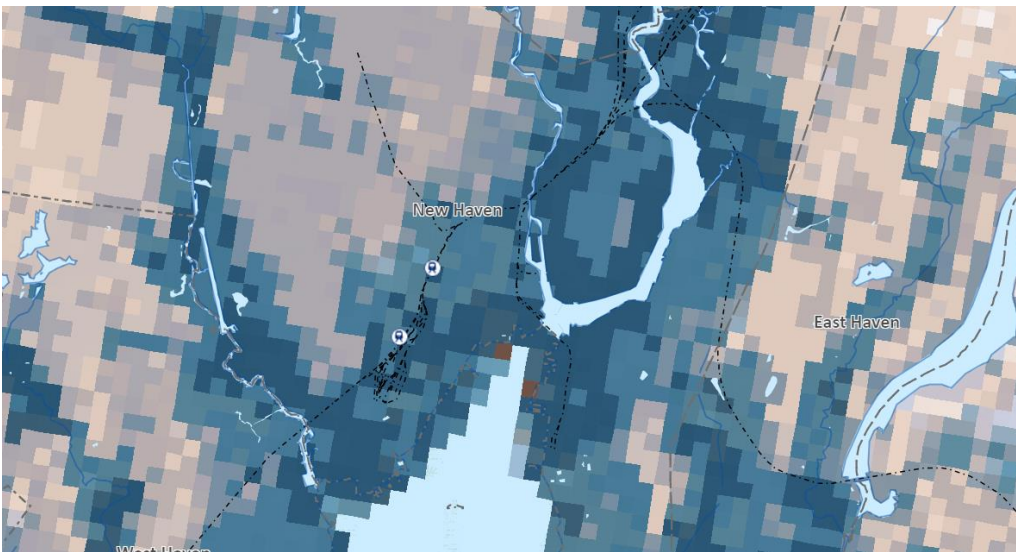


# Review of Resilient Connecticut 1.0

- 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

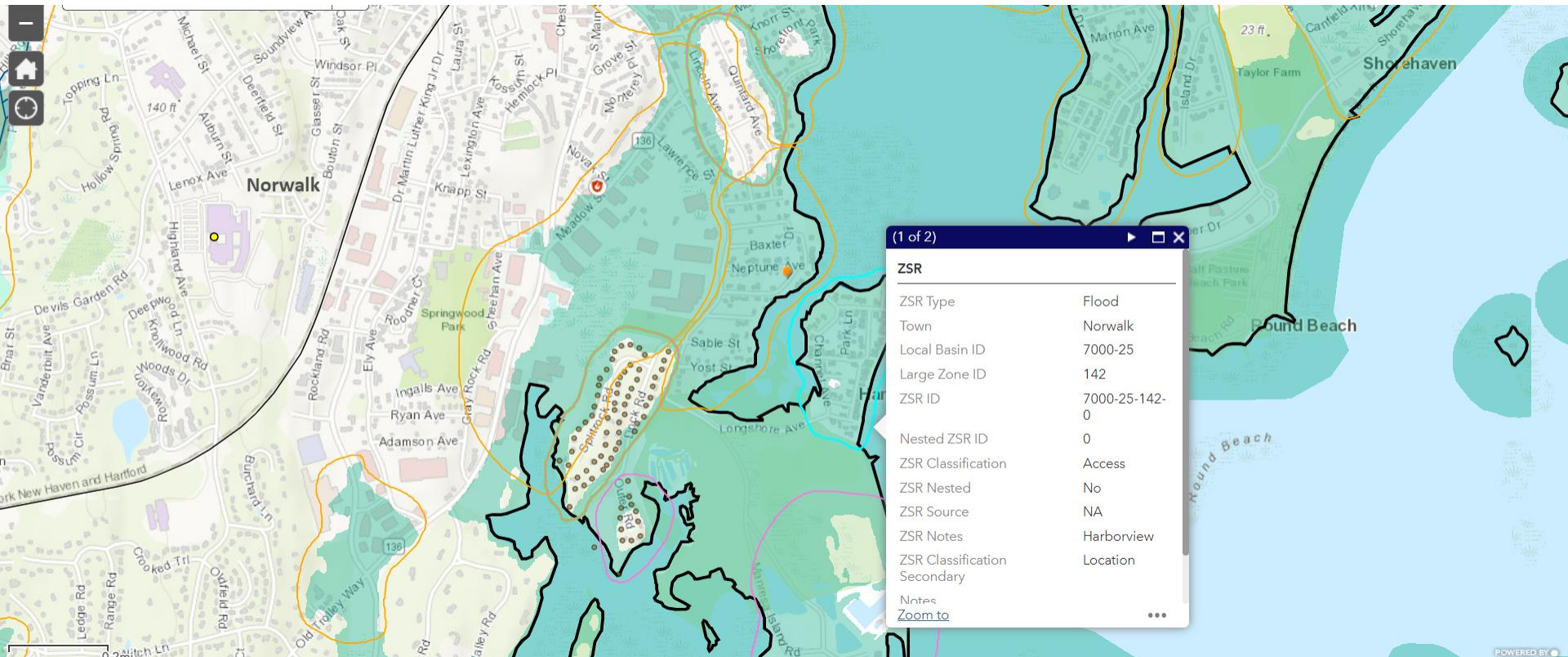
# What Resulted from Resilient CT 1.0?

- Climate Change Vulnerability Index (CCVI)



# What Resulted from Resilient CT 1.0?

- Zones of Shared Risk



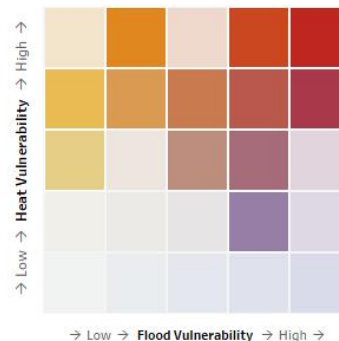
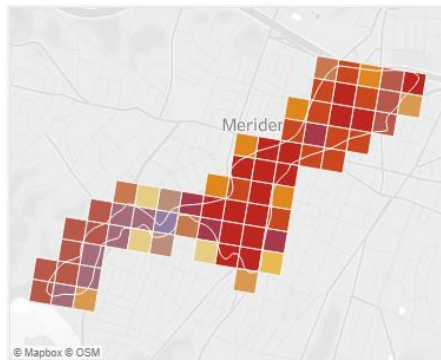
# What Resulted from Resilient CT 1.0?

- Identification of Challenges that are Opportunities

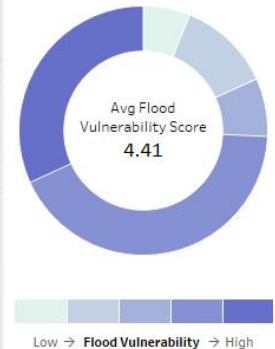
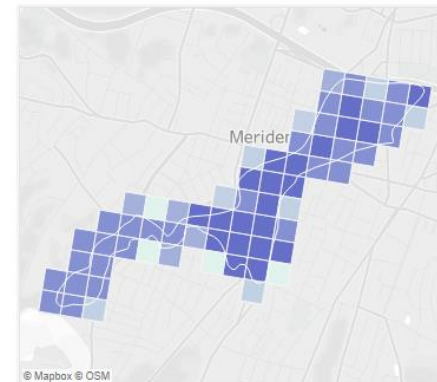
Zone of Shared Risk:  
**5206-00-249-0**  
Town: **Meriden**  
Type: **Flood,**  
Proximity



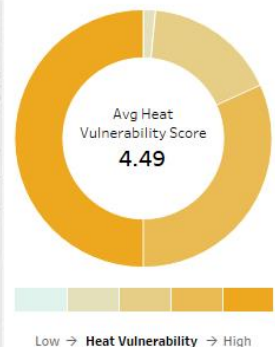
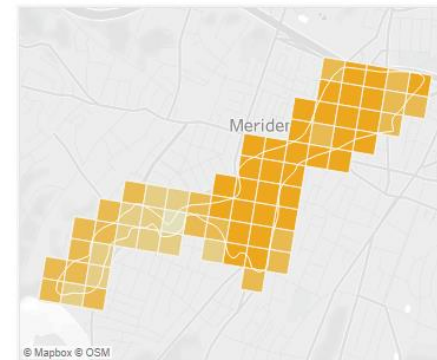
Combined Vulnerability



Flood Vulnerability



Heat Vulnerability



# What Resulted from Resilient CT 1.0?

- Identification of Challenges that are Opportunities

## Resilient Connecticut Phase II Regional Adaptation/Resilience Opportunity Areas

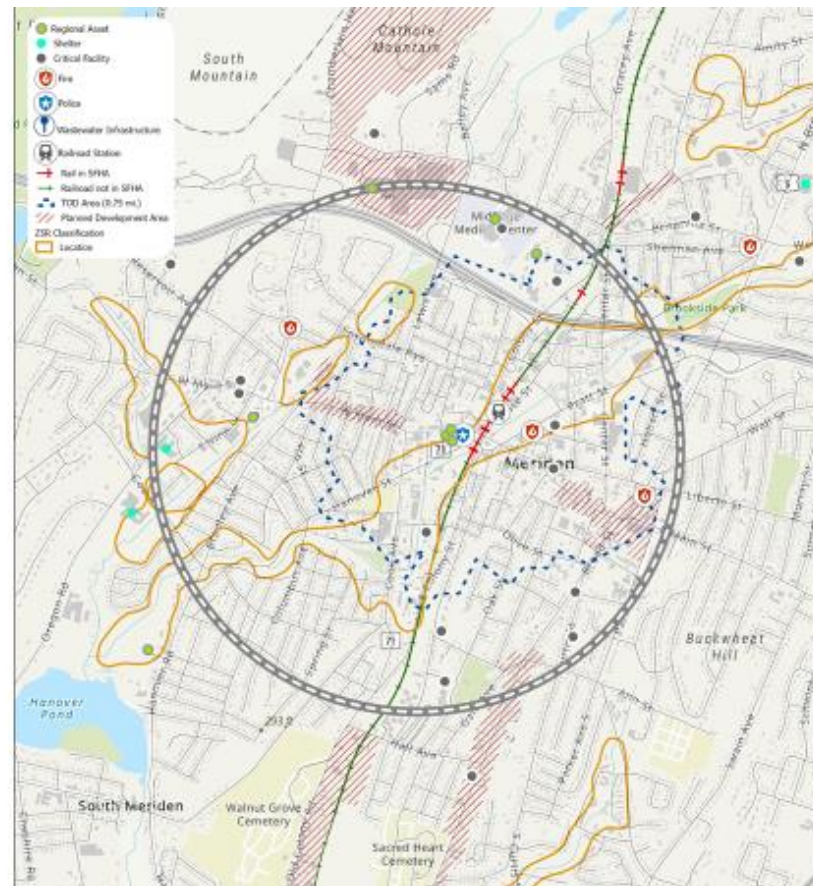
Name: Downtown Meriden  
Location: Meriden

Considerations	Characteristics of Area
Flood Vulnerability	<div><div></div><div></div><div></div><div></div><div></div></div>
Heat Vulnerability	<div><div></div><div></div><div></div><div></div><div></div></div>
Social Vulnerability	<div><div></div><div></div><div></div><div></div><div></div></div>

Critical facilities, historic resources, major transportation routes, and TOD intersect in downtown Meriden within the Harbor Brook zone of shared risk. The City of Meriden has already undertaken major flood risk reduction projects in this area, including the Meriden Green – a significant greenspace that doubles as a restored floodplain and provides a major public amenity to the city and the region. The City has additional opportunities to incorporate resilience into many redevelopment projects. There is strong heat related social sensitivity in the Meriden area, in addition to dense development, high amounts of impervious, and only few areas to provide ample shade.

City Hall  
Eversource gas facility  
Engine co. 1, 2, and 3  
Hunters Ambulance  
Police Department

Mid State Medical center  
Muravnik senior Center  
Lincoln Middle School  
Museums

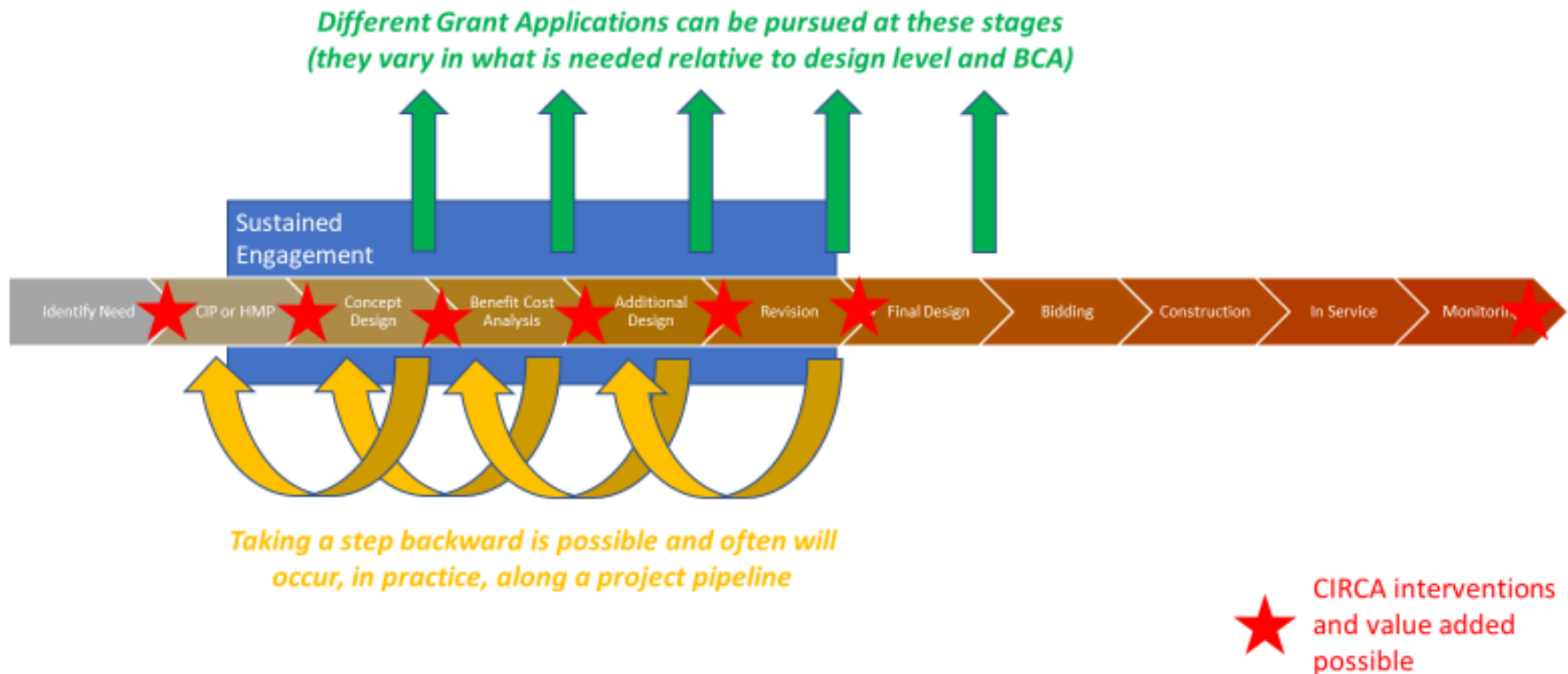


# What Resulted from Resilient CT 1.0?

- 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

# What Resulted from Resilient CT 1.0?

- 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

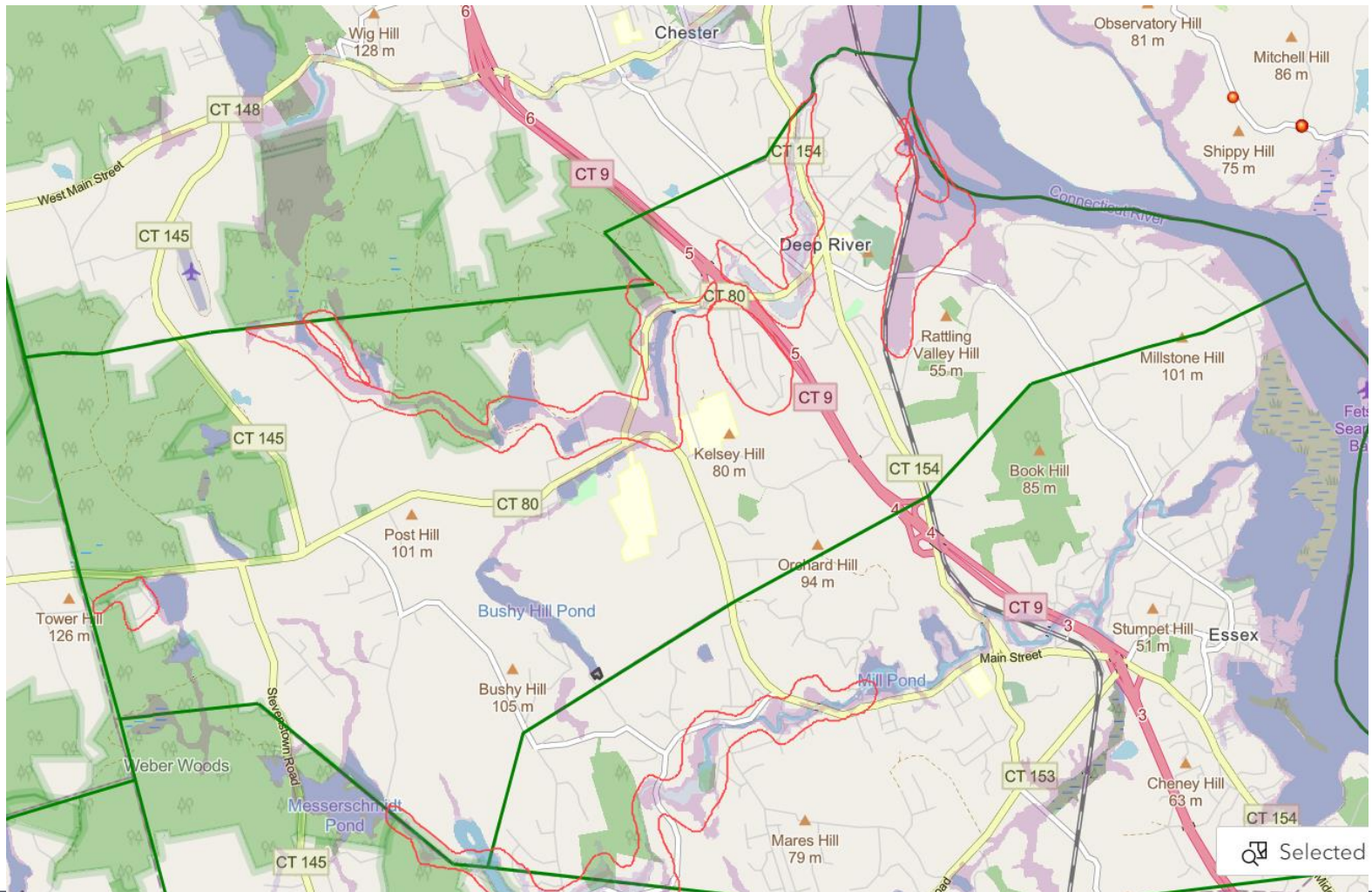


# Review of Zones of Shared Risk

- Seven Types of Flood and Erosion-Based ZSRs
    - Location
    - Proximity
    - Access
    - Natural Systems
    - Underpasses
    - Single Point
    - Sewershed
  - Resources for Mapping
    - FEMA maps (**new work maps to be issued late 2022**)
    - RiverCOG Flood Vulnerability Assessment
    - RiverCOG Hazard Mitigation Plan
- Original types piloted in Guilford Resilience Plan
- Added in Resilient Connecticut 1.0
- Additional Potential Typologies for 2.0

# ZSR Viewer

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



# Review of Hazard Mitigation Plan Actions

- The planning process was in 2019-2020
- DEMHS and FEMA review was 2020-2021
- Plan approved in spring 2021
- Deep River 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

# Review of Hazard Mitigation Plan Actions

Activity #	Goal/Objective	Activity Description	Lead Agency	Est. Cost*	Potential Funding Sources	Timeframe	Hazard (s) Addressed	STAPLEE Score/Priority	Status	Potential for Climate Adaptation and Resilience Characteristics
1	1-1	Business Recovery Plan Explore the needs of local businesses and incorporate these needs into a business recovery plan that can then be distributed to town businesses.	Select Board, EDC	\$1,000 - \$5,000	General Fund, OB	7/2021 – 6/2023	SW, TW, ET, WS, F, TI, WF, D, E, CC	4/M		Low
2	1-1	Landlord Incentives Research what kind of incentives would motivate landowners to make the additional investment that would reduce potential damages to their properties and loss of life of their tenants.	Select Board, EDC	\$1,000 - \$5,000	OB	7/2021 – 6/2023	SW, TW, WS, F, E	6/M		Medium; depends on specific needs
3	3-1	Local Social Resources In order to assist vulnerable populations during an event, these populations and their location need to be identified. Seek grants and identify a methodology to locate and track locations of these populations (i.e. elderly, disabled, non-English speaking, etc.)	EMD, SS	\$5,000 - \$10,000	Grant (HMA)	7/2021 – 6/2022	SW, TW, ET, WS, F, TI, WF, D, E, CC	4/M		Medium; depends on specific needs
4	1-1	Possible Open Space Criteria the Conservation Commission will conduct a review of storm surge inundation areas for future open space considerations.	CIWC	\$1,000-\$5,000	OB	7/2023 – 6/2025	F, CC	8/M		High; open space can provide natural protection in a future of increased flooding
5	1-1	Emergency Supply Cache Pursue the creation of emergency supply caches that include drinking water and emergency supplies such as cots for sheltering.	EMD	\$20,000 - \$50,000	Grant (HMA)	7/2023 – 6/2025	SW, TW, WS, F, E	8/H		Medium

Review of Hazard Mitigation Plan Actions										
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6	1-1	Pursue funding to develop and maintain a comprehensive, “in-house” GIS database that will provide the town with immediate capabilities of assessing areas	P&Z	\$20,000 - \$50,000	Grant (HMA)	7/2021 – 6/2023	SW, TW, ET, WS, F, TI, WF, D, E, CC	6/H		Medium; depends on future applications
7	2-1	Road Reconstruction Collaborate with Connecticut DOT to address the roadways of concern that are under the state’s jurisdiction.	DPW, Select Board	\$1,000 - \$5,000	OB	7/2021 – 6/2022	F	7/H		Medium; depends on specific needs and requires DOT collaboration
8	1-1	Land Acquisition Pursue funding for acquisitions for both open space and public park creation	CIWC, P&Z, Parks & Rec	\$50,000 - \$100,000	Grant	7/2022 – 6/2025	F, CC	8/M		High; open space can provide natural protection in a future of increased flooding
9	3-1	Public Information Develop a preparedness webpage to cover all hazards, and include information such as evacuation routes, hazard areas, shelter location, insurance information, and mitigation efforts property owners can easily pursue. Conduct outreach to RL and SRL owners to encourage review of alternatives.	EMD	\$5,000 - \$10,000	General Fund	7/2021 – 6/2022	SW, TW, ET, WS, F, TI, WF, D, E, CC	4/M		Medium

# Review of Hazard Mitigation Plan Actions

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10	3-1	Public Outreach Develop a program to inform residents on natural hazards. Action items may include: - Collecting readily available brochures and pamphlets and distribute them more widely, - Conduct annual educational outreach in schools to educate on hazards, - Educate and encourage resident on the benefits of elevating above BFE. Include drought and target outreach to socially vulnerable populations.	EMD	\$5,000 - \$10,000	General Fund	7/2022 – 6/2023	SW, TW, ET, WS, F, TI, WF, D, E, CC	4/M		Medium
11	1-1	Debris Management Plan Pursue the development of a formal debris management plan. Address the need to increase the capacity of the current debris management site.	DPW, EMD	\$1,000-\$5,000	General Fund, OB	7/2021 – 6/2022	SW, TW, WS, TI, WF	4/H		Low
12	1-1	Firefighting Capabilities Equipment needs are evaluated and assessed on a 5, 10- and 15-year planning horizon. Pursue funding for future equipment needs to ensure response capabilities, such an engine and SCBA (breathing apparatus).	FD	\$10,000-\$25,000	General Fund	7/2024 – 6/2025	WF, D	2/L		Medium
13	1-1	Benefit/Cost Analysis (RL Properties and Buy Outs)–  Evaluate opportunities for public funding of mitigation on private property where public benefits exceed the cost for RL properties or those otherwise eligible for buyout	P&Z, DPW, Select Board	Staff time	FEMA HMA grants	2025	FL	5/M		High

# 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 Deep River 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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