

RESILIENT CONNECTICUT 2.0



Overview for Town of Old Saybrook

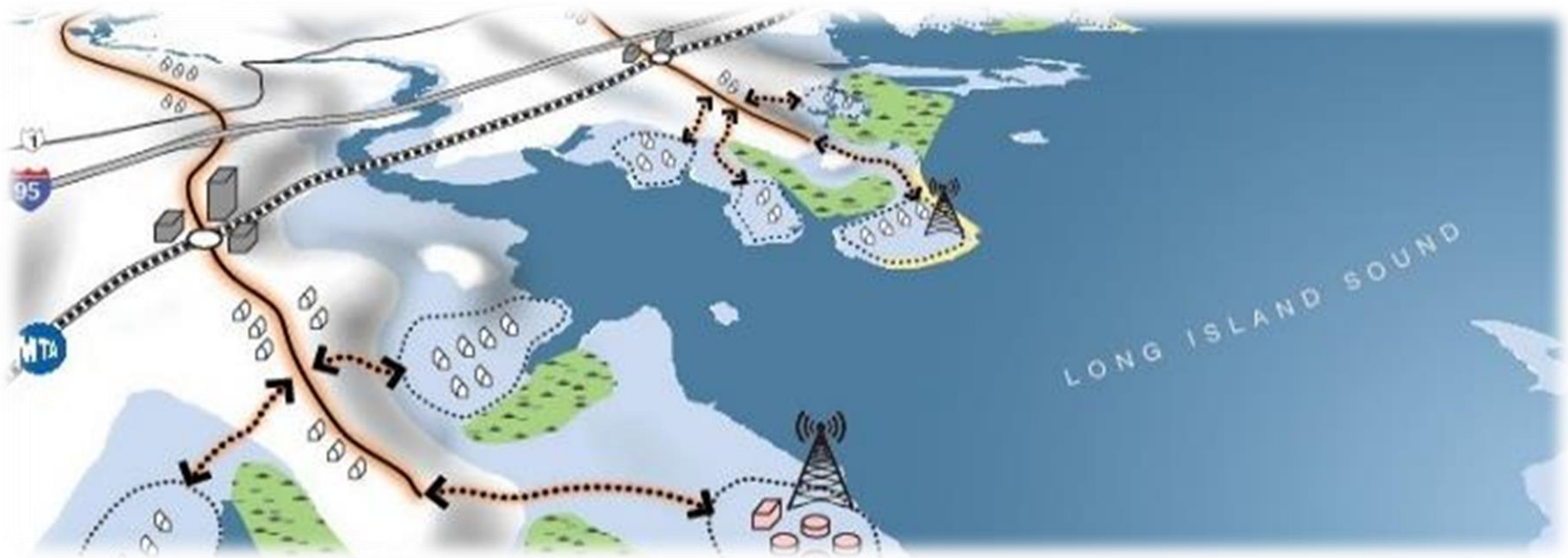
April 27, 2022

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

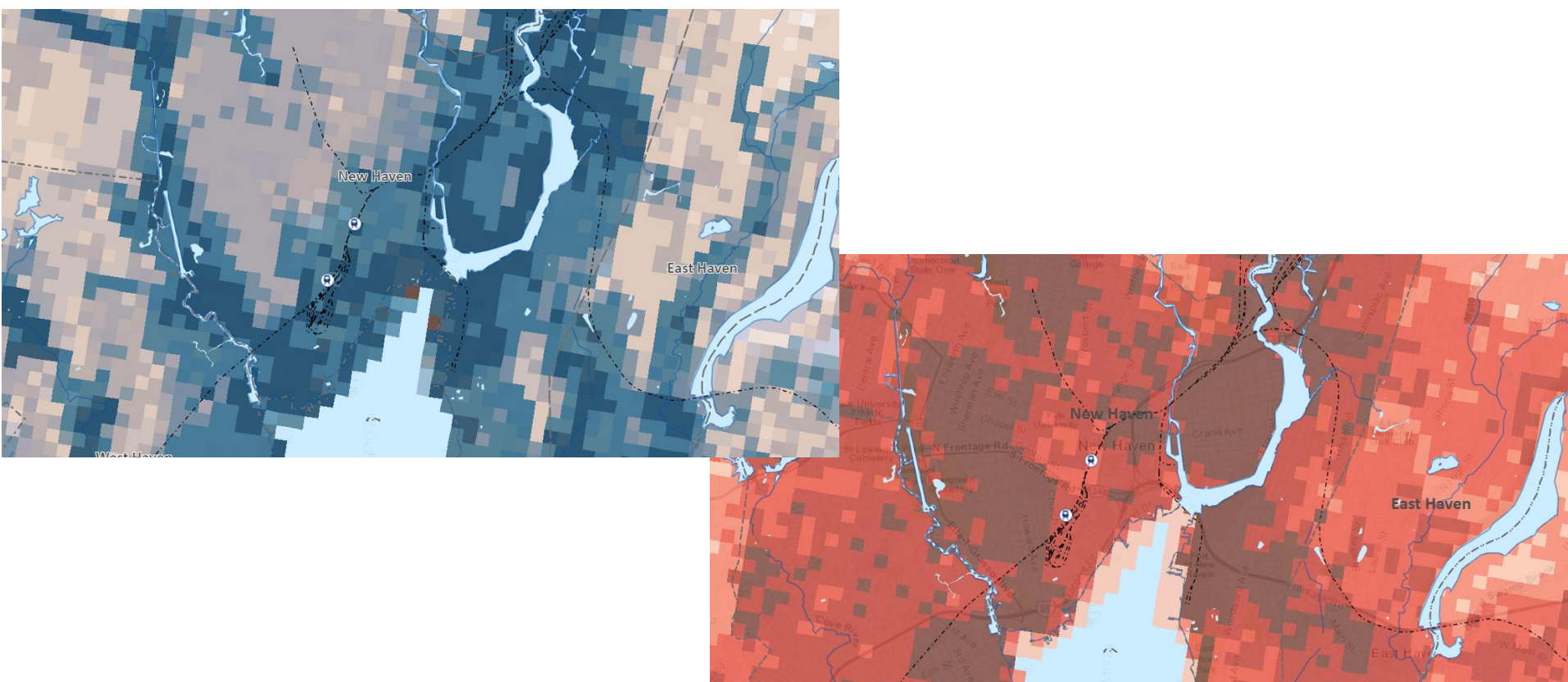


Review of Resilient Connecticut 1.0

- 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

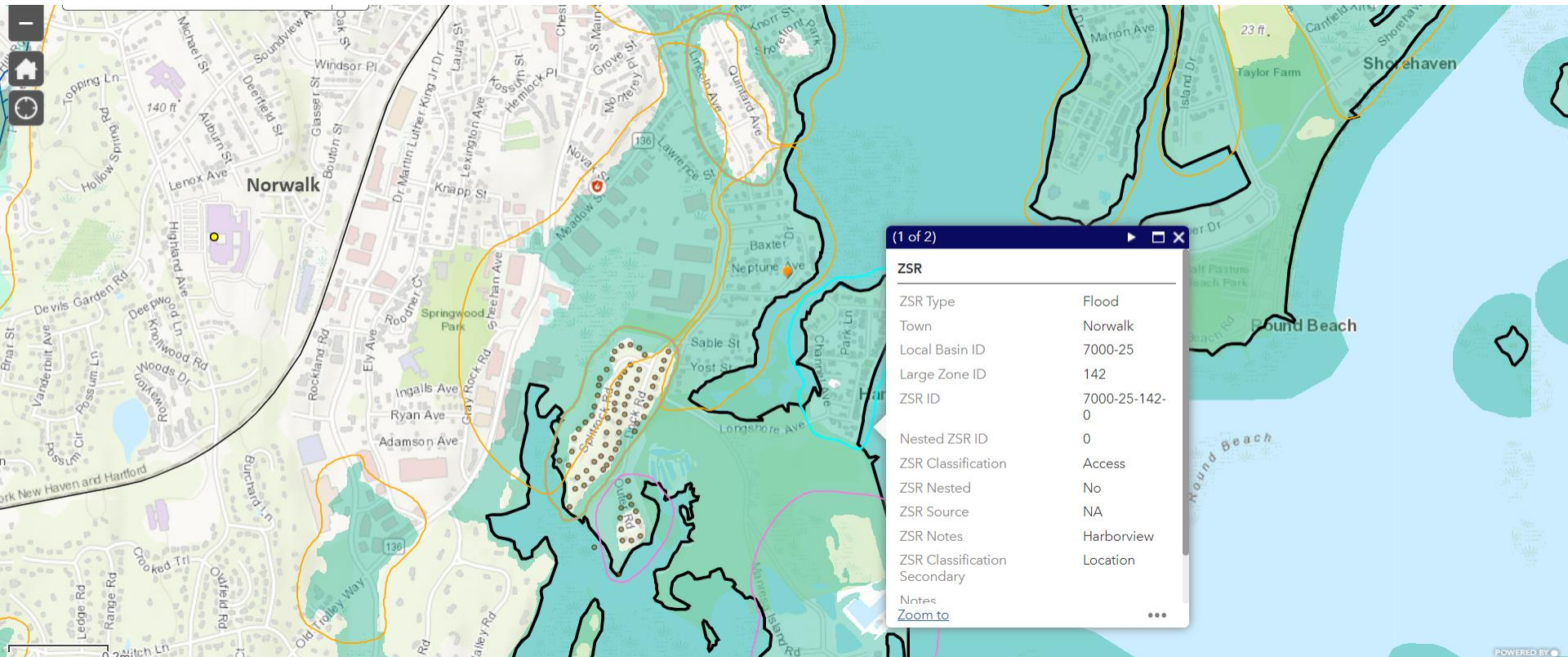
What Resulted from Resilient CT 1.0?

- Climate Change Vulnerability Index (CCVI)



What Resulted from Resilient CT 1.0?

- Zones of Shared Risk



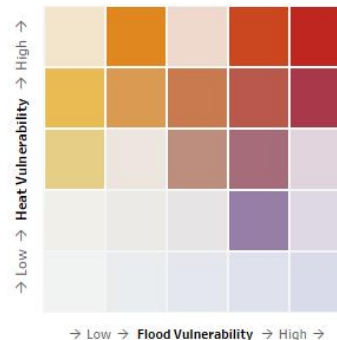
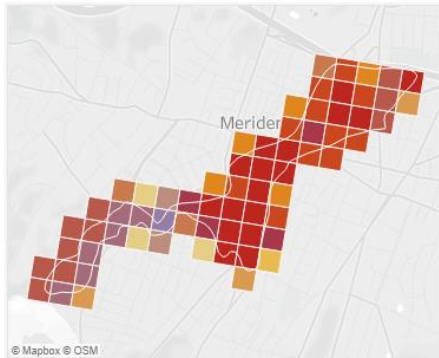
What Resulted from Resilient CT 1.0?

- Identification of Challenges that are Opportunities

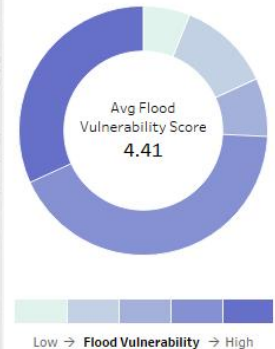
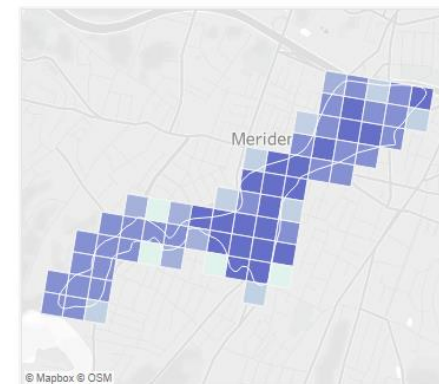
Zone of Shared Risk:
5206-00-249-0
Town: Meriden
Type: Flood,
Proximity



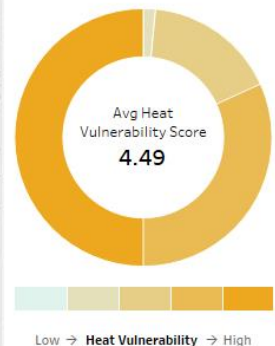
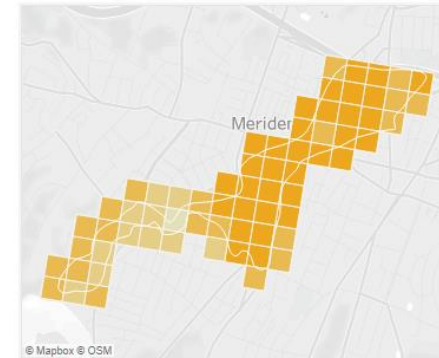
Combined Vulnerability



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

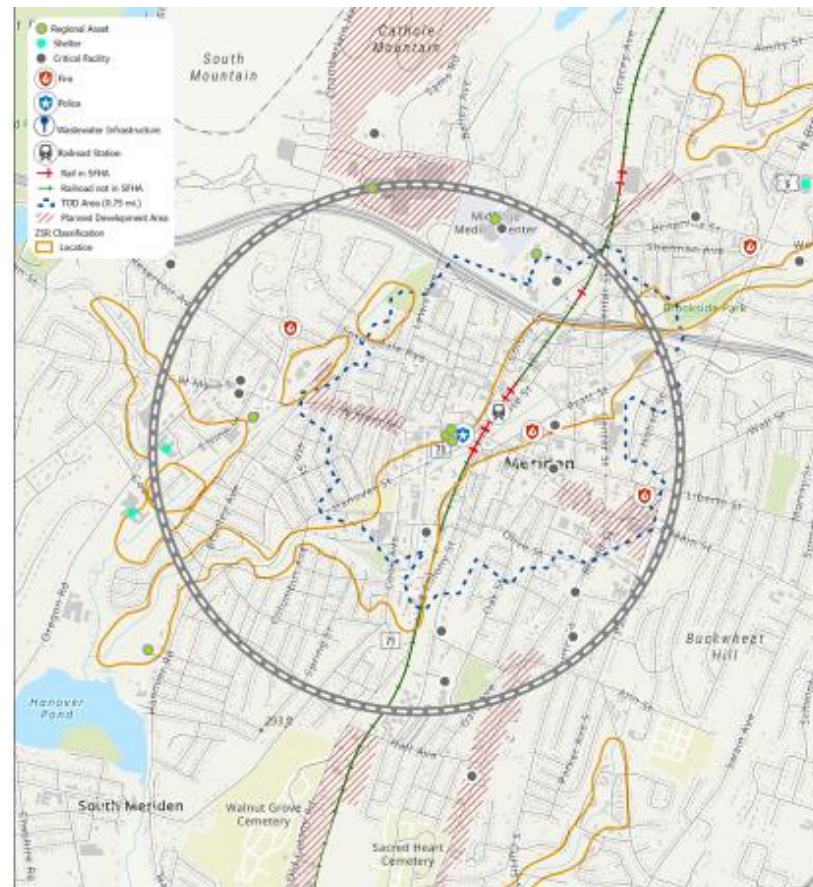
Considerations	Characteristics of Area
Flood Vulnerability	
Heat Vulnerability	
Social Vulnerability	

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

UConn
UNIVERSITY OF CONNECTICUT

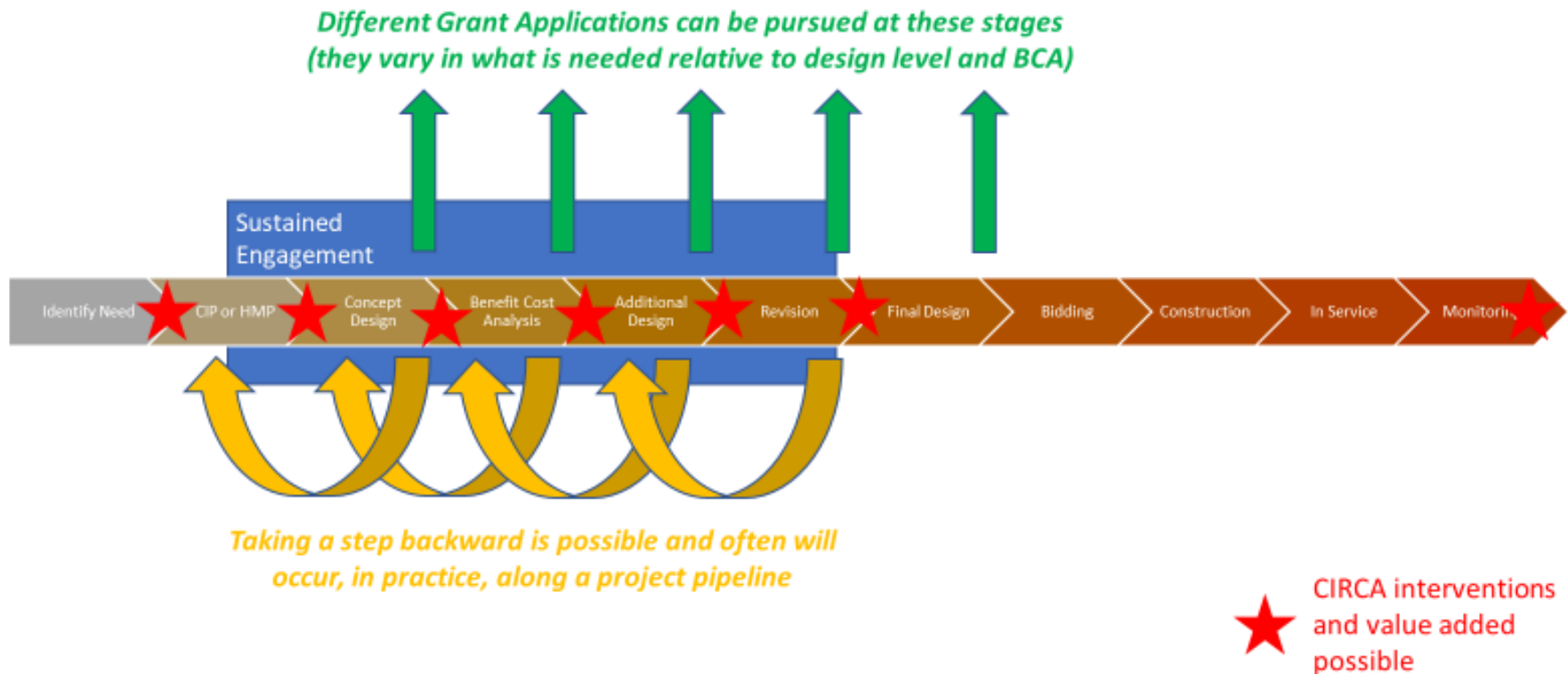


What Resulted from Resilient CT 1.0?

- 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

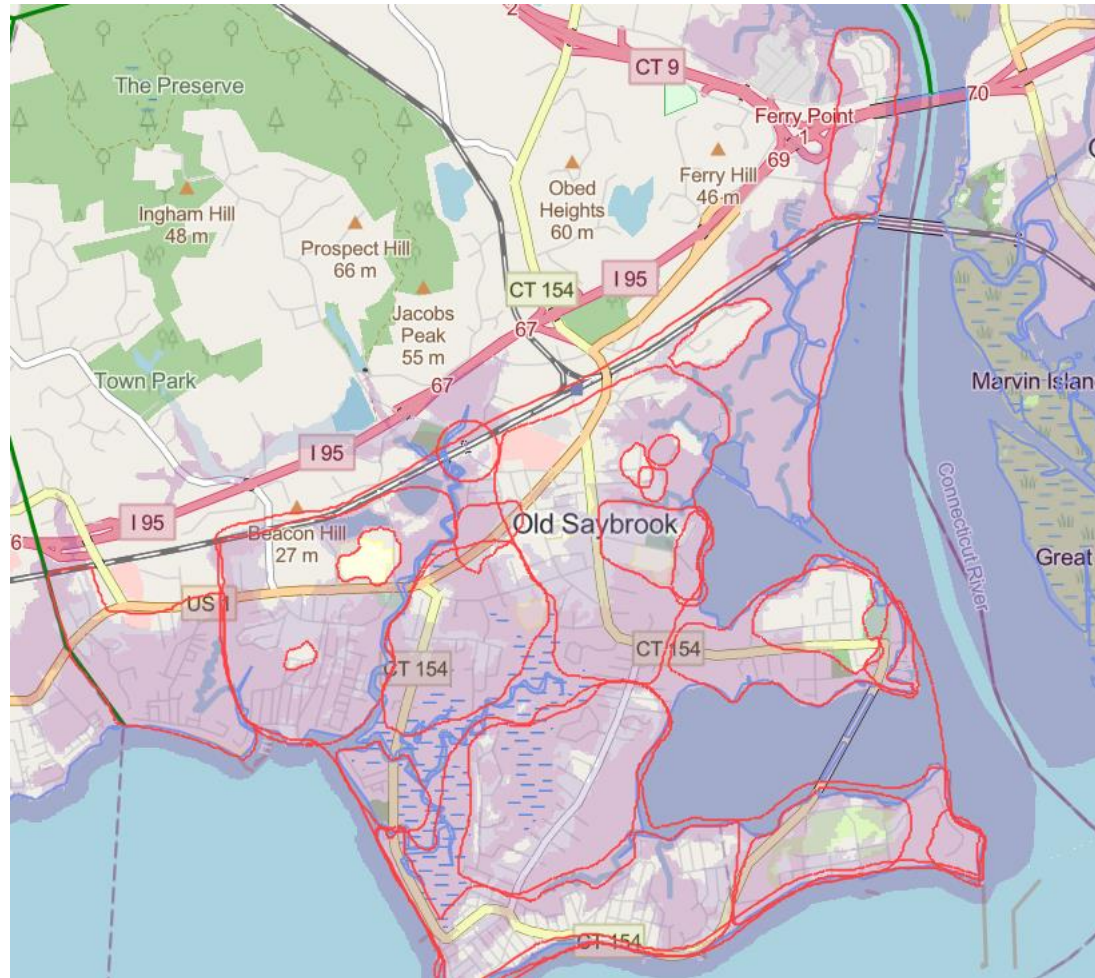


Review of Zones of Shared Risk

- 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 2018-2019
- DEMHS and FEMA review was 2019
- Plan approved in fall 2019
- Old Saybrook listed 81 actions
- Of these, 12 are of particular relevance for:
 - Applicability to address climate drivers of flooding and extreme heat
 - Applicability for the State's resilient project pipeline

Review of Hazard Mitigation Plan Actions

Action #	Activity Description	Lead Agency	Est. Cost*	Potential Funding Sources	Timeframe	Status	Potential for Climate Adaptation/ Resilience Characteristics
30	Action 30: Municipal Buildings Capabilities Assessment. Identify buildings for future investment for renovation or new construction to ensure the candidate buildings are in compliance with standards for use as a shelter.	OSB BOS/BOF	High	OSB CIP	2019-2023		High
32	Action 32: Evaluate publicly owned and managed stormwater outfalls and outlets along the shoreline of Old Saybrook and Fenwick to identify infrastructure that would benefit from the installation of backflow prevention (e.g. tide gates, check valve).	OSB BOS/BOF, DPW FEN	Low	OSB & FEN OB, OP and CIP	1 year		High
38	Action 38. Land Acquisition (Near-term): Identify and prioritize areas for the voluntary purchase of wetlands and other flood prone open space to enhance natural resources while improving coastal resiliency and flood retention.	OSB BOS/BOF, LUD, PCFEN W&B, P&Z	High	FEMA HMGP, PDM and FMAOS B CIP	Ongoing		High
42	Action 42: Dune Restoration: Implement dune restoration and marshland protection techniques for flood storage and surge protection based on the results outlined in the 2018 Coastal Community Resilience and Climate Adaptation Study.	OSB BOS/BOF, CC, LAC, DPW, DEEP FEN W&B, P&Z	High	OSB CIP DEEP	2019-2024		High

Review of Hazard Mitigation Plan Actions

Action #	Activity Description	Lead Agency	Est. Cost*	Potential Funding Sources	Timeframe	Status	Potential for Climate Adaptation/ Resilience Characteristics
45	Action 45: Road Evaluation: Evaluate roads at least annually to develop plans for improvement or elevation for emergency access and evacuation....Develop conceptual plans and prioritization for pursuing engineering, design and construction funding of roadways identified in the 2014 HMP Update. Roadways should include: 1) Banbury Crossing; 2) South Cove Causeway; 3) South Cove Causeway; 4) Plum Bank RD and Salt Meadow RD near Cornfield Pt.; 5) Shetucket Trail; 6) Fourth & Sunset Avenues; 7) Old Post RD (eastern end); 8) Shetucket Trail-to-Bellaire DR; 9) Owenco, Obed & Nehantic Trails; 10) Mohican & Red Bird Trails; 11) Bokum-to-Barley Hill Road; 12) Dwayne to Kitteridge Hill RD; 13) Rock Ridge DR to Dibble RD; 13) Niabang Ave. at Route 154; 14) Great Hammock; and15) Sequassen Ave. (Westbrook).	OSB BOS/BOF, DPW, TEFEN W&B, P&ZConnDOT	Medium	FHWAC onnDOT STIP, RTP, OSB CIP	2019 — 2023		High
46	Action 46: Per Attachment 7 of the 2018 Resilience Study pursue grant funding for engineering, design, construction (as needed) for Near-Term Roadway Improvement Candidates including: 1) Elm Street underpass and roadway toward culvert over Oyster River; 2) Main and College Streets in the low-lying areas b/w Maple Ave. and Saybrook Point; 3) Sections of Rt. 1/ Boston Post Road at lower elevations near and adjacent to the Oyster River; 4) Sequassen Ave.; and 5) sections of Maple Ave.	OSB BOS/BOF, DPW, TEFEN W&B, P&ZConnDOT	Medium to High	FHWA ConnDOT STIP RTPOSB and FEN CIPs	2019 — 2024		High
47	Action 47: South Cove: Evaluate to develop plans for 1) improving emergency access and evacua- tion; 2) options for potential dredging to improve flood storage; and 3) to evaluate the potential for creating a harbor of refuge.	OSB BOS/BOF, DPW, CC, TEFEN W&B, P&Z	Medium	and FEN CIPs	2019 - 2022		High
50	Action 50: Repetitive Loss Area Analysis (RLAA). Many repetitive loss (RL) structures have been demolished and rebuilt or elevated to higher standards than minimum FEMA requirements. Based on this ex- tensive and successful effort by the Town and residents, it is recommended to perform a formal RLAA to identify the impact to Town’s NFIP insurance rate due to repetitive loss. The results from the RLLA will help further support Town and property owner resilience and mitigation activities, including acquiring, relocating and/or flood mitigation of RL properties.	OSB BOS/BOF, LUD, DPWFEN W&B and P&Z	Low	CT DEEP,OS B & FEN OP, CIP	2019 - 2021		High

Review of Hazard Mitigation Plan Actions

Activity #	Activity Description	Lead Agency	Est. Cost*	Potential Funding Sources	Timeframe	Status	Potential for Climate Adaptation/ Resilience Characteristics
54	Action 54: INGRESS AND EGRESS: Roads. Develop a roadway improvement plan to identify specific projects, project costs and funding mechanisms. It is recommended that the plan include a strategy of improving only the portions of key roads that are subject to chronic and high probability floods in the near-term about 4 to 10 miles of road, excluding the causeway. Hold formal meetings with ConnDOT regarding improvement and resilience of State roads and bridges located within the Town limits.	OSB BOS/BOF, PC, DPWFEN W&B and P&Z	Medium	Federal Highway Administration (FHWA)CT DOT OSB CIP FEN CIP	2019 — 2024		High
57	Action 57: PUBLIC SAFETY: Flood Protection. Provide flood protection for at-risk Essential and Life-line Facilities. Attachment 4 and Attachment 7 of the 2018 Resilience Study provides flood risk details and recommendations for the Essential and Lifeline Facilities.	OSB BOS/BOF, PC	High	FEMA HMGP, PDM and FMA	2019 — 2024		High
59	Action 59. Conduct a Resilience Corridor feasibility study of the adaptation alternatives outlined in Attachment 5 of the 2018 OSB Coastal Resilience and Climate Adaptation Study.	OSB BOS/BOF, PCCoastal Resilience Management Team (CRMT)	High	OSB and FEN Ops CIRCA MRG Program FEMA FMA, PDM(Advance Assistance)	2019 - 2021		High
71	Action 71: Employ living shoreline solutions for select areas including low wave energy environments such as tidal marsh borders and river mouths.	OSB BOS/BOF, PC,LUD, DPW, Beach AssociationsFEN W&B and P&Z	Medium	FEMA HMGP, PDM and FMA CIRCA	2019 — 2024		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 Old Saybrook 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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