

RESILIENT CONNECTICUT 2.0



Overview for Town of Middlefield

April 20, 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

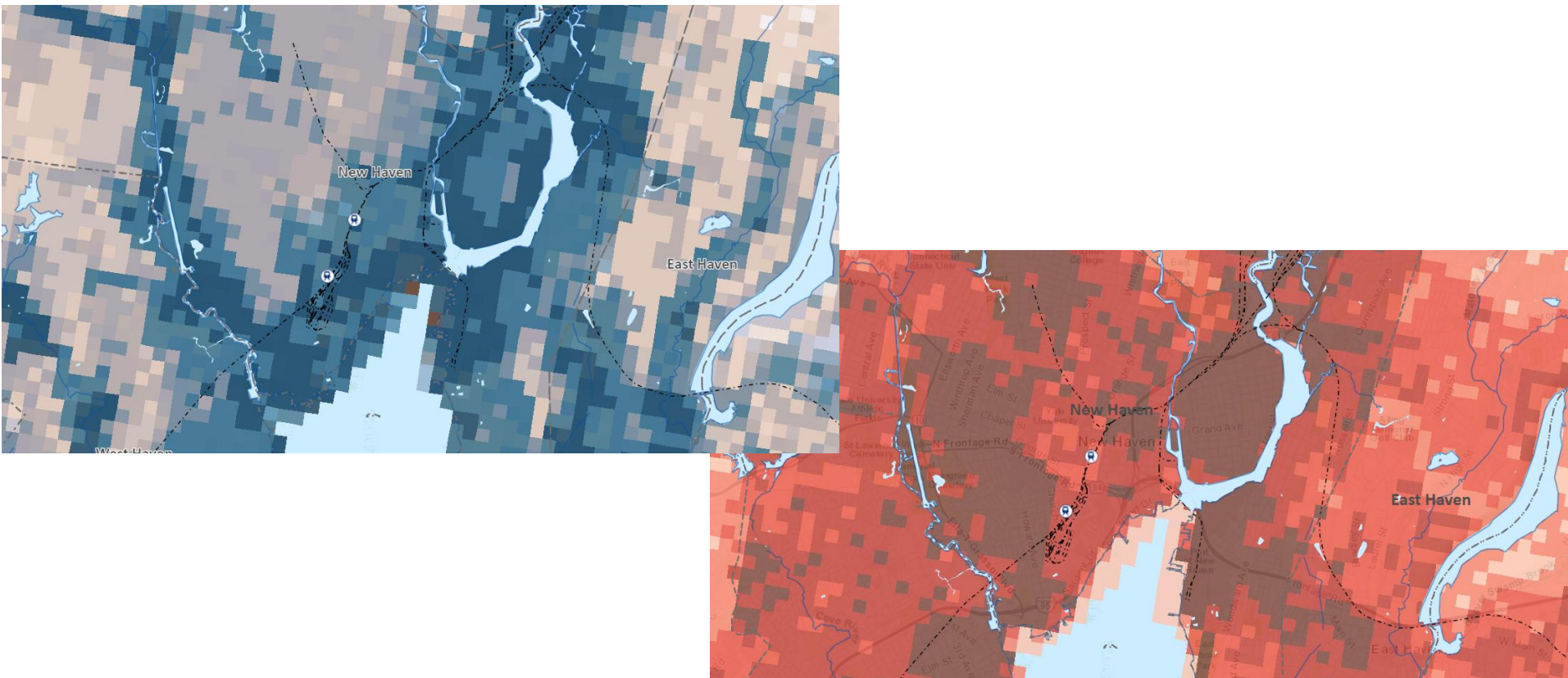


Review of Resilient Connecticut 1.0

- 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 has ended, and CIRCA is shifting into the study and concept design phase for Fairfield County and New Haven County

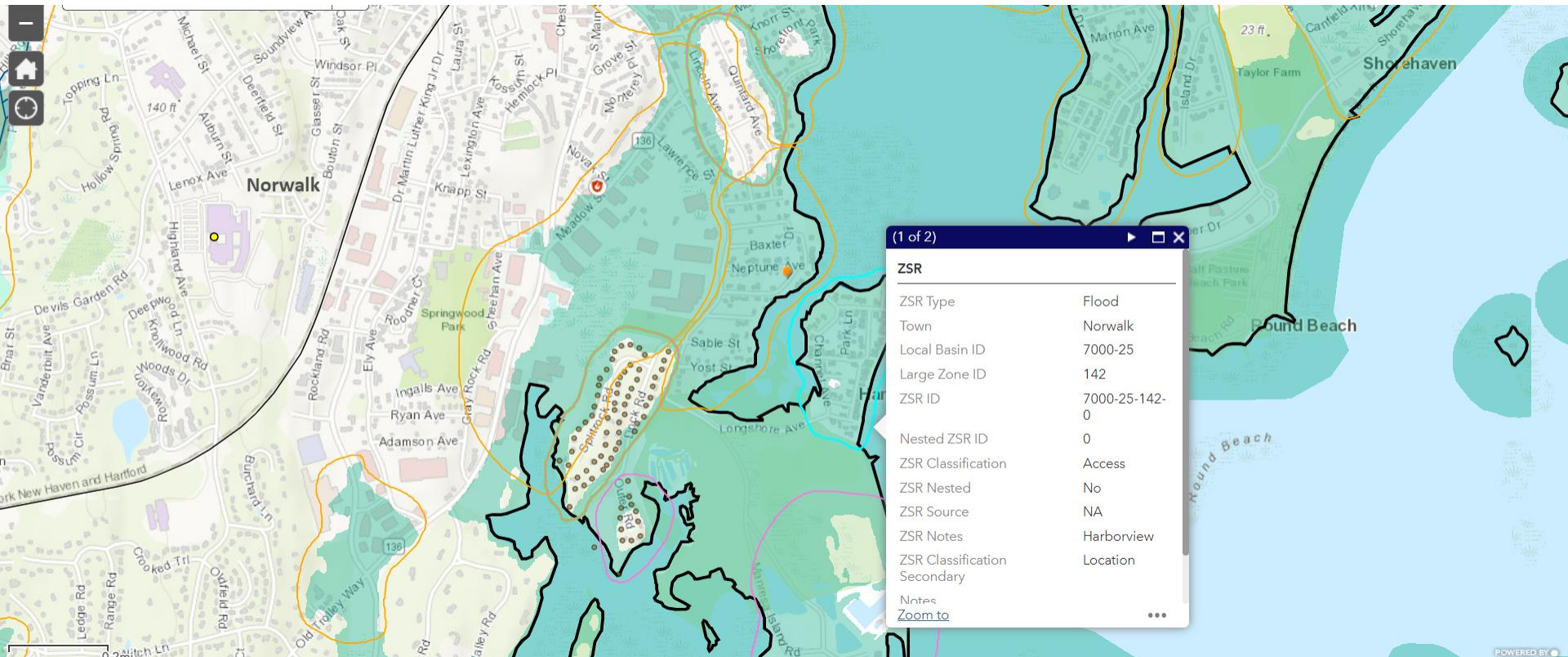
What Resulted from Resilient CT 1.0?

- Climate Change Vulnerability Index (CCVI)



What Resulted from Resilient CT 1.0?

- Zones of Shared Risk



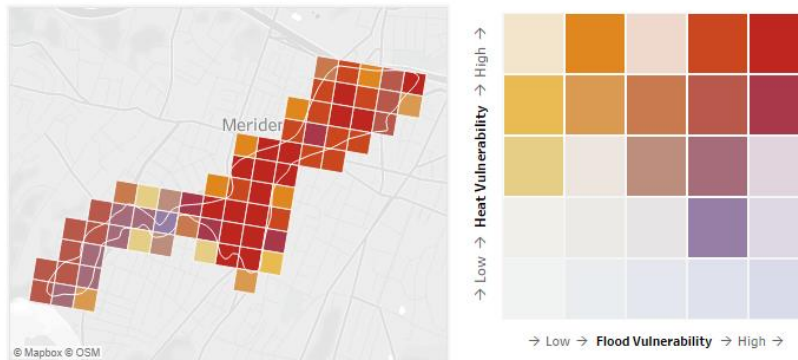
What Resulted from Resilient CT 1.0?

- Identification of Challenges that are Opportunities

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



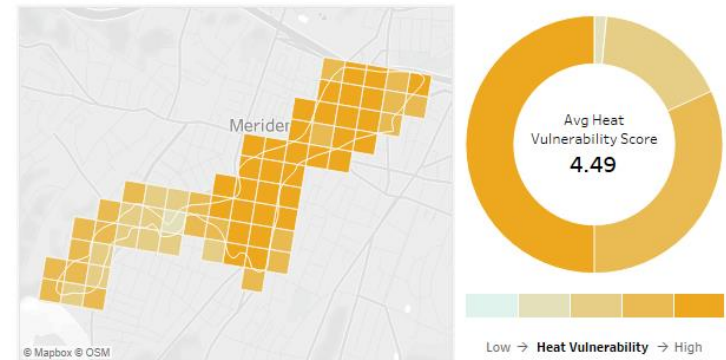
Combined Vulnerability



Flood Vulnerability



Heat Vulnerability



What Resulted from Resilient CT 1.0?

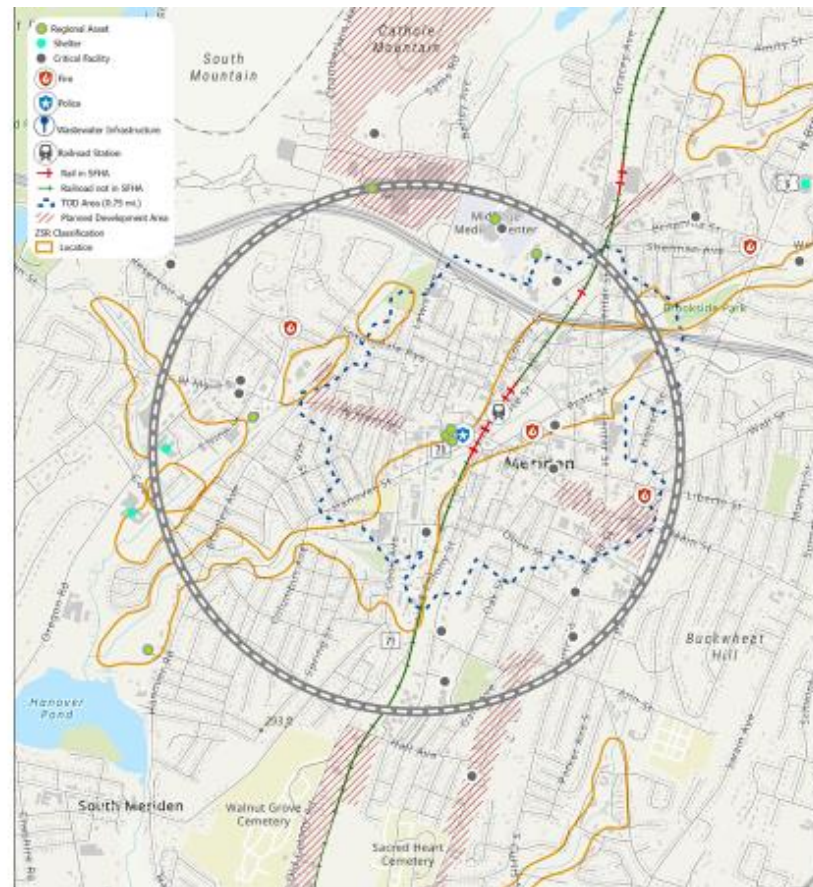
- Identification of Challenges that are Opportunities

Resilient Connecticut Phase II Regional Adaptation/Resilience Opportunity Areas

Name: Downtown Meriden
Location: Meriden

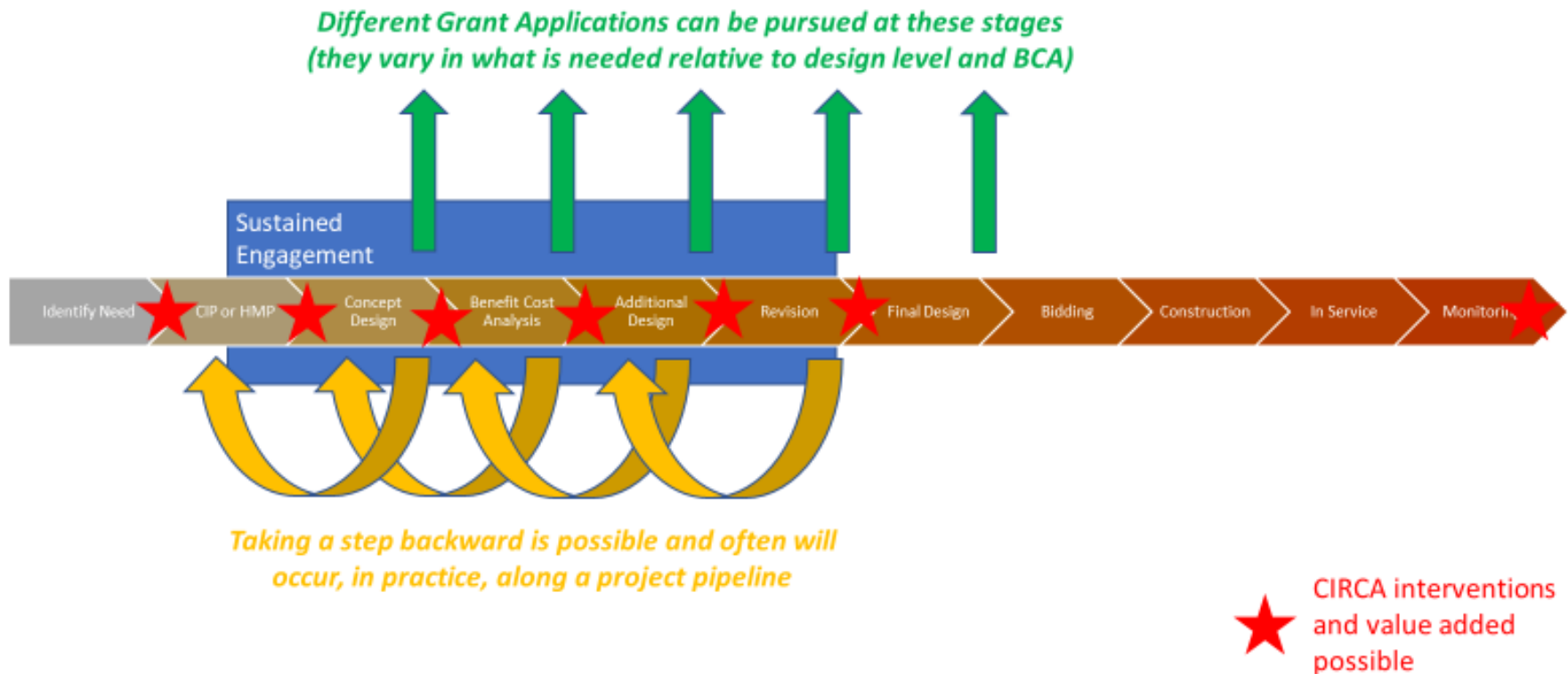
Considerations	Characteristics of Area
Flood Vulnerability	<div><div></div><div></div><div></div><div></div><div></div></div>
Heat Vulnerability	<div><div></div><div></div><div></div><div></div><div></div></div>
Social Vulnerability	<div><div></div><div></div><div></div><div></div><div></div></div>
<p>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.</p>	
<p>City Hall Eversource gas facility Engine co. 1, 2, and 3 Hunters Ambulance Police Department</p>	<p>Mid State Medical center Muravnik senior Center Lincoln Middle School Museums</p>

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What Resulted from Resilient CT 1.0?

- A recognition of the *Resilience Project Pipeline*



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; heat mitigation
 - Branford - Using railroad grade for flood protection
 - New Haven - Egress through areas of flood risk and heat mitigation for Fair Haven

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

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- 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

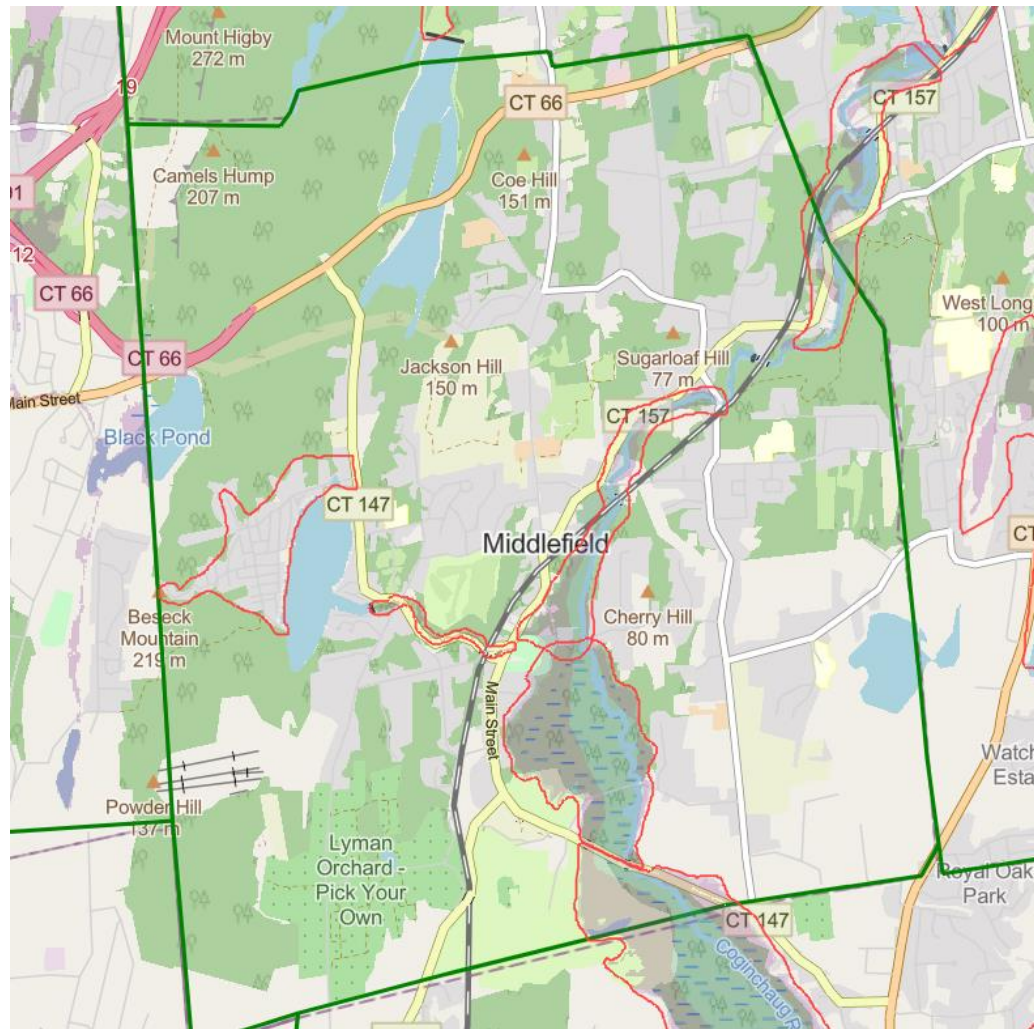


Review of Zones of Shared Risk

- 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
- Middlefield listed 7 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 for Completion	Hazard (s) Addressed	STAPLEE Score/Priority	Status	Potential for Climate Adaptation and Resilience Characteristics
1	1-1	Formalize Debris Management Plan. Update and formalize Debris Management Plan for tree debris only, to recognize Powder Ridge Ski Area or the Strickland Farm as possible sites. Also include potential sites for hazardous debris, required for DEMHS approval	Public Works	\$0-\$5,000	PDM, HMPG, CIP	2022	SW, TW, WS, TI, W, CC	4/H		Low
2	2-1	Culvert Repair and Drainage Studies. Undersized culvert, low road/roadway floods, only access road to hundreds of homes on west side of Lake Beseck, tributary to Lake Beseck. Conduct a drainage study, replace with larger culverts, raise road.	Public Works	\$10,000-\$15,000	HMGP, FMA, PDM, CIP, Op	2023-2024	F, SW, WS	11/H		High
3	2-1	Culvert Repair/Replacement. Coordinate with CT DOT to address undersized culvert, low road/roadway floods, Ellen Doyle Brook. Drainage study. replace with larger culverts.	Public Works	\$10,000-\$15,000	HMGP, FMA, PDM, CIP, OP	2022-2023	F	11/H		High
4	2-1	Town-wide Culvert Study. Complete scheduled town-wide culvert survey to identify undersized culverts and other requiring replacement to reduce flood damages and hazardous conditions.	Public Works	\$50,000-\$75,000	HMGP, FMA, PDM, CIP, OP	2021	F	11/H		High

Review of Hazard Mitigation Plan Actions

Activity #	Goal/Objective	Activity Description	Lead Agency	Est. Cost*	Potential Funding Sources	Timeframe for Completion	Hazard (s) Addressed	STAPLEE Score/Priority	Status	Potential for Climate Adaptation and Resilience Characteristics
5	1-1	Back-up Power. Provide technical assistance to gas station and deli toward identifying funding to install back up power generation.	Planning and Public Works	\$1,000 - \$5,000	CIP, OP	2021	SW, TW, WS, ET	5/H		Low
6	1-1, 3-1	Update Town Code to Include back-up power for gas stations. Codify requirement that newly permitted / constructed gas stations must have backup power generation.	Planning	\$0-\$5,000	OP	2021	SW, TW, WS, ET	5/H		Low
7	1-1, 3-1	Drought Management Plan. Develop a drought management plan to address water conservation and the risk of drought and disease on commercial agriculture in Middlefield. Should reference updated State of CT Water Plan	Planning	\$10,000-\$25,000	HMGP	2022-2023	D	4/M		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 Middlefield 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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