

# Resilient Connecticut Phase II

## Workshop to Discuss Potential Regional Adaptation/Resilience Opportunity Areas

- SCRCOG  
✓ May 24, 2021
- MetroCOG  
✓ May 25, 2021
- WestCOG  
✓ May 26, 2021
- NVCOG  
✓ May 27, 2021



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



### Team Present Today

Individual	Role
Victoria Vetre, CFM, SLR Consulting	Presenter and Breakout Room Facilitator
David Murphy, PE, CFM, SLR Consulting	Presenter and Breakout Room Facilitator
Scott Choquette, CFM, Dewberry	Breakout Room Facilitator
Johanna Greenspan-Johnston, Dewberry	Breakout Room Facilitator
Noah Slovin, CFM, SLR Consulting	Zoom Logistics and Breakout Room Controller
John Truscinski, CFM, CIRCA	Facilitator
Joanna Wozniak-Brown, PhD, CIRCA	Facilitator
Yaprak Onat, PhD, CIRCA	Facilitator
Katie Lund, CIRCA	Facilitator
Alex Felson, PhD, for CIRCA	Facilitator

## Workshop Objectives

- **Review Methods to Identify Potential Opportunities**
  - ✓ What is a potential adaptation/resilience opportunity area?
  - ✓ How did we link vulnerability mapping with zones of shared risk and regional assets/infrastructure?
- **Breakout Rooms for Discussion about Specific Opportunity Areas**
  - ✓ What does the general profile of areas look like in the region or community that you represent?
  - ✓ Do you have any thoughts about specific areas?
- **Report Out**
  - ✓ What is your impression of the potential opportunity areas?
  - ✓ Did we miss anything?
- **Open Discussion and Next Steps**
  - ✓ What types of adaptation and resilience projects could you imagine in these areas?
  - ✓ How can you participate in the next few steps?

## Workshop Schedule

- Review Methods to Identify Potential Opportunities
  - ✓ 1:05 to 1:40 PM
- Breakout Rooms for Discussion about Specific Opportunity Areas
  - ✓ 1:45 to 2:30 PM
- Report Out
  - ✓ 2:30 to 2:40 PM
- Open Discussion and Next Steps
  - ✓ 2:40 to 3:00 PM

# Review Methods to Identify Potential Opportunities



## Getting Oriented

### *What is a Potential Regional Adaptation/Resilience Opportunity Area?*

- **Potential**
  - ✓ Something that has been identified through analysis of vulnerabilities and risks, but we cannot know yet whether this will make it to the end
- **Regional**
  - ✓ Of significance to more than one community; of significance to a COG or the State
- **Adaptation**
  - ✓ Changing over time to address the challenges caused by climate change
- **Resilience**
  - ✓ The ability to prepare, withstand, recover, and adapt
- **Opportunity**
  - ✓ Something positive we can do where a climate-related challenge exists
- **Area**
  - ✓ More than a handful of parcels; part of a community, municipality, or neighborhood

## Getting Oriented

### *How Did We Get Here? Recap of Discussion Opportunities*

- **Summit of November 2020**
  - ✓ Presented the Results of Resilient Connecticut Phase I
  - ✓ Transition into Phase II of Resilient Connecticut
- **COG-Based Meetings – fall 2020 through Present**
  - ✓ Monthly updates to COGs and COG committees
- **January/February 2021 Workshops**
  - ✓ Climate change vulnerability assessment and climate change vulnerability index (CCVI)
  - ✓ Zones of shared risk
- **Webinar of March 2021**
  - ✓ Update on the vulnerability assessment and CCVI

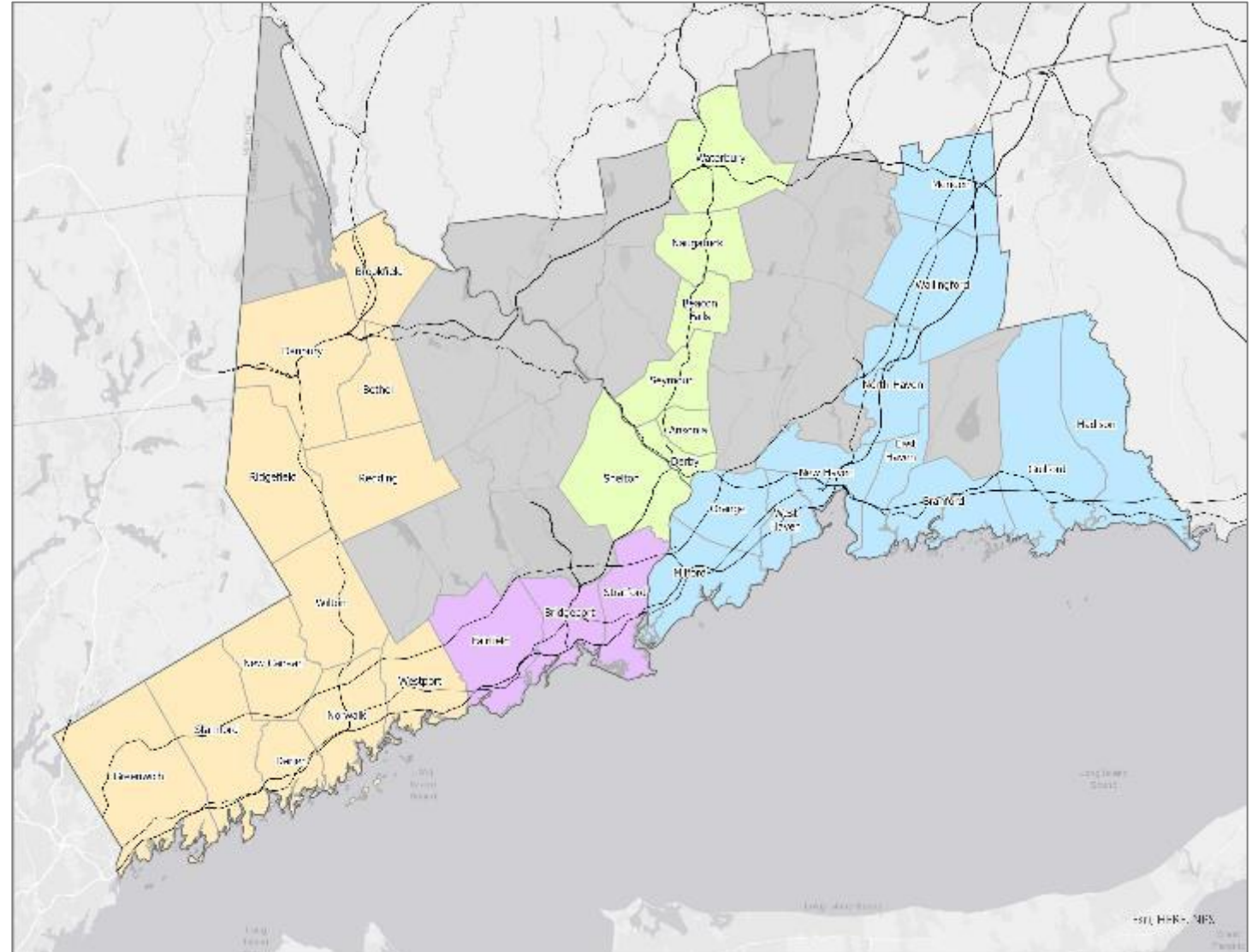
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

### Getting Oriented

#### *Area of Focus*

- Fairfield and New Haven Counties
- Communities with Transit-Oriented Development (TOD) Potential
- Communities with “Resilience Corridor” Potential





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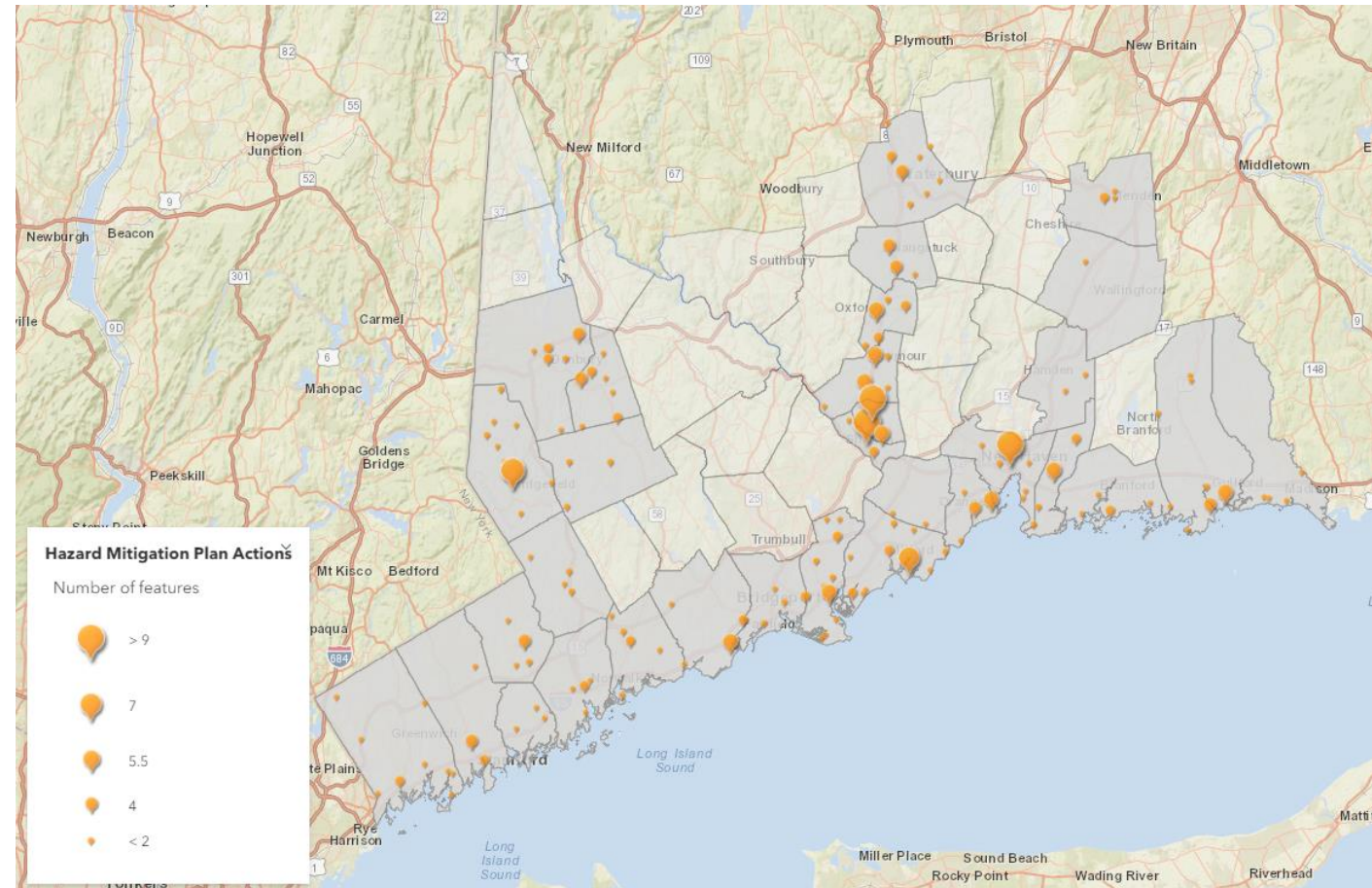
## Potential Regional Adaptation/Resilience Opportunity Areas



### Getting Oriented

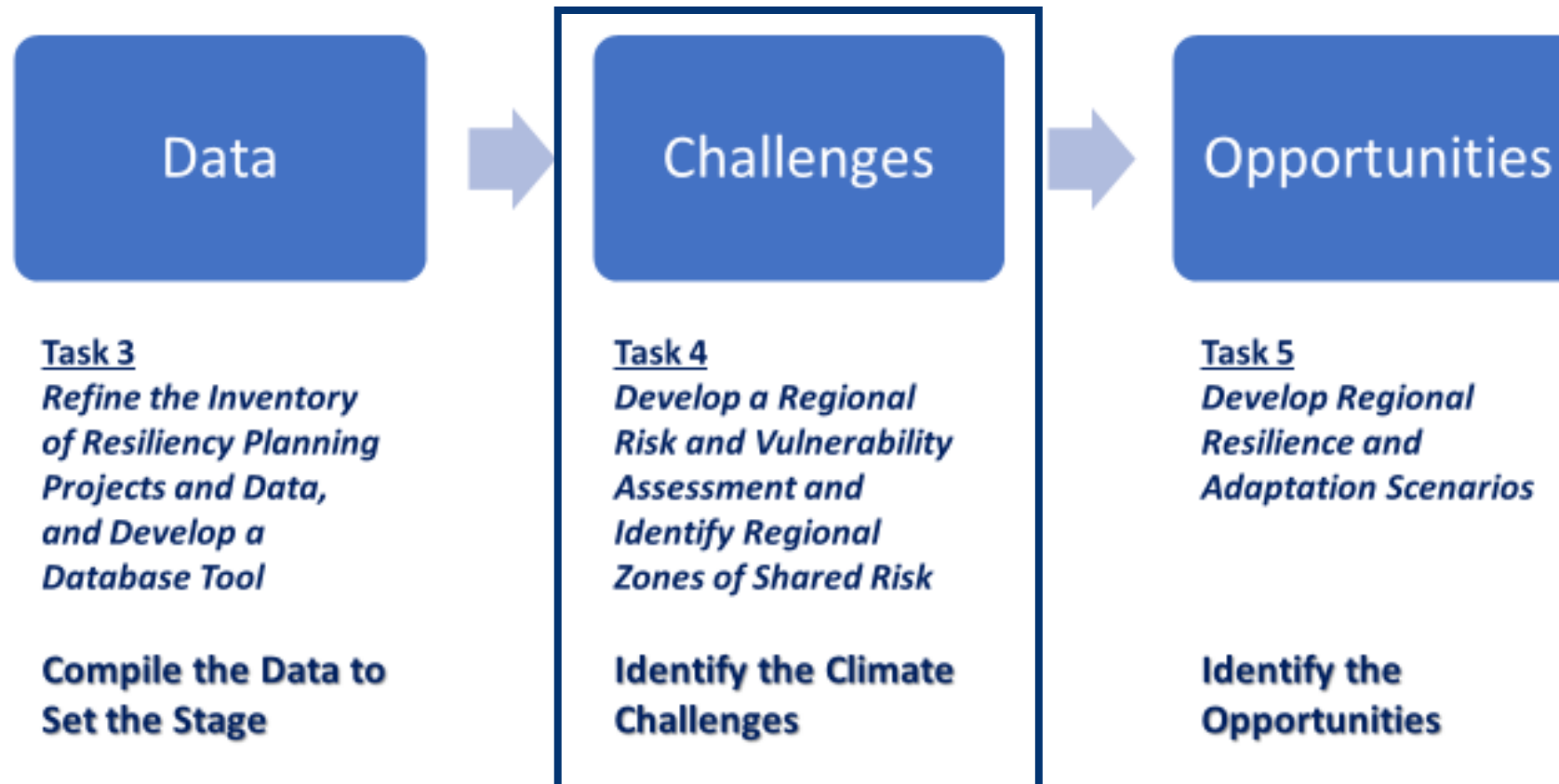
### *Not Starting from Scratch*

- Worked with COGs to collect data
- Resilient Connecticut builds on other planning efforts such as Hazard Mitigation Plans, POCDs, and Community Resilience Building workshops



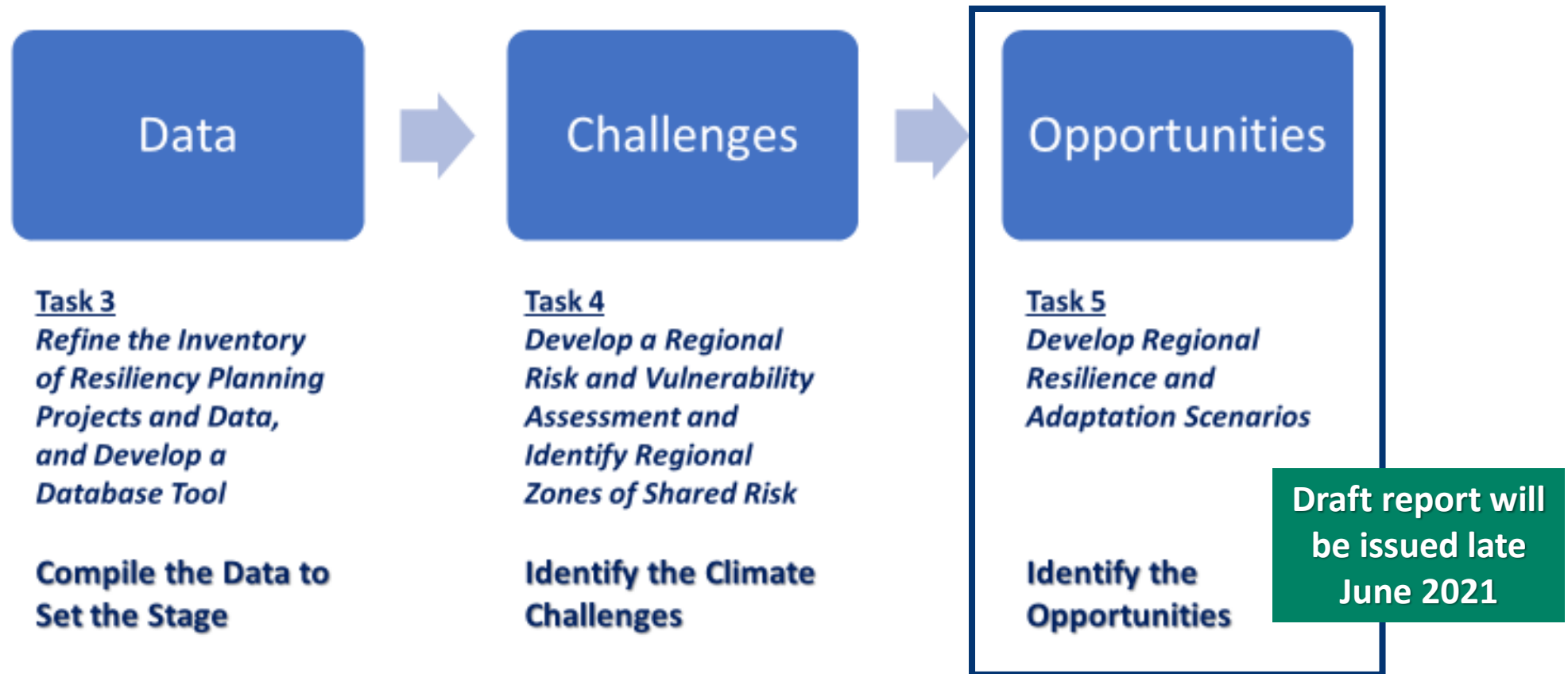
## Getting Oriented

### *Transition from Challenges to Opportunities*



## Getting Oriented

### *Transition from Challenges to Opportunities*



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



## Getting Oriented

### *Terms to Understand*

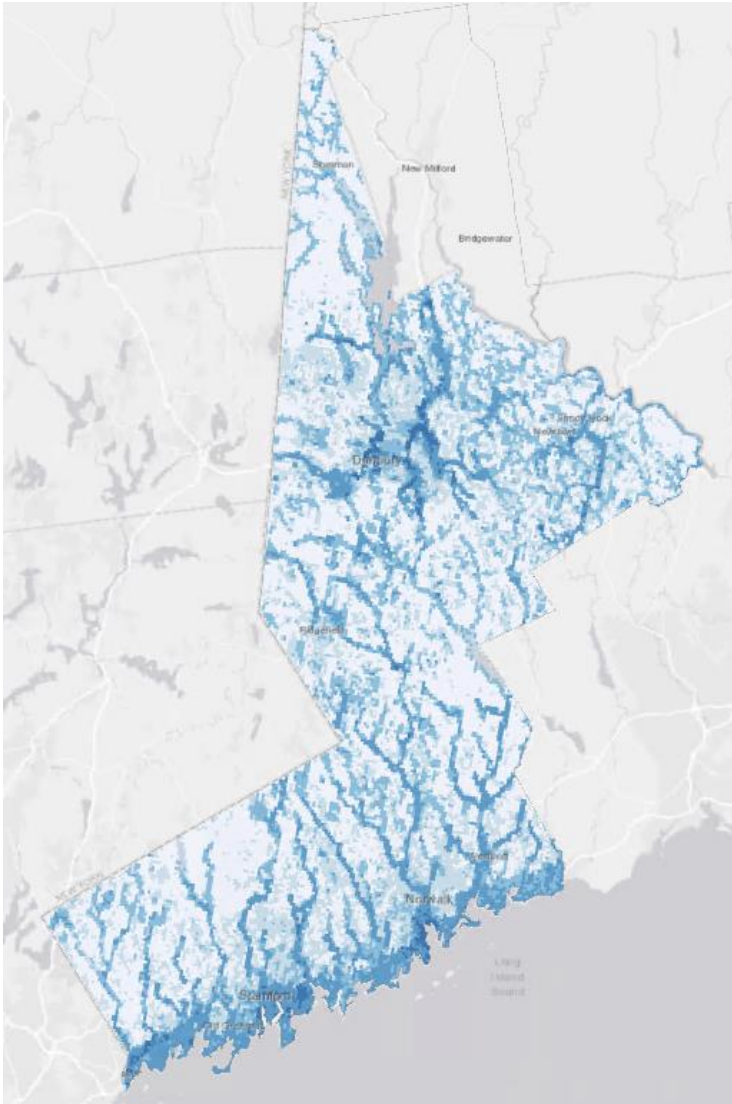
Considerations	Definition
Flood Vulnerability	A contributor to climate risk associated with flooding, this is a combination of flood exposure, flood sensitivity, and flood adaptive capacity. Examine in the CCVI viewer.
Heat Vulnerability	A contributor to climate risk associated with heat, this is a combination of heat exposure, heat sensitivity, and heat adaptive capacity. Examine in the CCVI viewer.
Social Vulnerability	Factors such as poverty and lack of access to transportation that may weaken a community's ability to prevent losses during a disaster.
Zone of Shared Risk	Areas that face common challenges already, or caused by climate change, and therefore risks are shared among or between groups of people that may have different perspectives and priorities for resilience.
Regional Asset or Infrastructure	Asset or Infrastructure that serves more than one community; or is important to a region.
Area of Planned Development Present	Areas identified in POCDs and RPOCDs for a variety of development and redevelopment.
Federal Opportunity Zone	Opportunity Zones provide tax benefits to people and companies with the goal of investing in urban areas.
Transit-Oriented Development Area	Supports creation of compact, pedestrian-oriented, mixed-use communities centered around train or transit systems.

# Resilient Connecticut Phase II

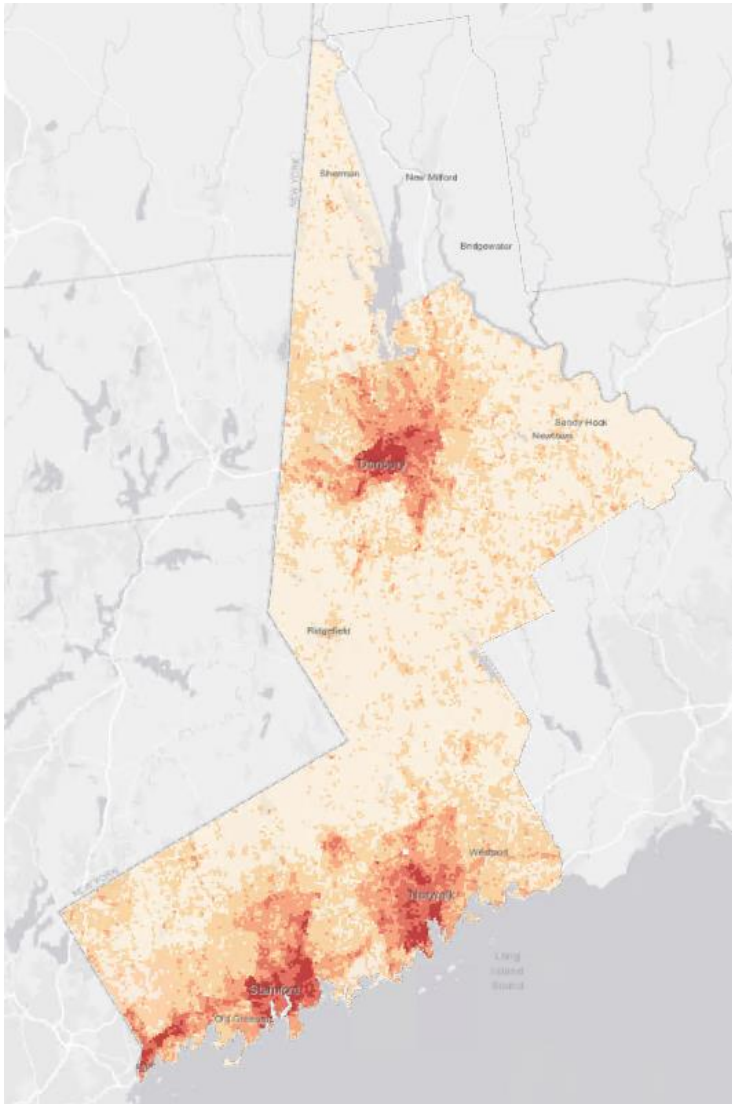
## Potential Regional Adaptation/Resilience Opportunity Areas



Flood Vulnerability



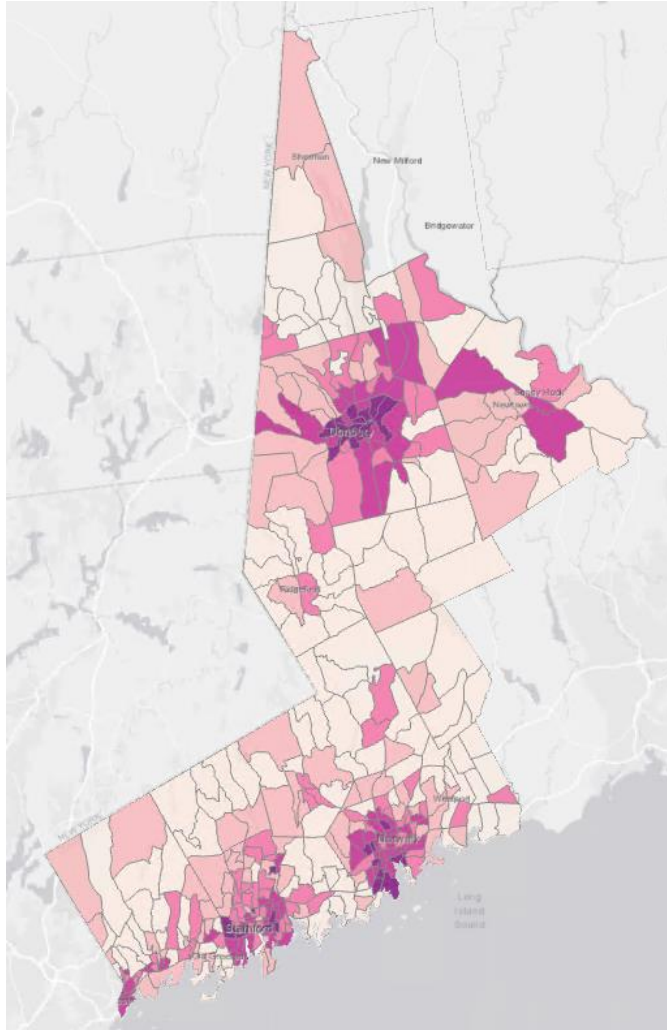
Heat Vulnerability



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

Social Vulnerability Index



Zones of Shared Risk



## Examples of Regional Assets and Infrastructure

### *Regional Assets and Infrastructure that Serve Numerous Communities by Spanning the Region*

- Amtrak
- MetroNorth
- CTRail
- Interstate Highways
- Merritt/Wilbur Cross Parkway
- Route 8
- Route 7
- Route 1
- Major Water Systems such as Aquarion Water Company and Regional Water Authority
- GHNWPCA and other Major Sewer Systems
- Eversource and UI transmission

And more...

### *Regional Assets that Serve Numerous Communities from One Location*

- State facilities
  - State facilities like courthouses, public safety facilities, State police facilities
  - CT DOT highway garages
- Hospitals
- Major Ports
  - New Haven
  - Bridgeport
  - Stamford
- Airports
- Danbury Mall Mass Distribution Facility and similar
- UConn branches
- Colleges in the CSCU System such as Gateway CC and SCSC

And more...

### *Regional Economic Assets that Serve Numerous Communities from One Location*

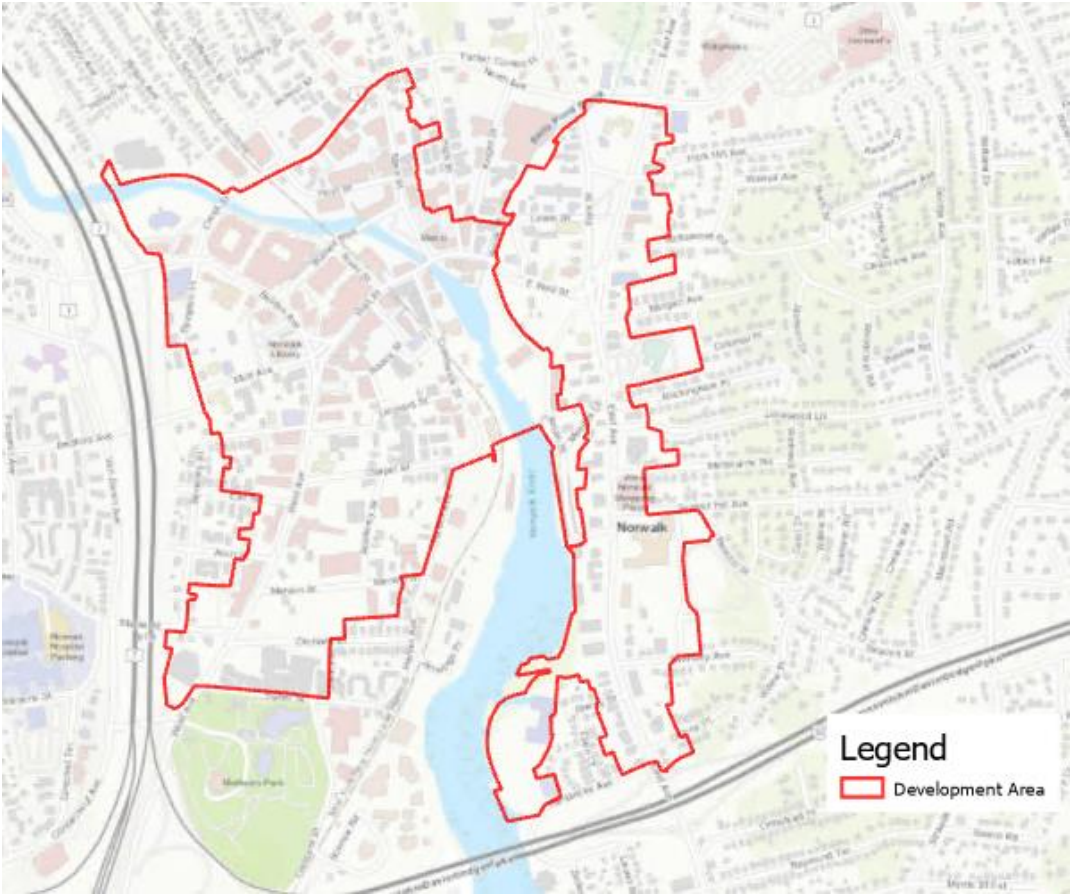
- Major employers
- Major employment areas
- Large tourist sites and museums
- Historic districts
- Long Wharf area
- Steel Point area
- Retail shopping malls

And more...

# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

Area of Planned Development



Transportation-Oriented Development Area





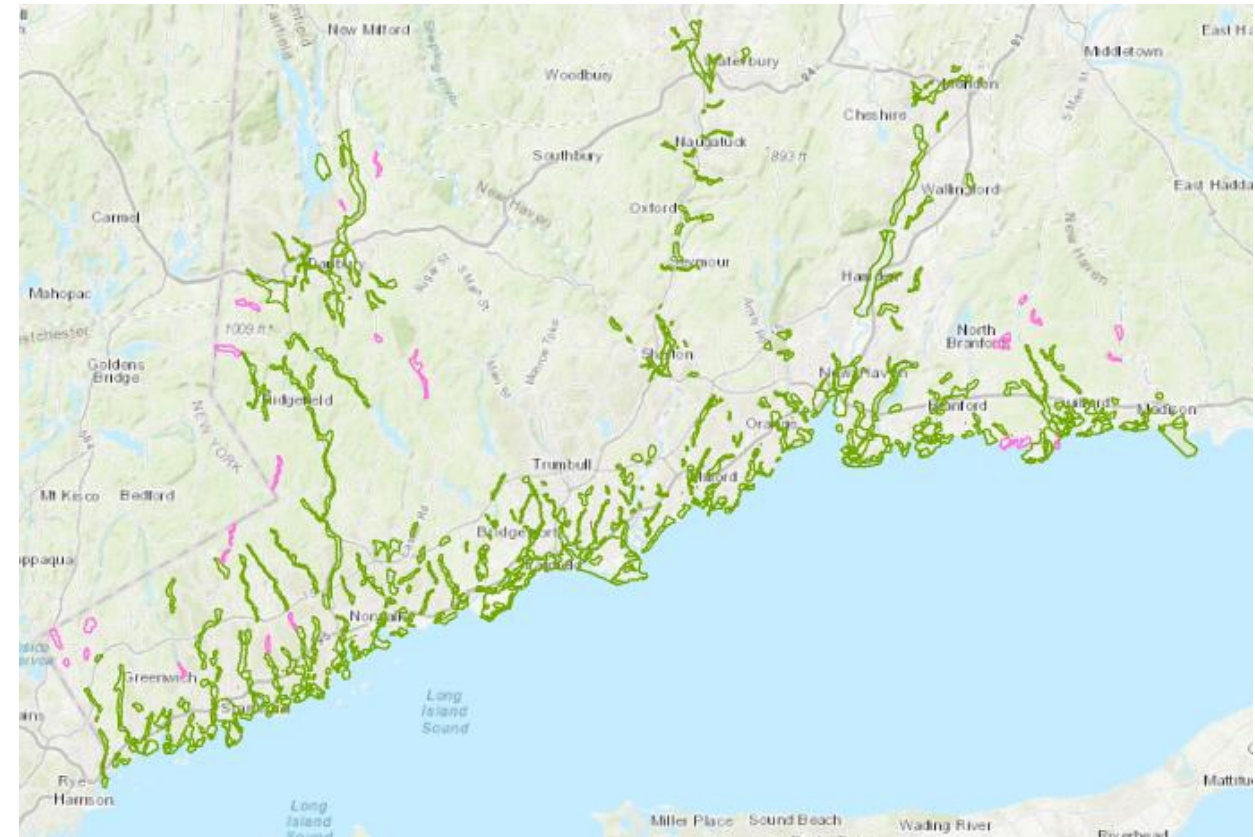
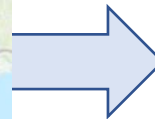
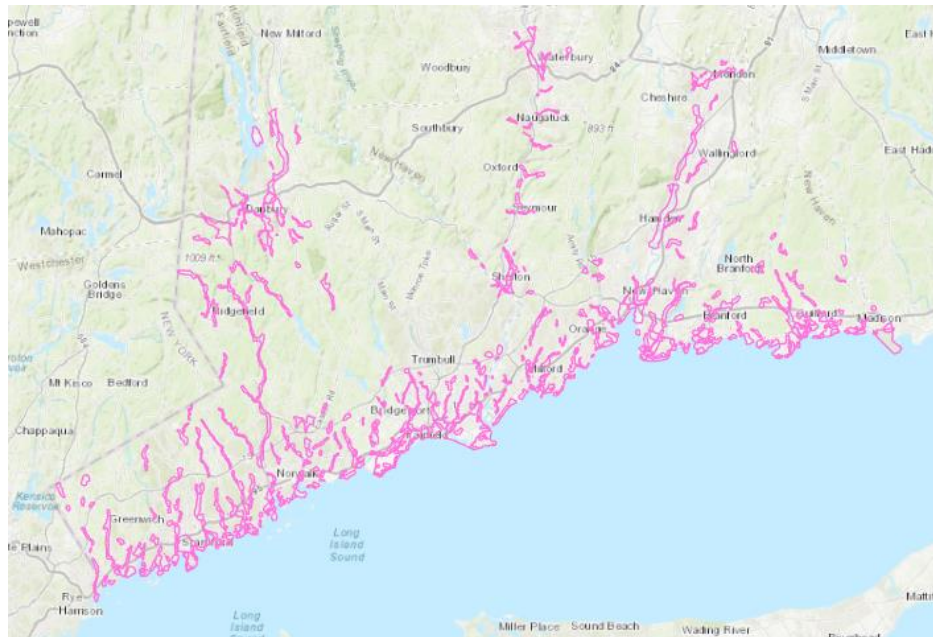
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



## Overlay and Score Process

- Linked Regional Assets with ZSR
  - ✓ Of 656 ZSR, 626 are “regional”



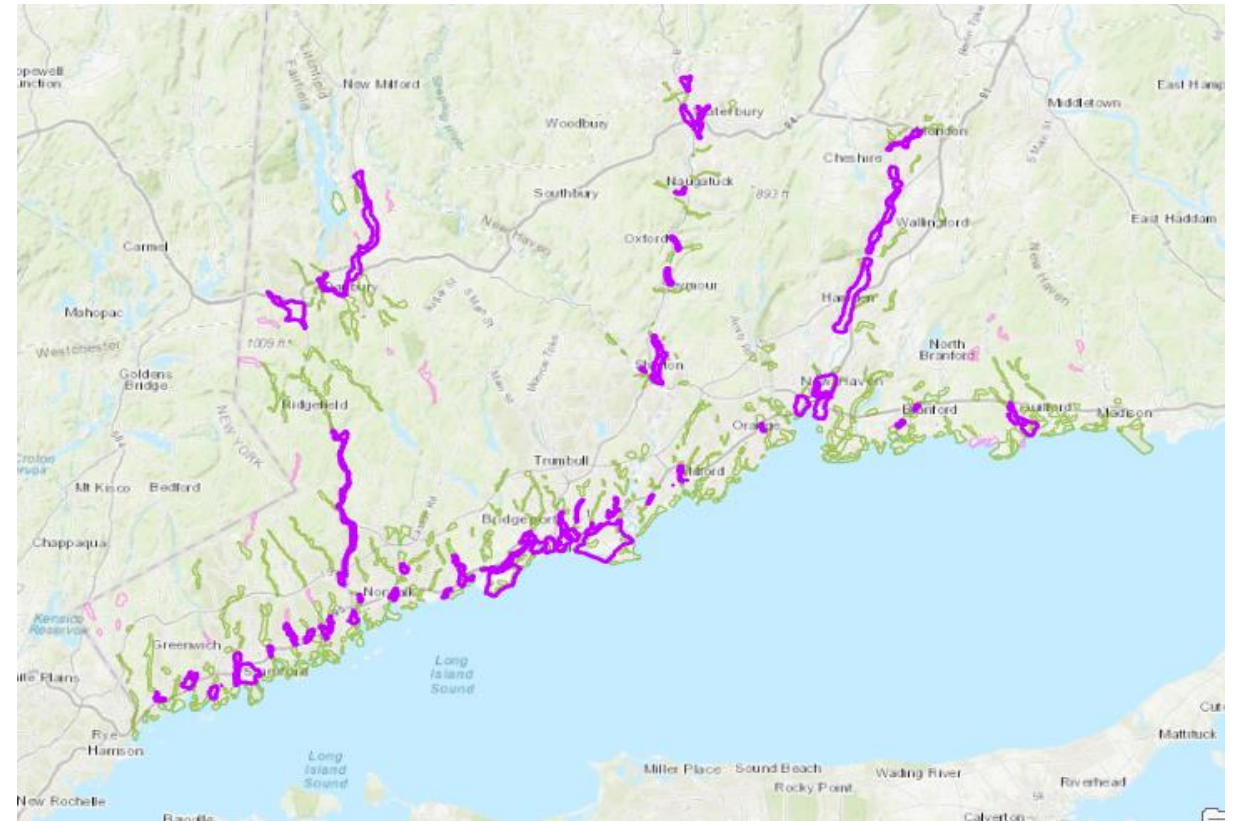
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



## Overlay and Score Process

- **Linked Regional Assets with ZSR**
  - ✓ Of 656 ZSR, 626 are “regional”
- **Identified top 20% of RZSR**
  - ✓ Based on number of assets in each RZSR
  - ✓ 86 in top 20% - have between 6 and 16 assets

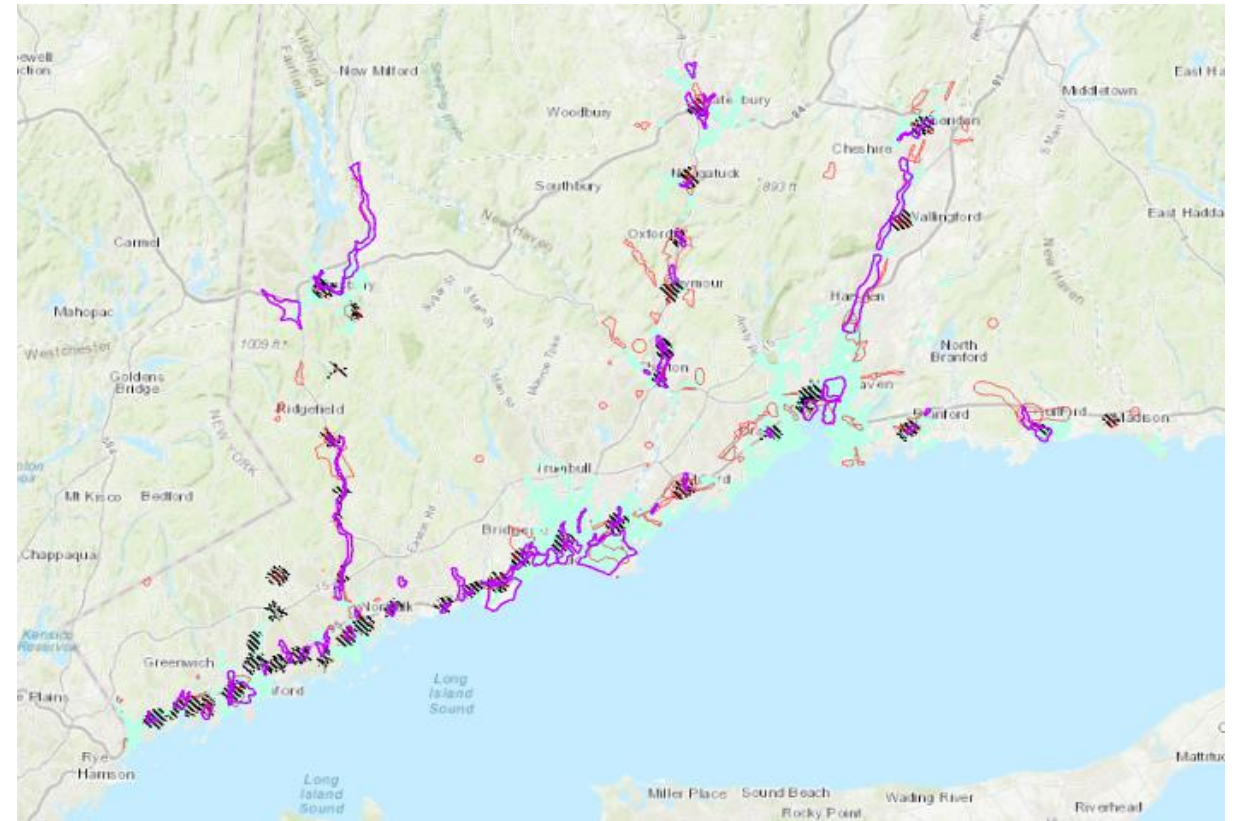


# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

## Overlay and Score Process

- **Linked Regional Assets with ZSR**
  - ✓ Of 656 ZSR, 626 are “regional”
- **Identified top 20% of RZSR**
  - ✓ Based on number of assets in each RZSR
  - ✓ 86 in top 20% - have between 6 and 16 assets
- **Identified intersection of top RZSR and:**
  - ✓ High flood/high heat scenario
  - ✓ TOD areas
  - ✓ Planned future development



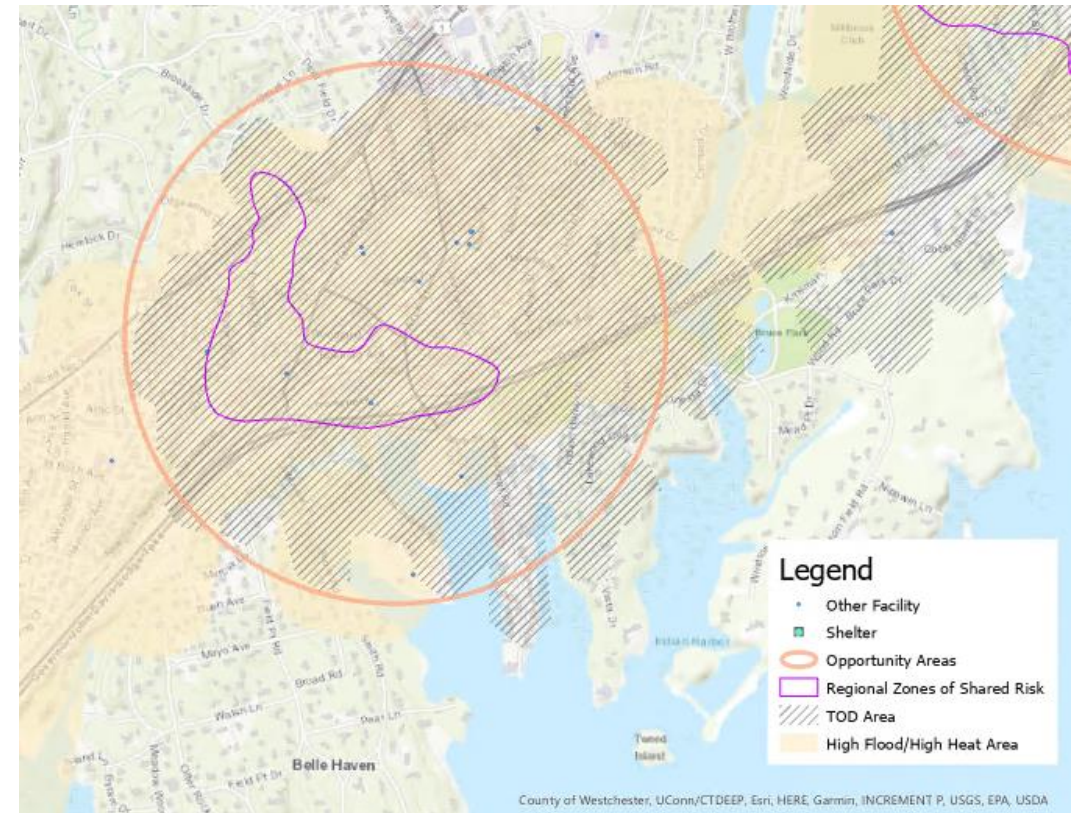
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

## Tier 1 and Tier 2

Not base on priority, just the process

- Tier 1 intersection, typically all align:
  - ✓ RZSR
  - ✓ High flood/high heat
  - ✓ TOD



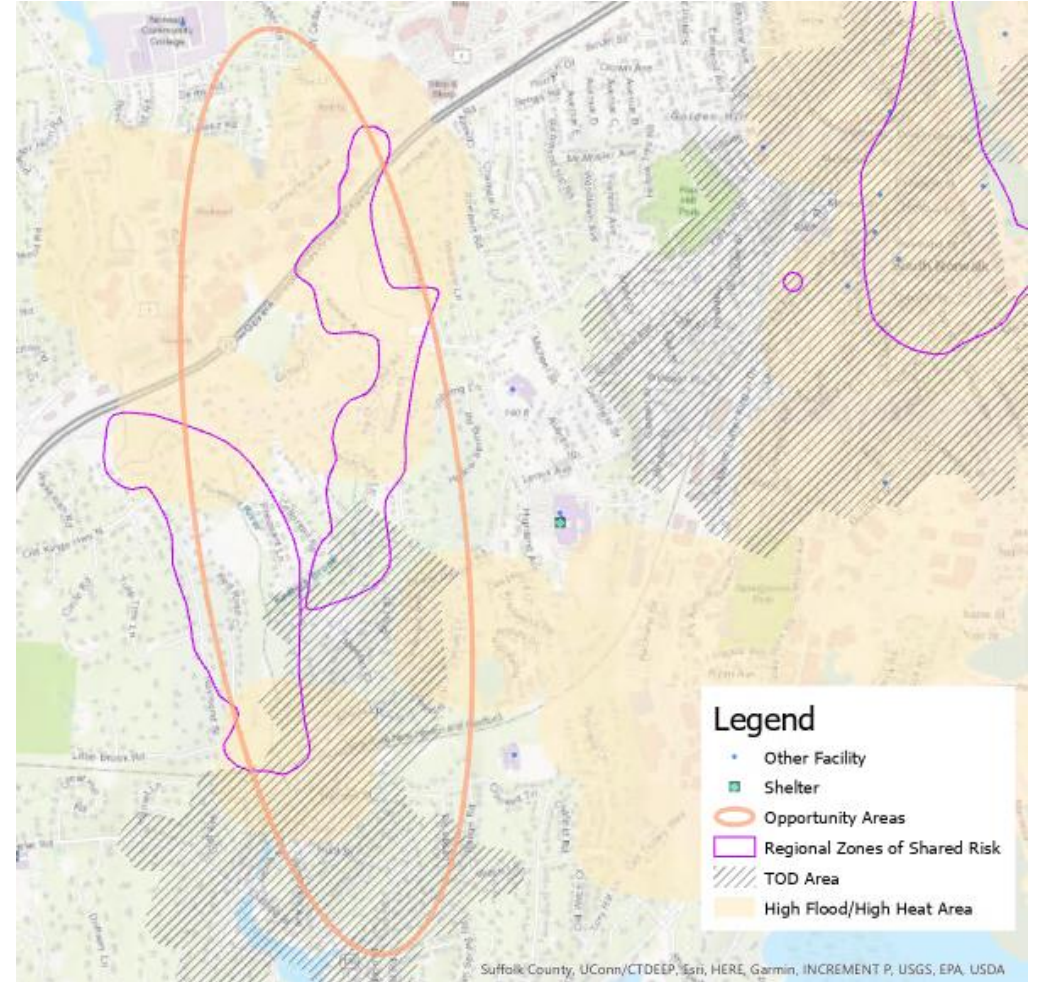
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

## Tier 1 and Tier 2

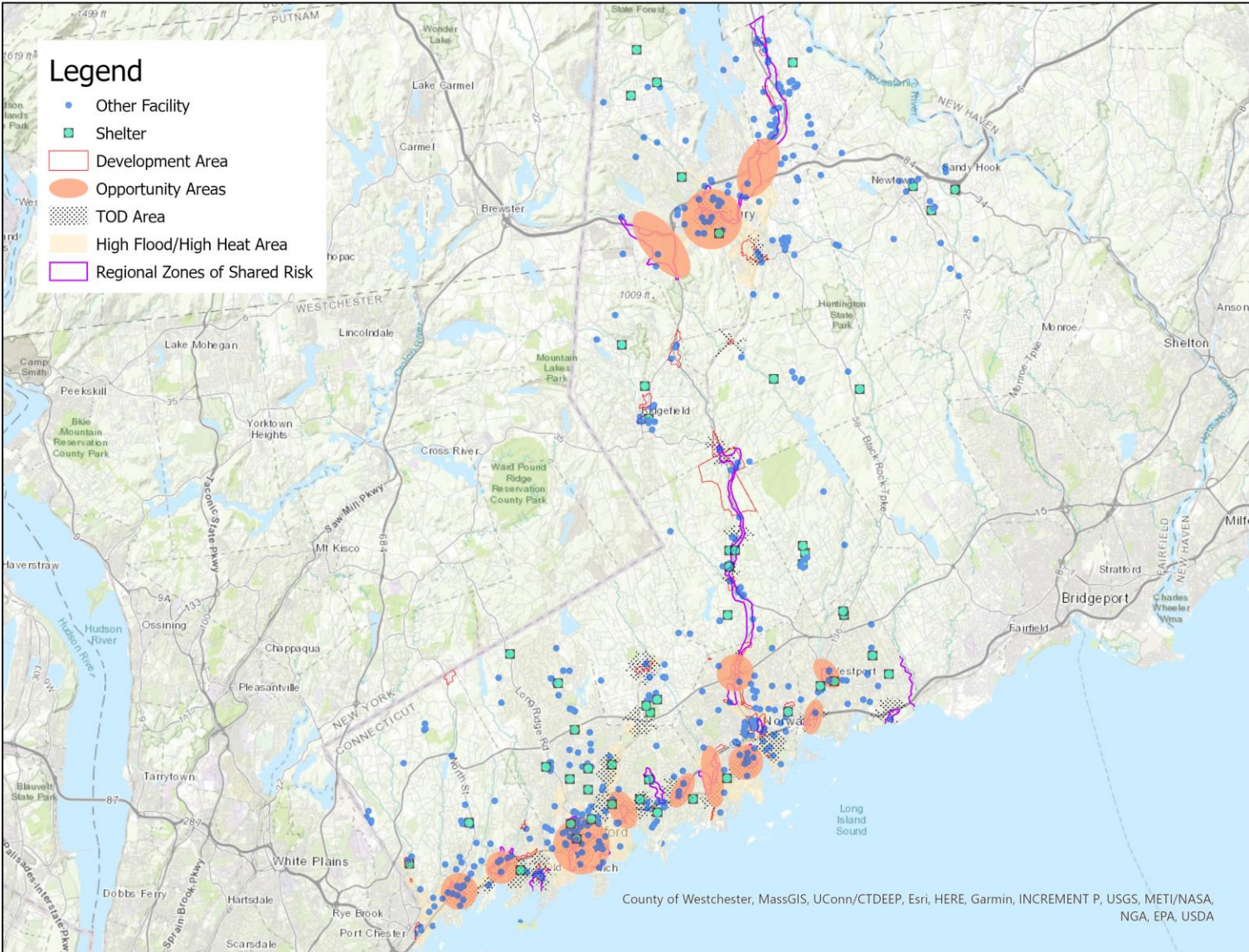
Not base on priority, just the process

- Tier 1 intersection, typically all align:
  - ✓ RZSR
  - ✓ High flood/high heat
  - ✓ TOD
- Tier 2, not perfectly aligned:
  - ✓ Contains RZSR
  - ✓ Proximity to TOD
  - ✓ Not fully encompassed by high flood/high heat



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



# Introduction to Breakout Rooms About Specific Areas



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



- Here are some **reminders** for our discussion:
  - ✓ Regional adaptation/resilience opportunity areas are the geographic locations that our team has identified based on overlays of **flood vulnerability, heat vulnerability, social vulnerability, zones of shared risk, and regional assets and infrastructure.**
  - ✓ Each potential regional adaptation/resilience opportunity area identified in the region is depicted on an **individual page.**
- Here are some **hints** for our discussion:
  - ✓ **Scores** associated with the flood, heat, and social vulnerabilities are relative scores. A score of “0.9” in one opportunity area demonstrates higher vulnerability than a score of “0.5” in a nearby opportunity area.
  - ✓ **ID numbers** for the zones of shared risk include a watershed ID developed by the State. For example, “7300” is the Norwalk River watershed.
  - ✓ **“Areas of planned development”** have been gathered from community plans, but the names that we selected for these information sheets are a work in progress.



## What should you keep in mind while discussing resilience opportunity areas?

- ✓ Are there other assets in a particular area that may have been overlooked?
- ✓ Is there a resource or asset located *outside* of this area that alleviates some vulnerability?
- ✓ Is there a specific **flood** or **heat** risk location that comes to mind?
- ✓ Are there any other planning efforts occurring in a specific opportunity area?

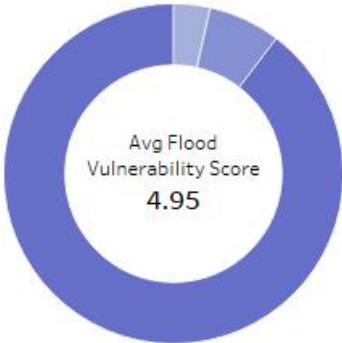
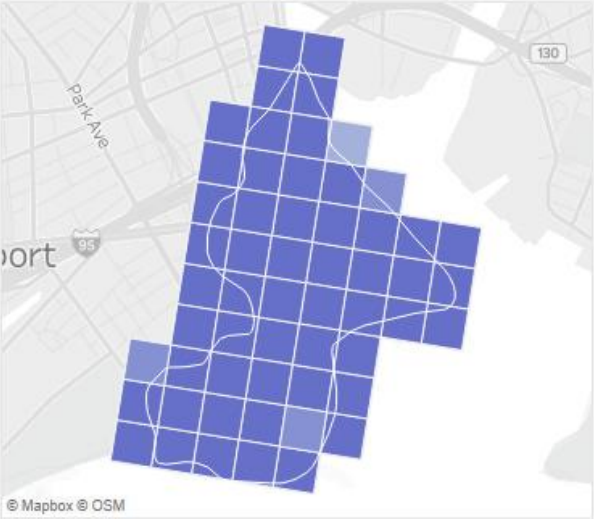
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

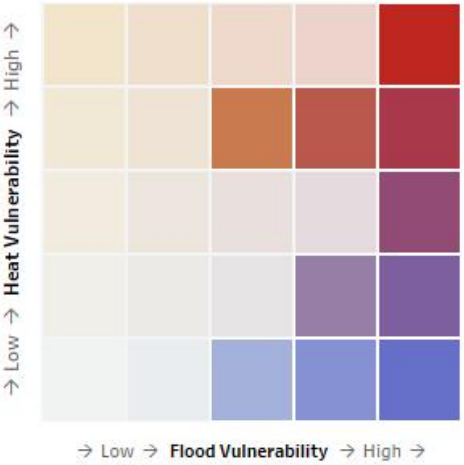
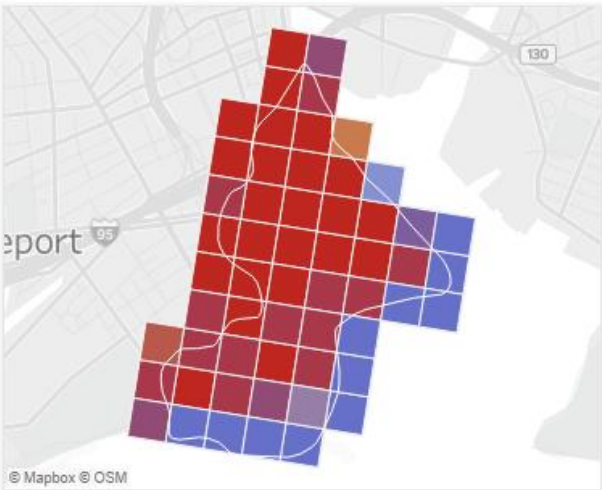
Zone of Shared Risk:  
7000-06-20-0  
Town: Bridgeport



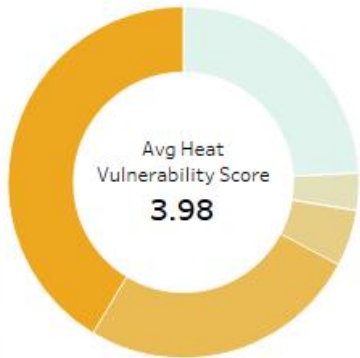
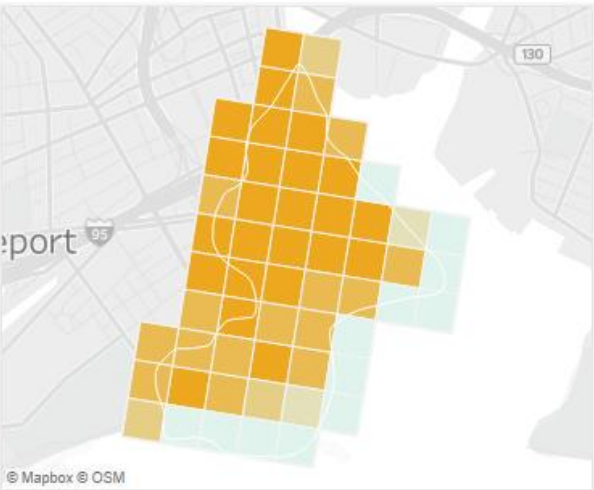
Flood Vulnerability



Combined Vulnerability



Heat Vulnerability



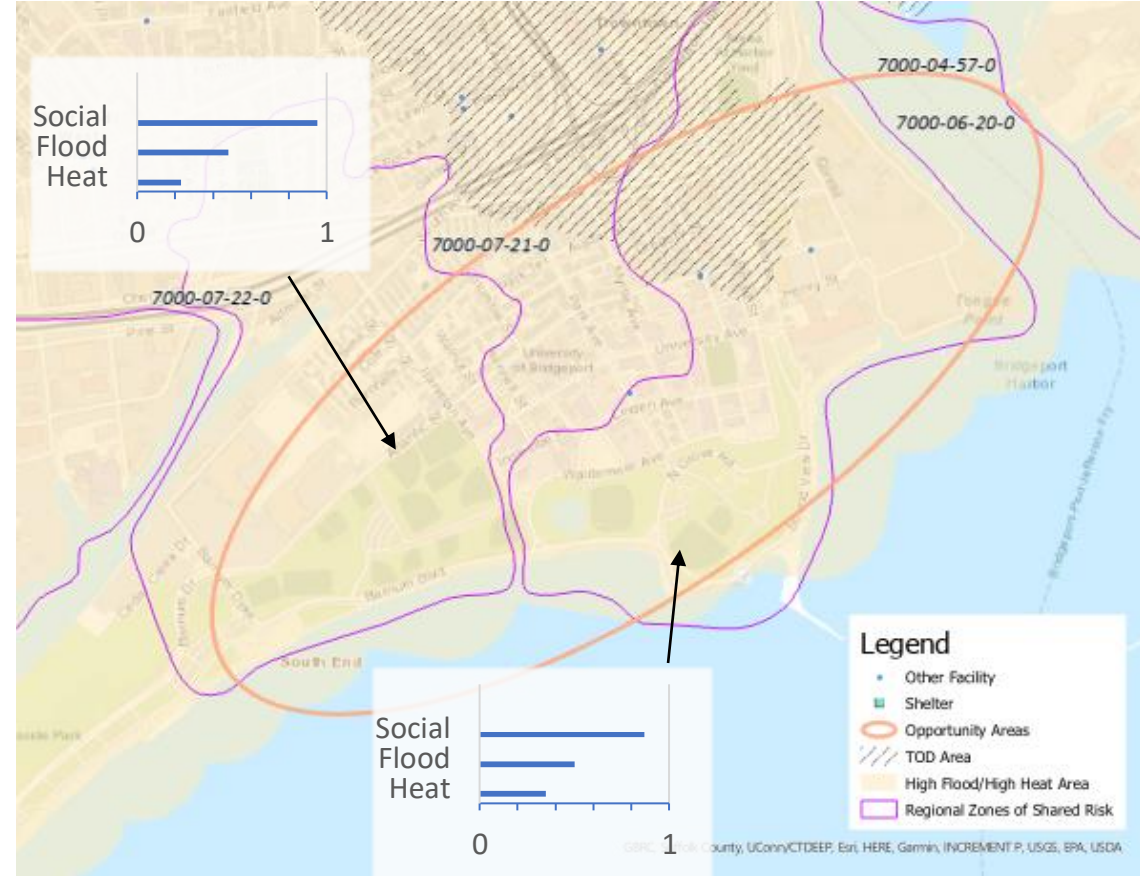
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #3  
 Name: South End  
 Location: Bridgeport  
 Tier 2

Considerations	Characteristics of Area
Flood Vulnerability	0.48 to 0.50 (high)
Heat Vulnerability	0.35 to 0.37 (moderate-high)
Social Vulnerability	0.87 to 0.95 (high)
Zone of Shared Risk	Shoreline: 7000-07
Regional Infrastructure Present	Electric substation, law enforcement, electric transmission
Area of Planned Development Present	N/A
Federal Opportunity Zone Present	South End
Transit-Oriented Development Area	Bridgeport Station



*The Rebuild By Design and Resilient Bridgeport projects are already underway in this area*

# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #3  
Name: South End  
Location: Bridgeport  
Tier 2



*Resilient Bridgeport – Flood Protection System and Resilience Community Center*

- What are the flood-related benefits?
- What are the heat-related benefits?
- What are the benefits to vulnerable populations?

# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



# Break Out



# Resilient Connecticut Phase II

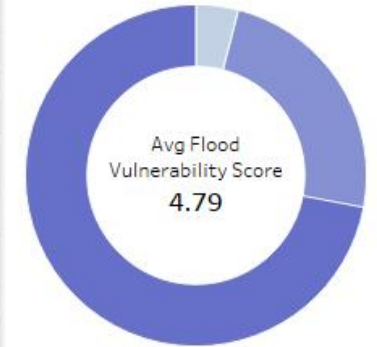
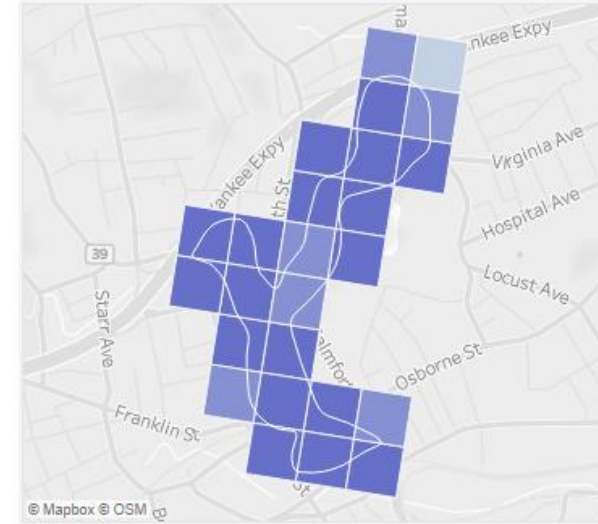
## Potential Regional Adaptation/Resilience Opportunity Areas



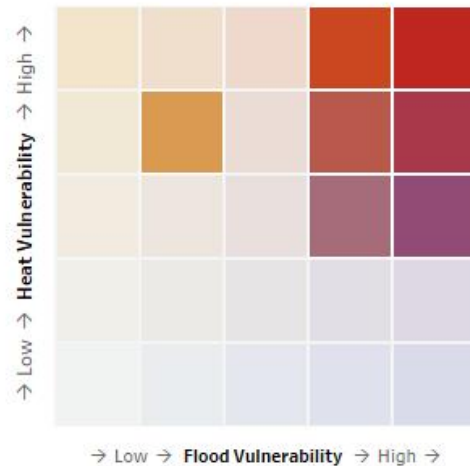
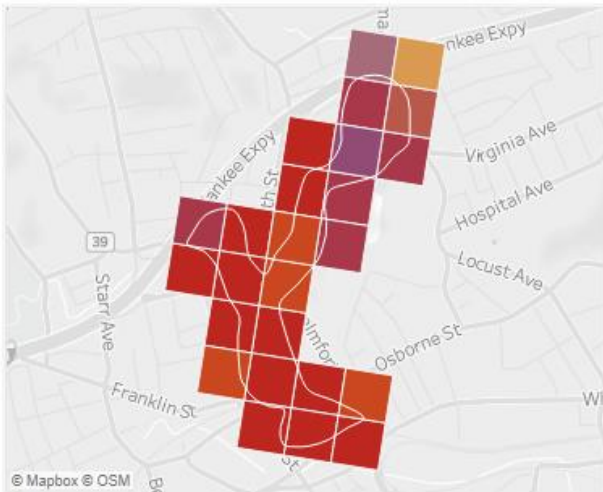
Zone of Shared Risk:  
6603-00-224-0  
Town: Danbury



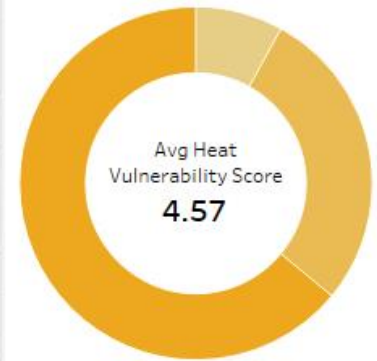
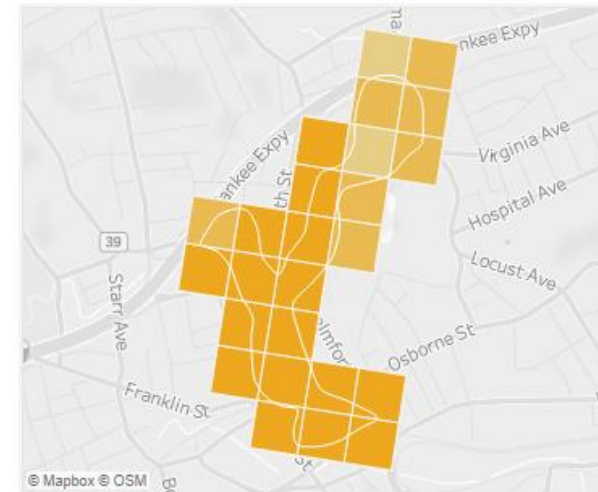
Flood Vulnerability



Combined Vulnerability



Heat Vulnerability



# Resilient Connecticut Phase II

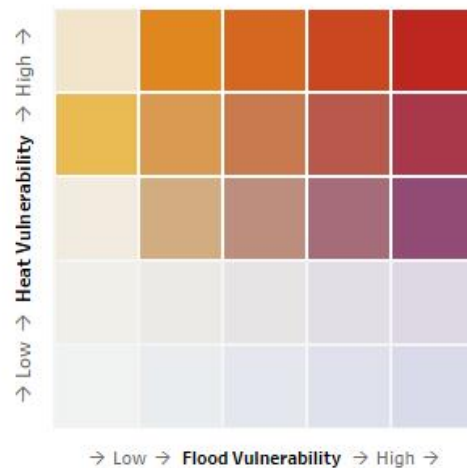
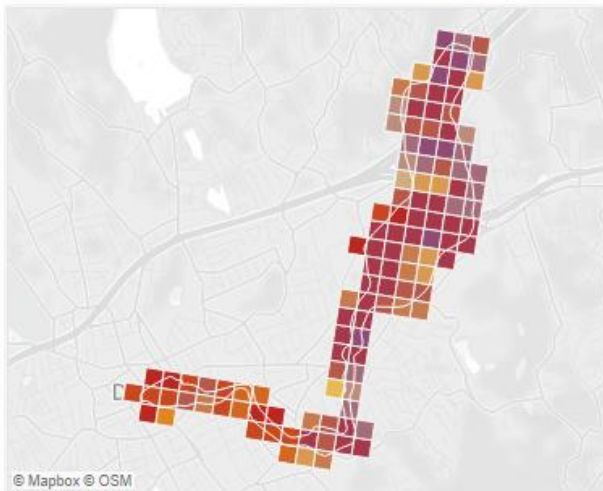
## Potential Regional Adaptation/Resilience Opportunity Areas



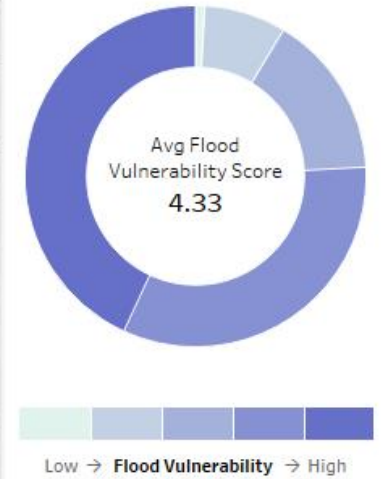
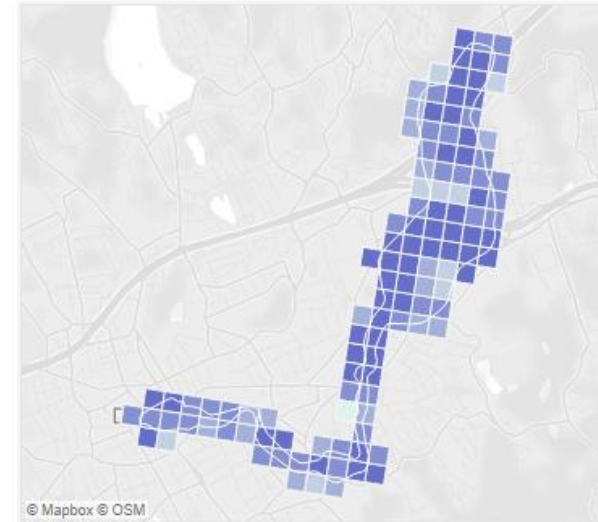
Zone of Shared Risk:  
6600-00-223-0  
Town: Danbury



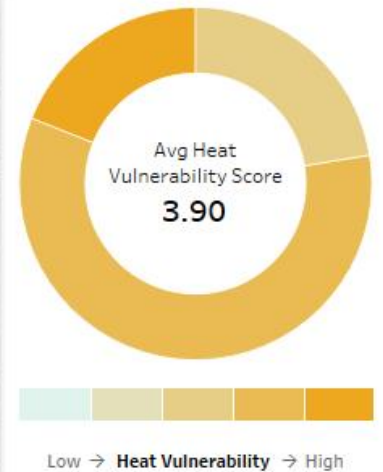
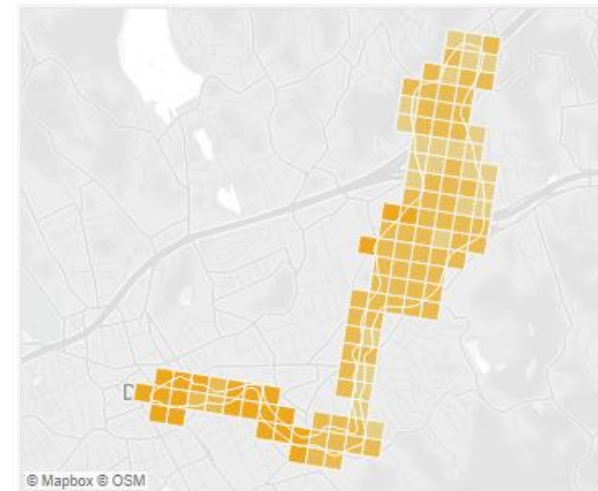
Combined Vulnerability



Flood Vulnerability



Heat Vulnerability



# Resilient Connecticut Phase II

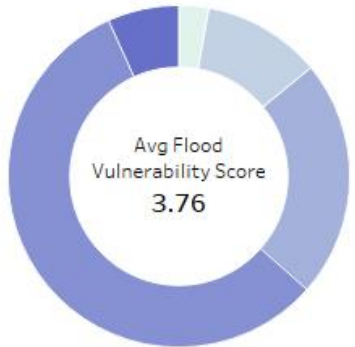
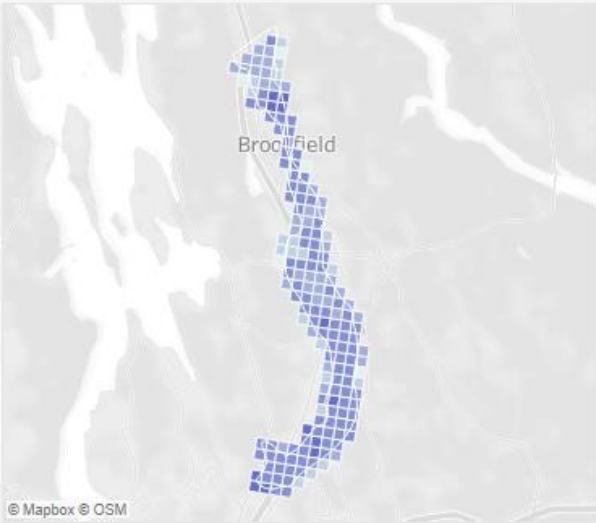
## Potential Regional Adaptation/Resilience Opportunity Areas



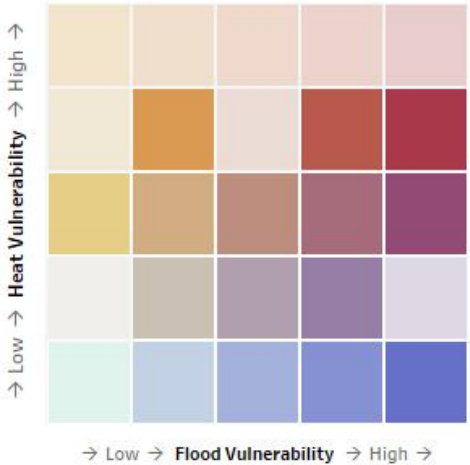
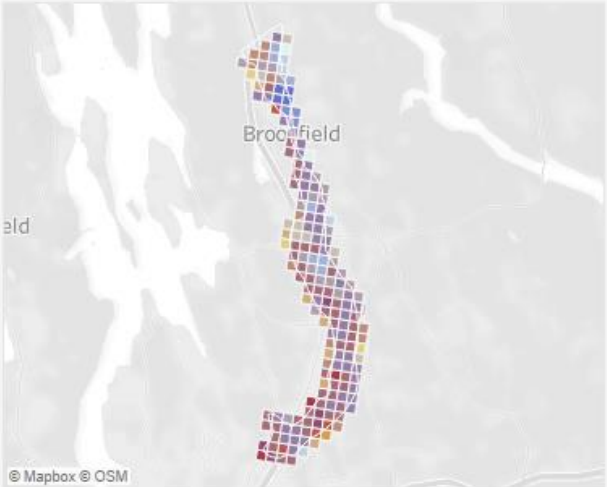
Zone of Shared Risk:  
6600-00-233-0  
Town: **Brookfield**



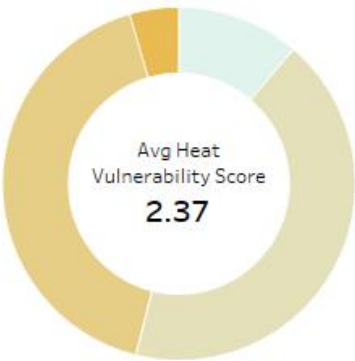
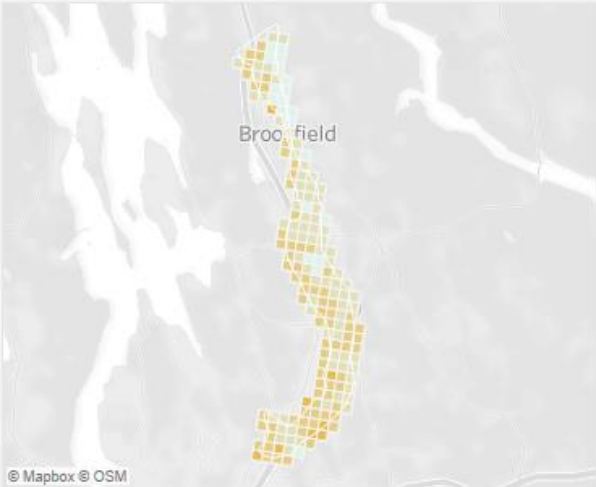
**Flood Vulnerability**



**Combined Vulnerability**



**Heat Vulnerability**



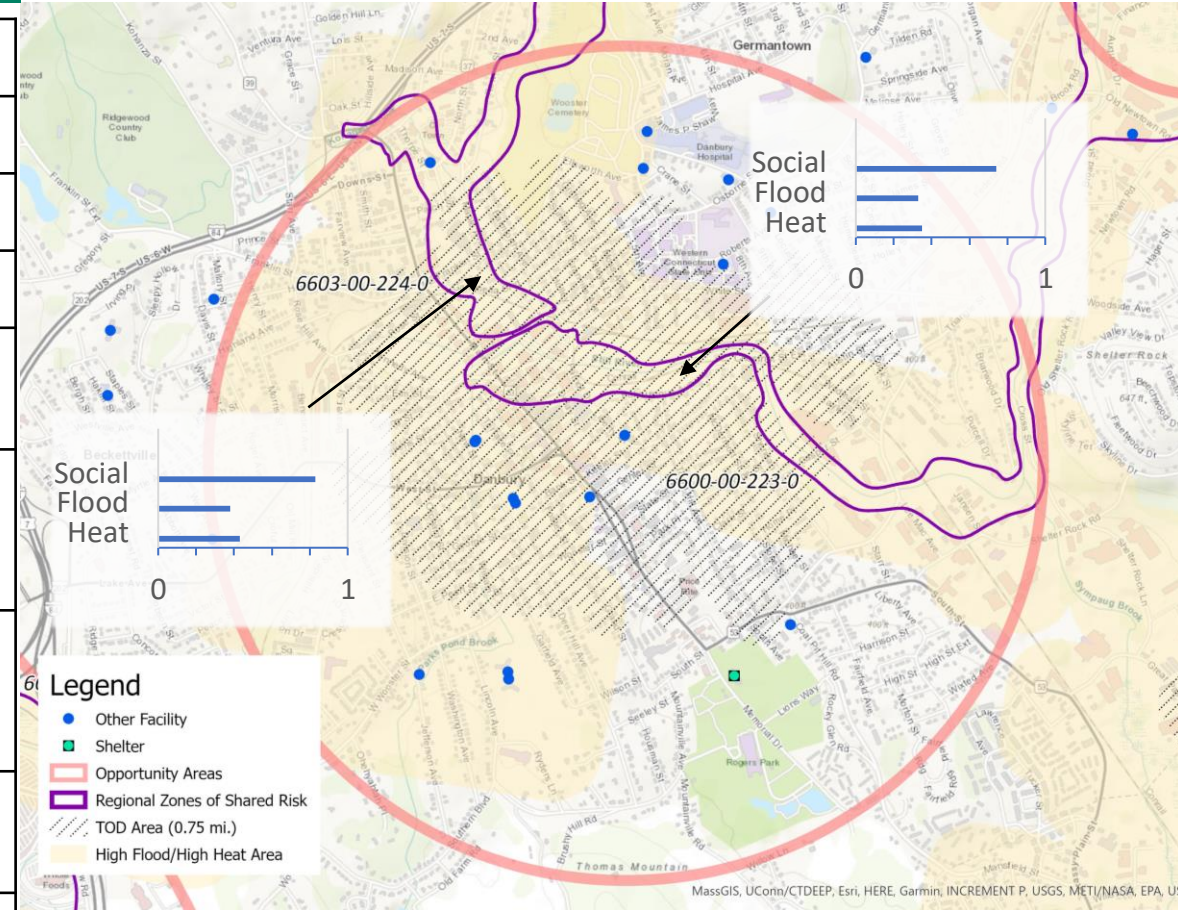


# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

Area #1 Location: Danbury  
Name: Downtown Danbury Tier 1

Considerations	Characteristics of Area
Flood Vulnerability	0.33 to 0.38
Heat Vulnerability	0.35 to 0.43
Social Vulnerability	0.74 to 0.83
Zone of Shared Risk	Kohanza Brook, Padanarum Brook: 6600 Still River: 6603
Regional Infrastructure Present	I-84, Amtrak, Danbury Station,
Area of Planned Development Present	Downtown Revitalization Overlay Zone
Federal Opportunity Zone Present	“Main Street Redevelopment”
Transit-Oriented Development Area	Danbury Station



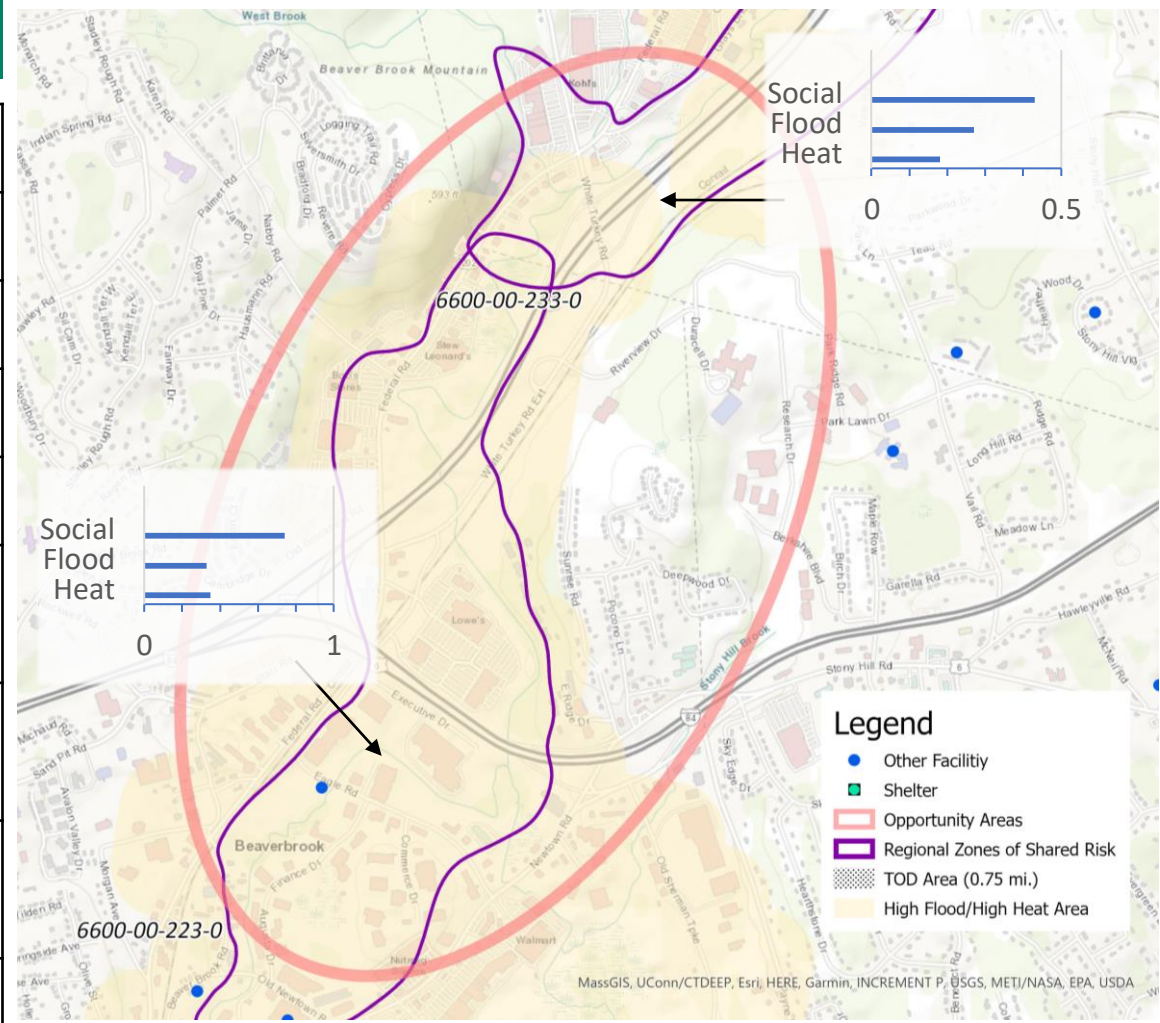
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #2  
 Name: Danbury  
 Location: Danbury  
 Tier 2

Considerations	Characteristics of Area
Flood Vulnerability	0.27 to 0.33
Heat Vulnerability	0.18 to 0.35
Social Vulnerability	0.43 to 0.74
Zone of Shared Risk	Still River: 6600
Regional Infrastructure Present	Electric substations, MetroNorth, I-84, Route 7
Area of Planned Development Present	Development area in southern Brookfield at the northern extent of 6600-0-233-0
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	N/A



# Resilient Connecticut Phase II

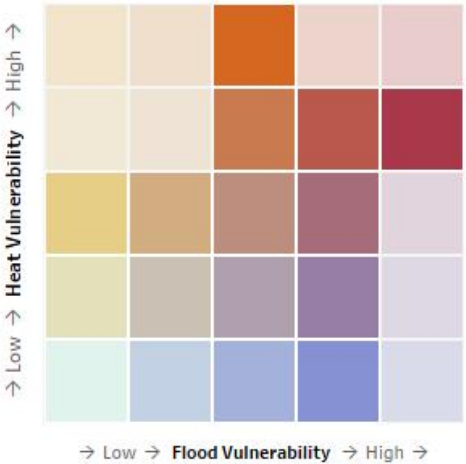
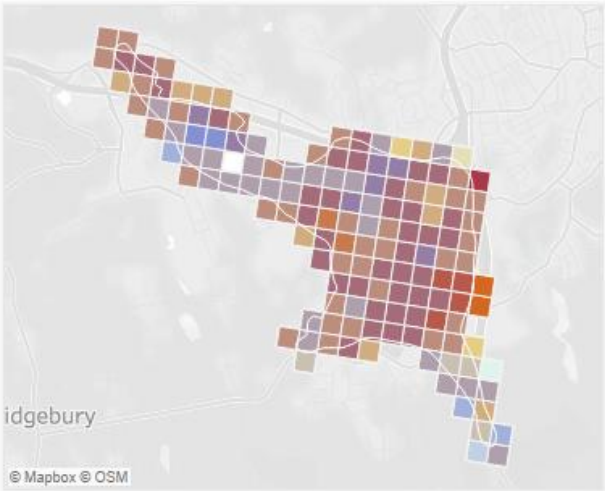
## Potential Regional Adaptation/Resilience Opportunity Areas



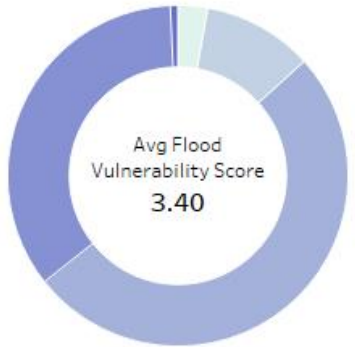
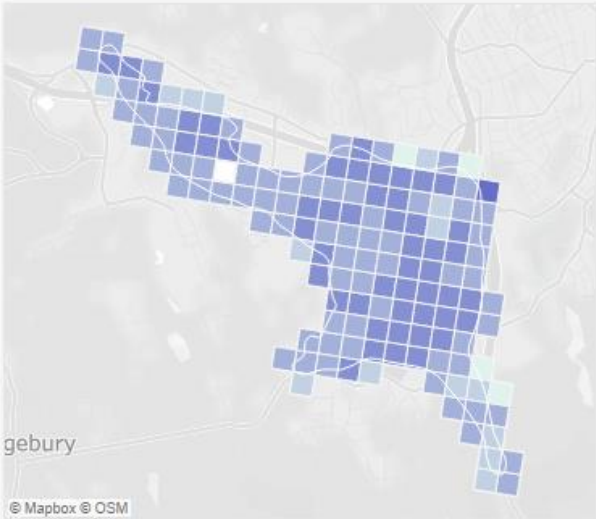
Zone of Shared Risk:  
6601-00-229-0  
Town: Danbury



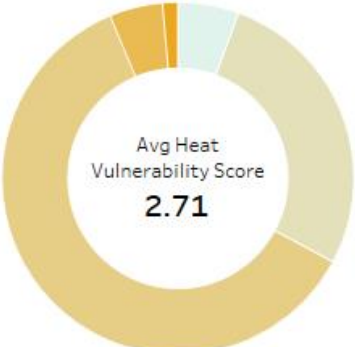
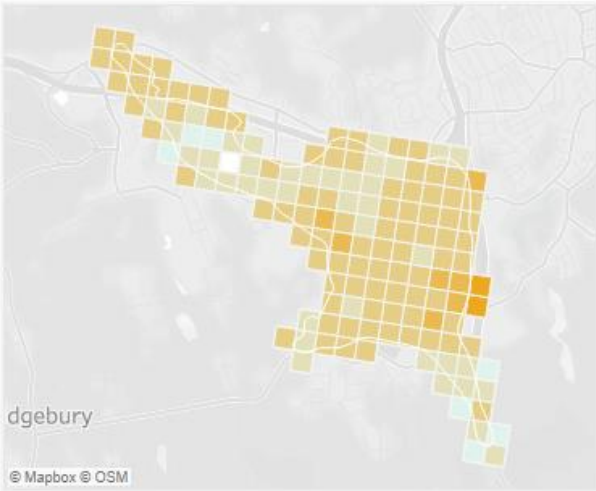
Combined Vulnerability



Flood Vulnerability



Heat Vulnerability

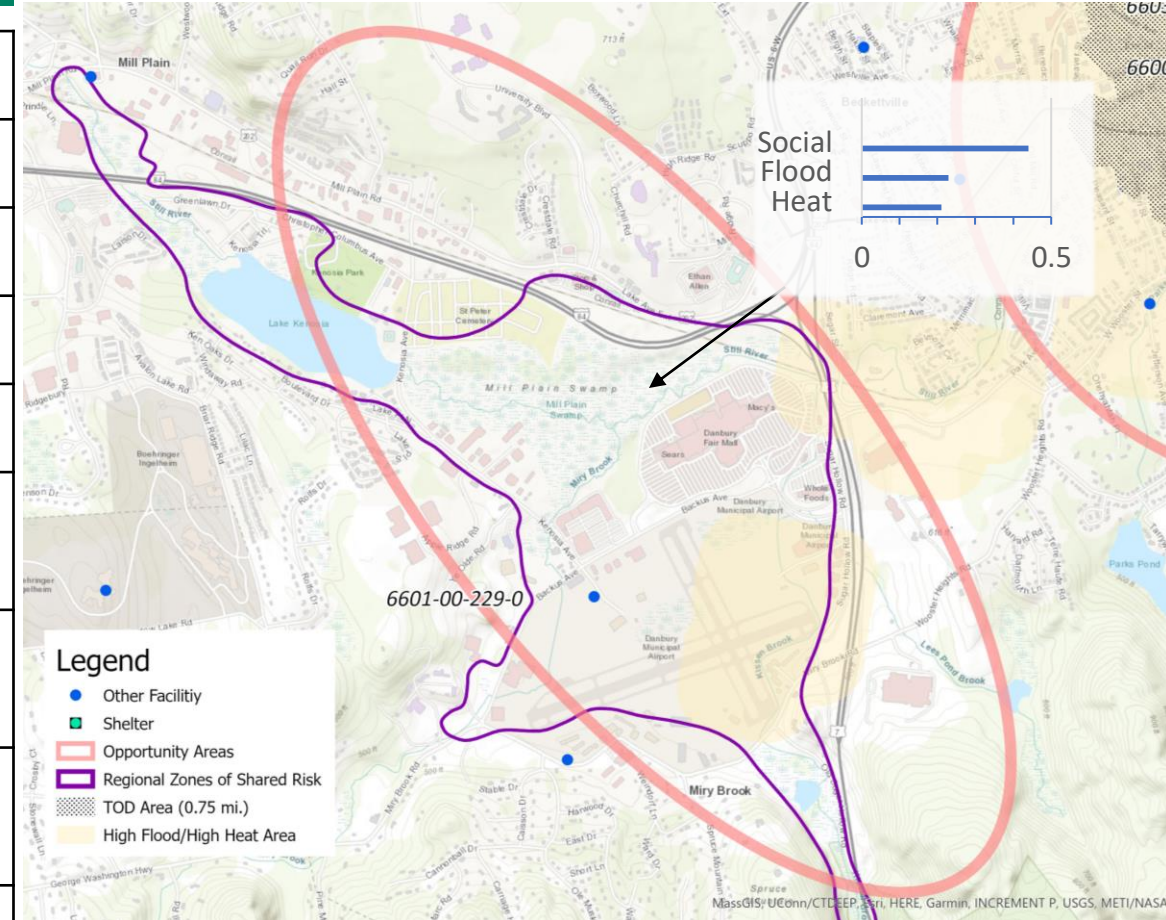


# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

Area #3  
Name: Danbury Airport  
Location: Danbury  
Tier 2

Considerations	Characteristics of Area
Flood Vulnerability	0.23
Heat Vulnerability	0.21
Social Vulnerability	0.44
Zone of Shared Risk	Still River: 6601
Regional Infrastructure Present	Airport, Danbury Mall, , Emergency Distribution Facility at Mall, I-84
Area of Planned Development Present	N/A
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	N/A



# Resilient Connecticut Phase II

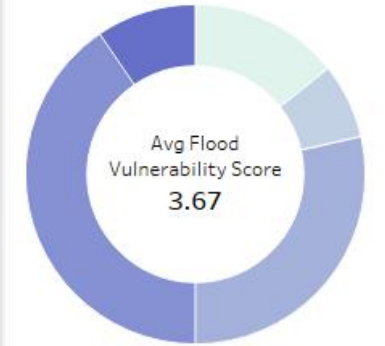
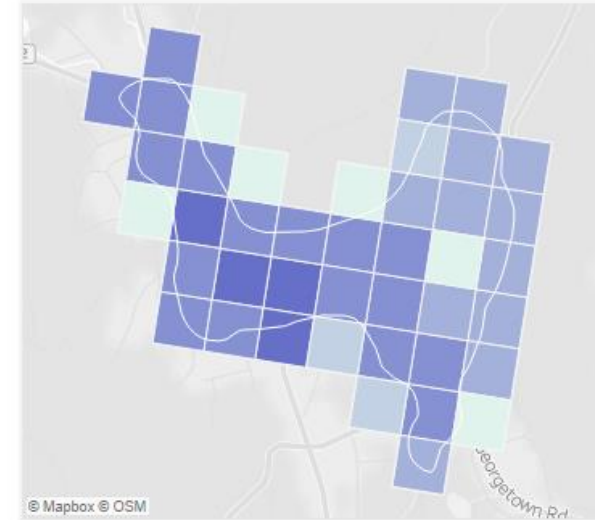
## Potential Regional Adaptation/Resilience Opportunity Areas



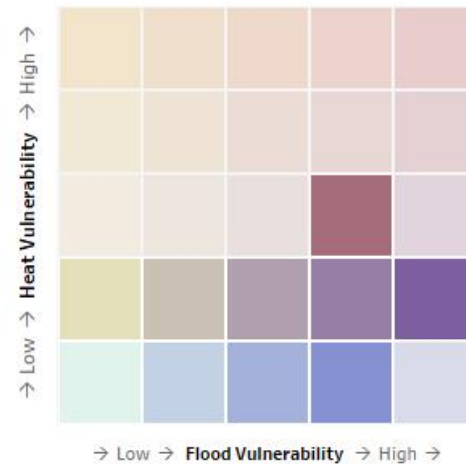
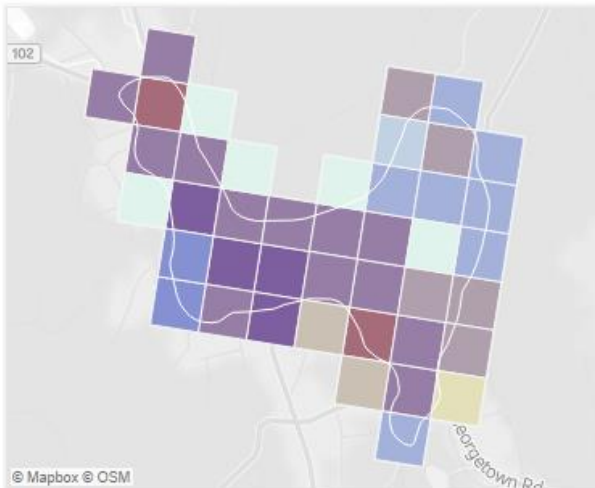
Zone of Shared Risk:  
7300-00-246-0  
Town: Redding/Ridge



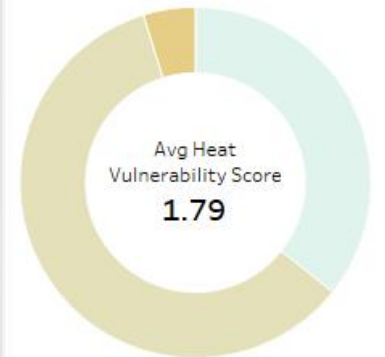
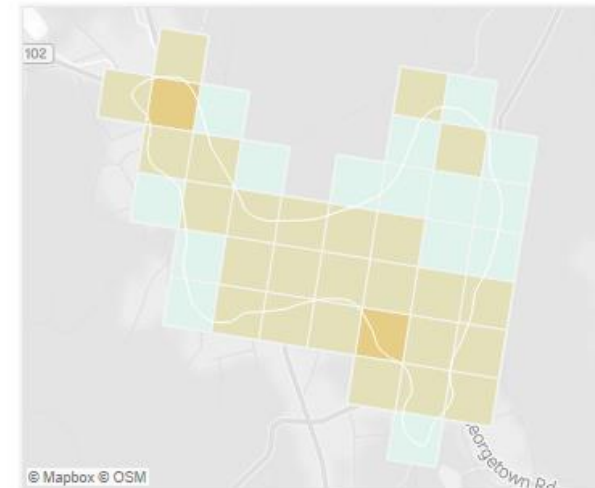
### Flood Vulnerability



### Combined Vulnerability



### Heat Vulnerability





# Resilient Connecticut Phase II

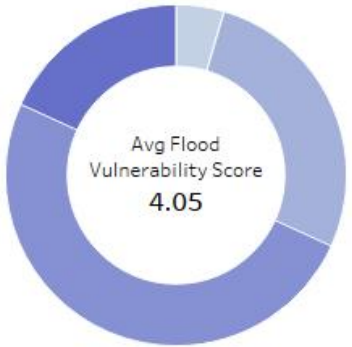
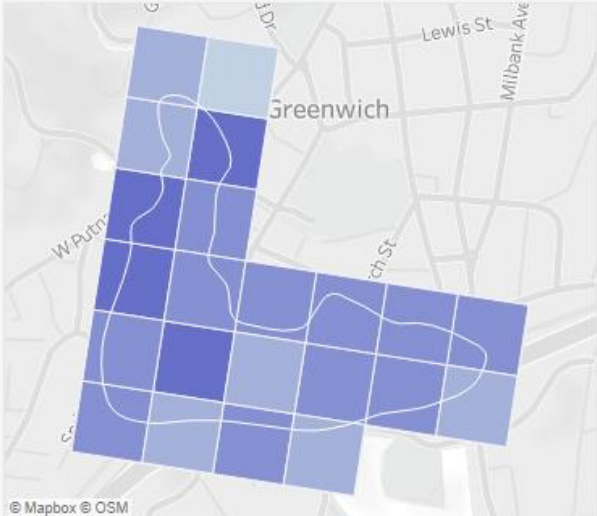
## Potential Regional Adaptation/Resilience Opportunity Areas



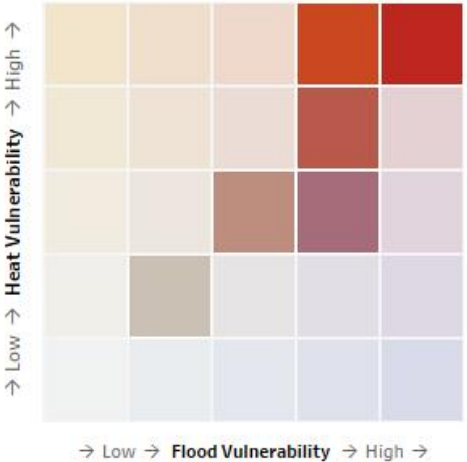
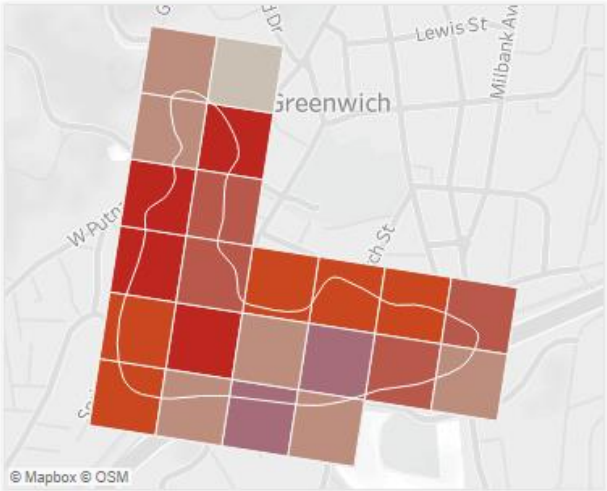
Zone of Shared Risk:  
7409-00-69-0  
Town: **Greenwich**



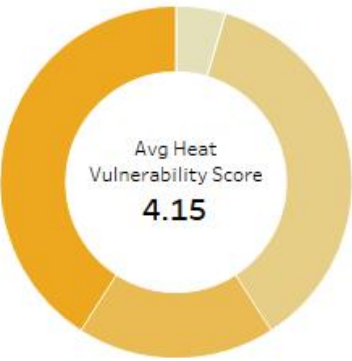
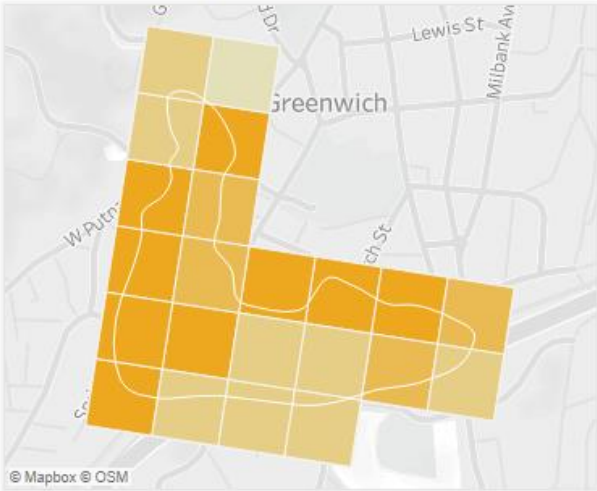
**Flood Vulnerability**



**Combined Vulnerability**



**Heat Vulnerability**



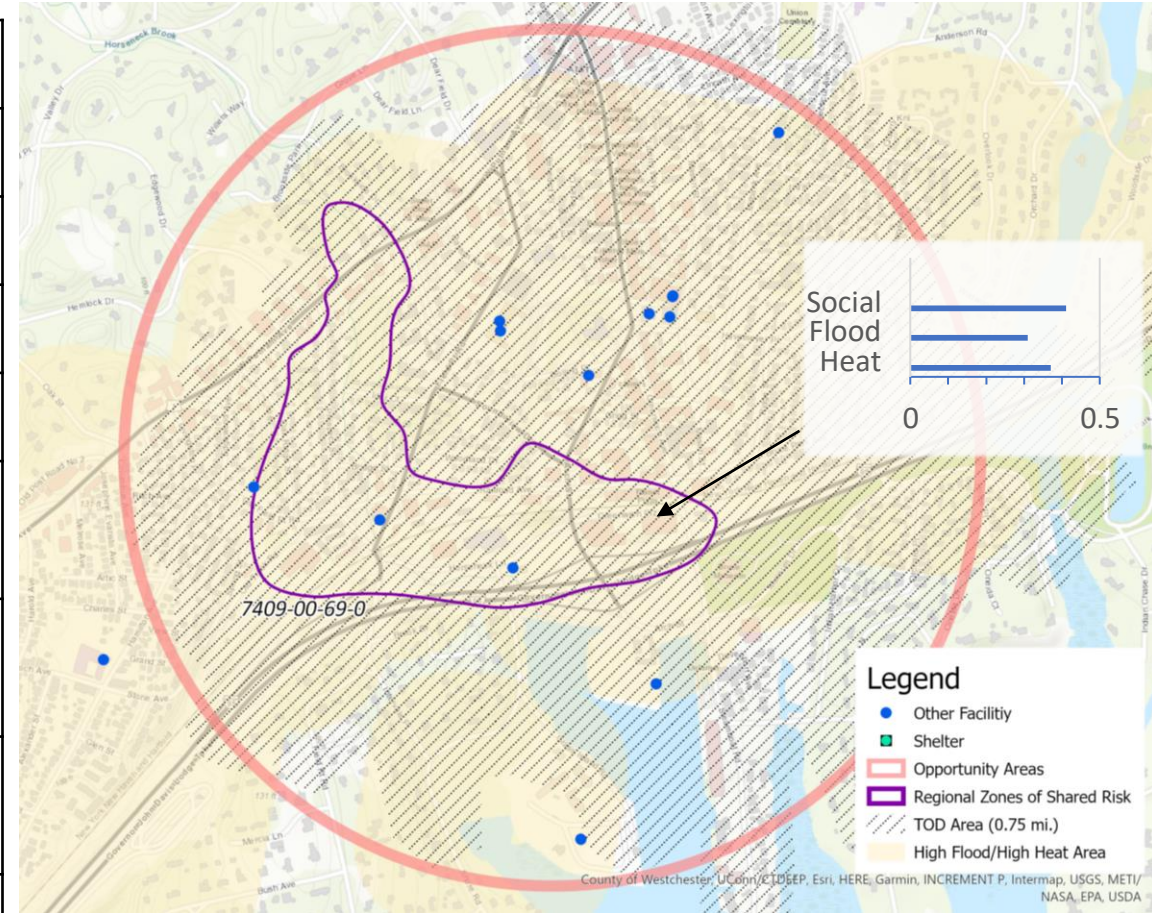
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #4  
 Name: Greenwich  
 Location: Greenwich  
 Tier 1

Considerations	Characteristics of Area
Flood Vulnerability	0.31
Heat Vulnerability	0.37
Social Vulnerability	0.41
Zone of Shared Risk	Southwest Shoreline: 7409-00
Regional Infrastructure Present	Substation, Amtrak/MetroNorth, I-95
Area of Planned Development Present	Commercial development in Chickahominy area
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	Greenwich Station





# Resilient Connecticut Phase II

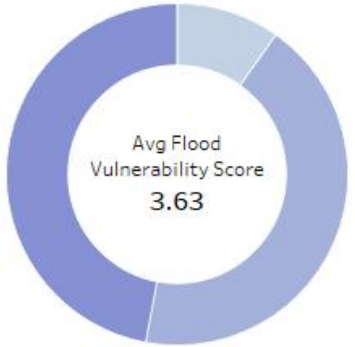
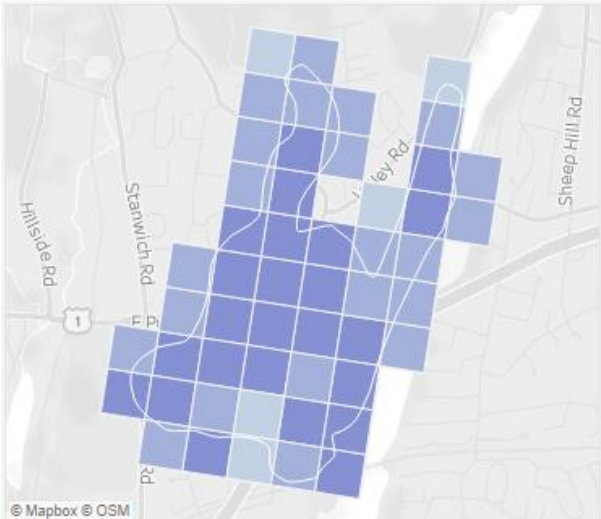
## Potential Regional Adaptation/Resilience Opportunity Areas



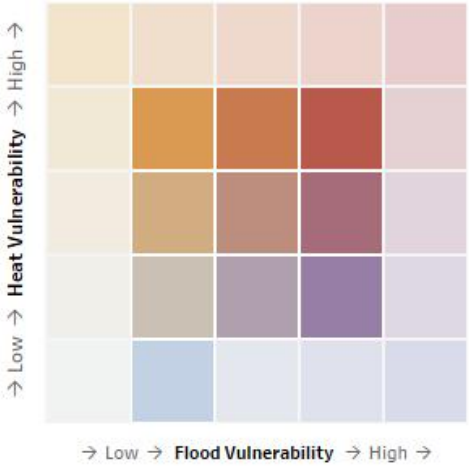
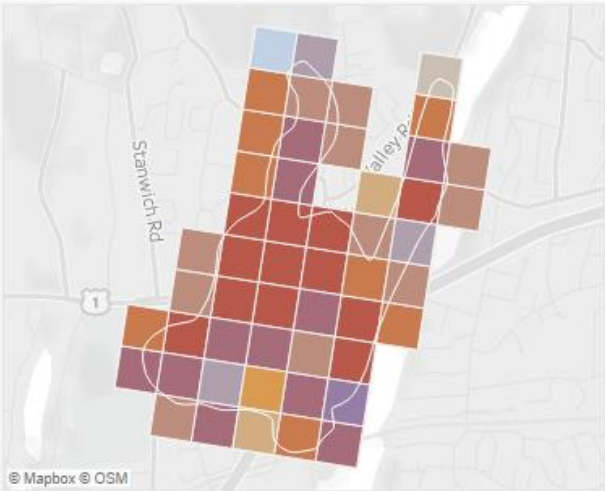
Zone of Shared Risk:  
7407-15-73-0  
Town: Greenwich



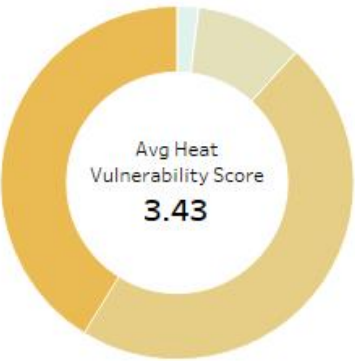
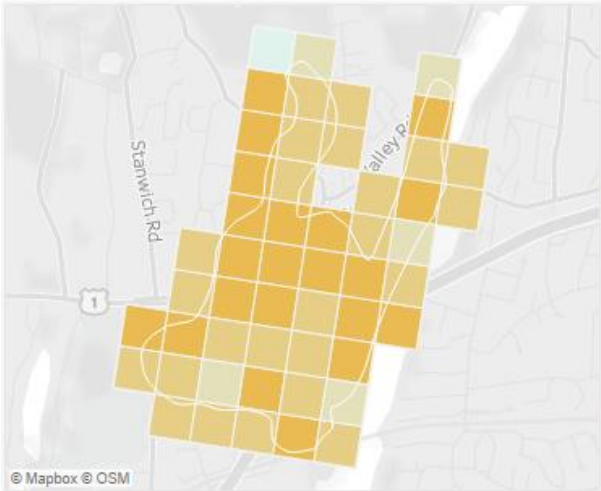
Flood Vulnerability



Combined Vulnerability



Heat Vulnerability



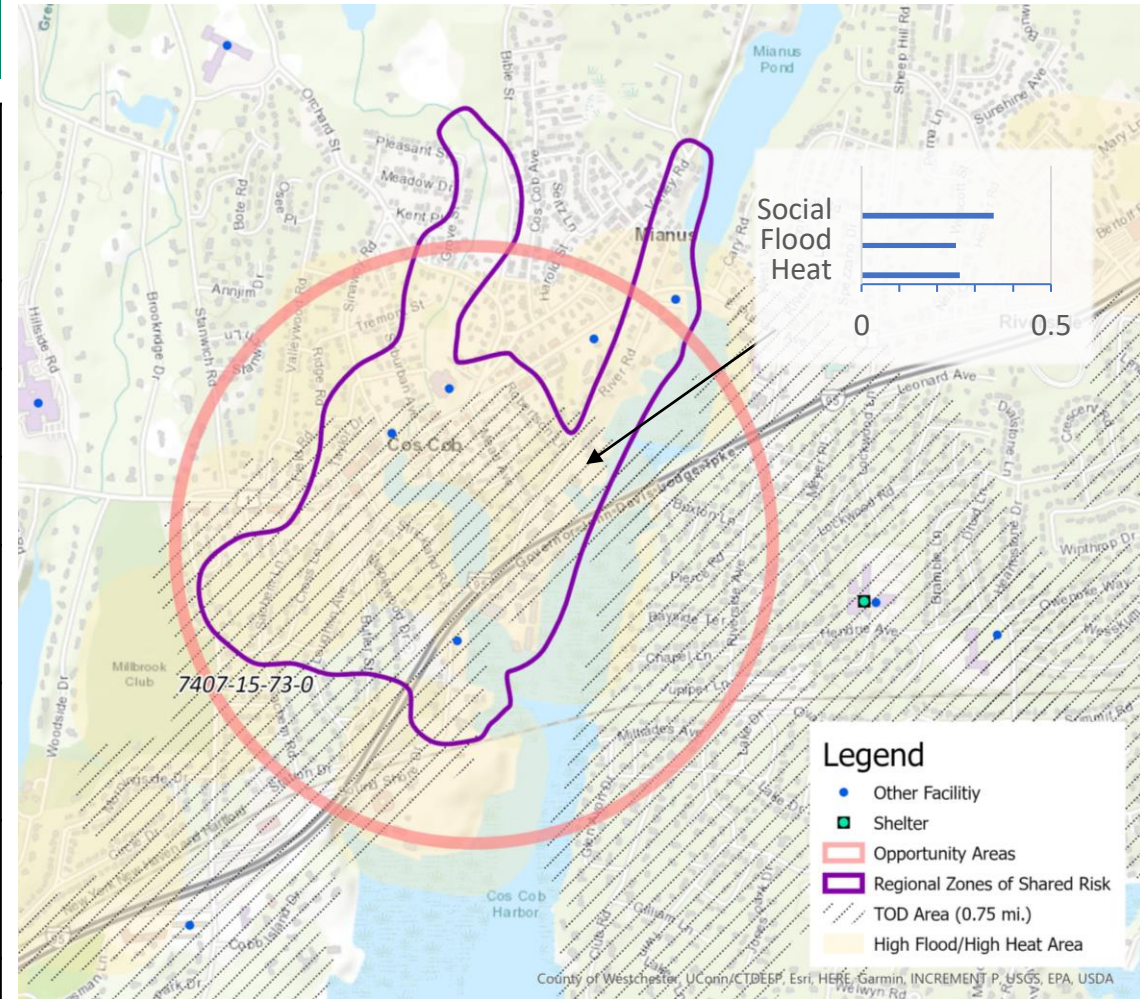
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #5  
 Name: Cos Cob  
 Location: Greenwich  
 Tier 1

Considerations	Characteristics of Area
Flood Vulnerability	0.25
Heat Vulnerability	0.26
Social Vulnerability	0.35
Zone of Shared Risk	Mianus River: 7407-15
Regional Infrastructure Present	Electric substation, I-95, Amtrak/MetroNorth
Area of Planned Development Present	Proposed Village District
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	Cos Cob Station



# Resilient Connecticut Phase II

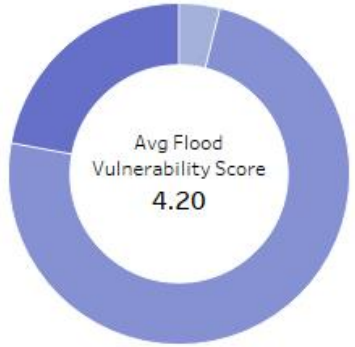
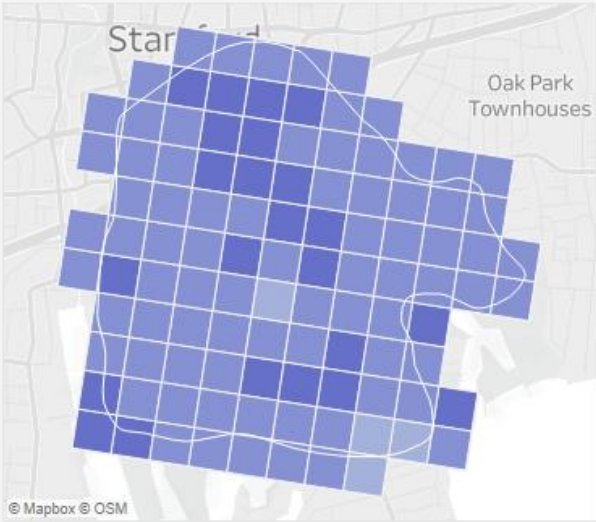
## Potential Regional Adaptation/Resilience Opportunity Areas



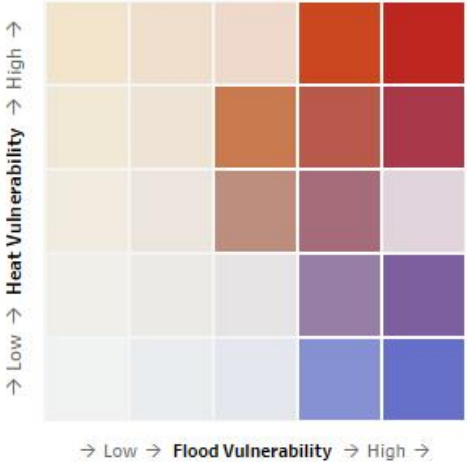
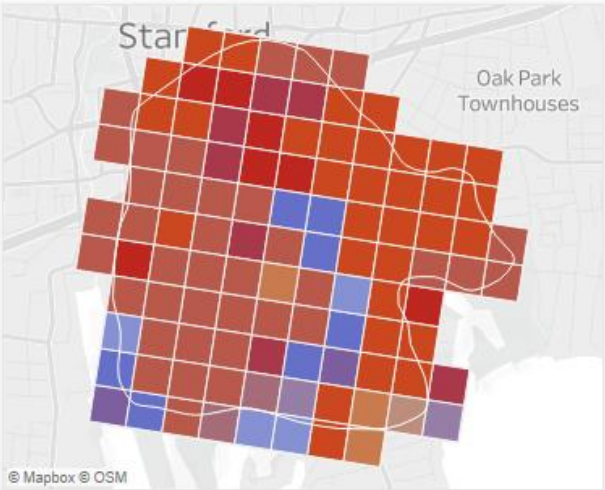
Zone of Shared Risk:  
7000-40-236-0  
Town: **Stamford**



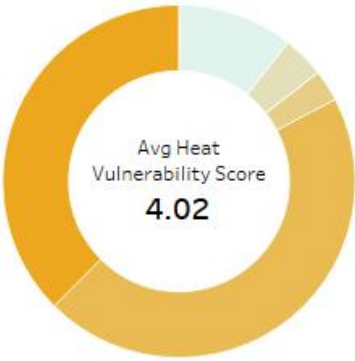
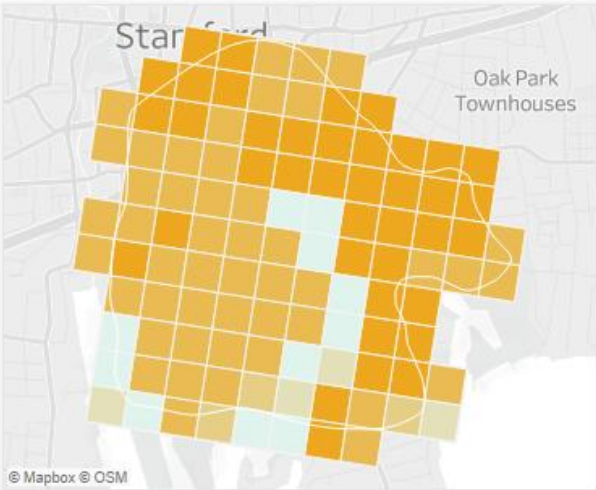
**Flood Vulnerability**



**Combined Vulnerability**



**Heat Vulnerability**



# Resilient Connecticut Phase II

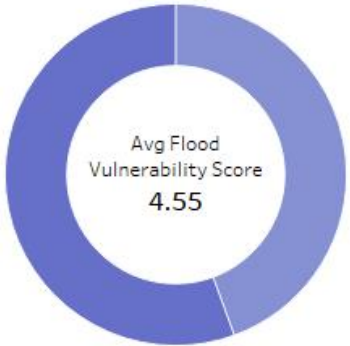
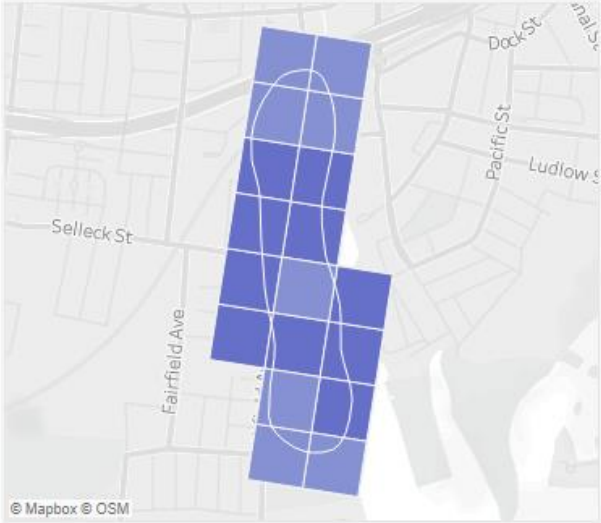
## Potential Regional Adaptation/Resilience Opportunity Areas



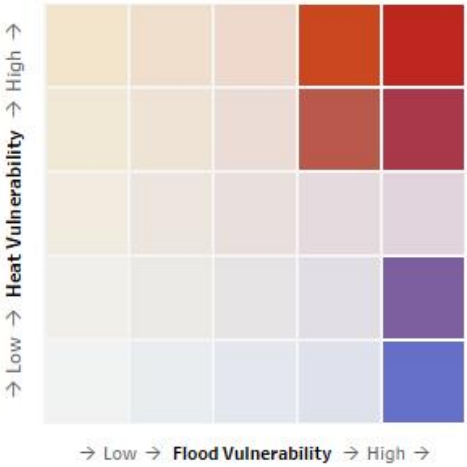
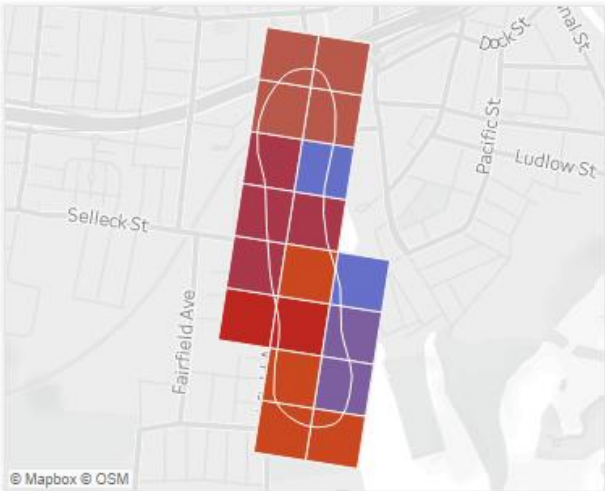
Zone of Shared Risk:  
7000-42-90-0  
Town: Stamford



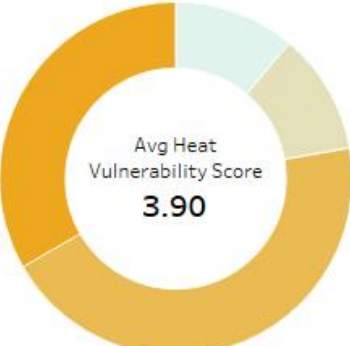
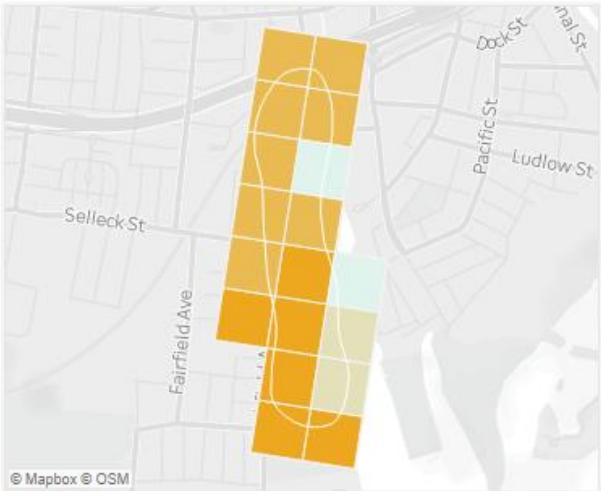
Flood Vulnerability



Combined Vulnerability



Heat Vulnerability



# Resilient Connecticut Phase II

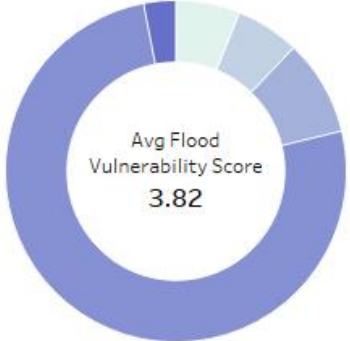
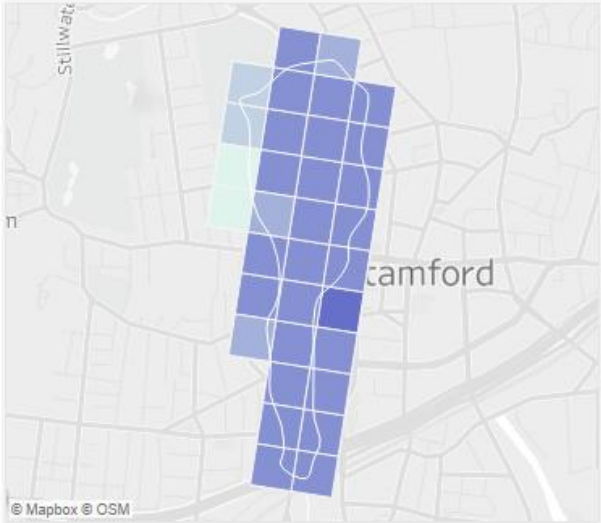
## Potential Regional Adaptation/Resilience Opportunity Areas



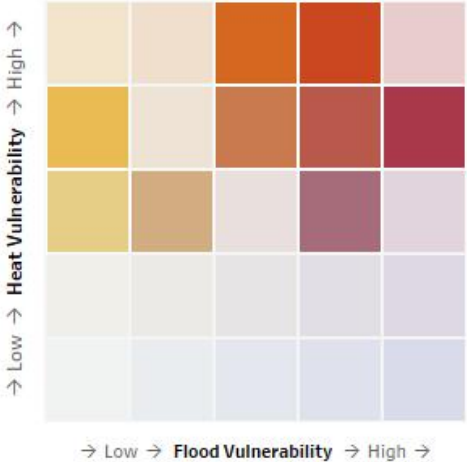
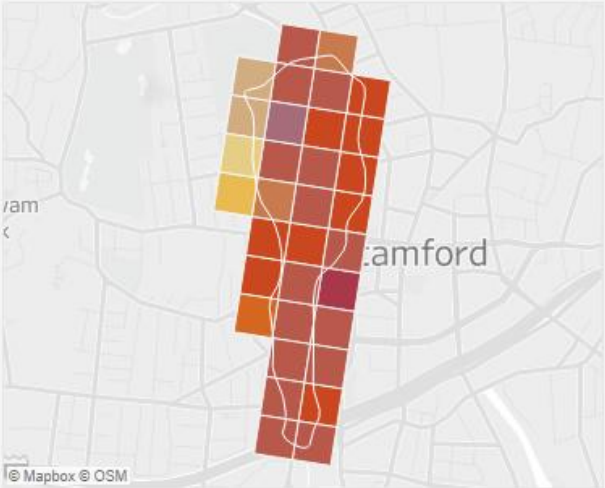
Zone of Shared Risk:  
7405-00-91-0  
Town: **Stamford**



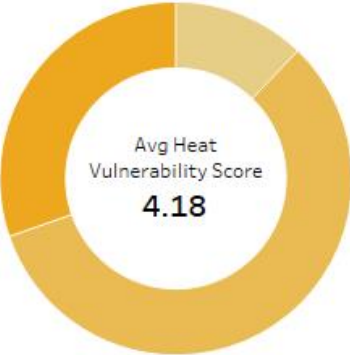
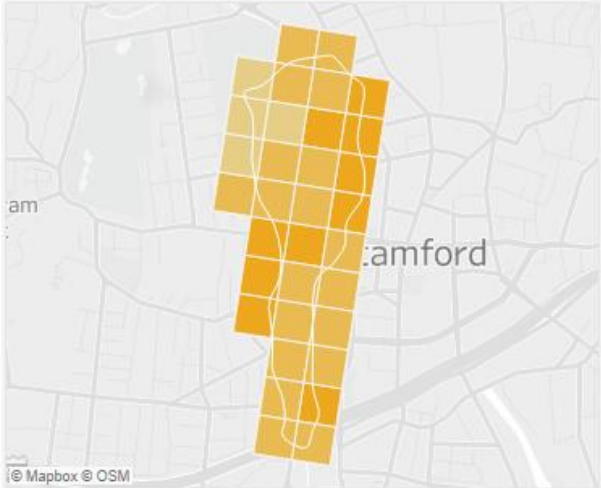
**Flood Vulnerability**



**Combined Vulnerability**



**Heat Vulnerability**



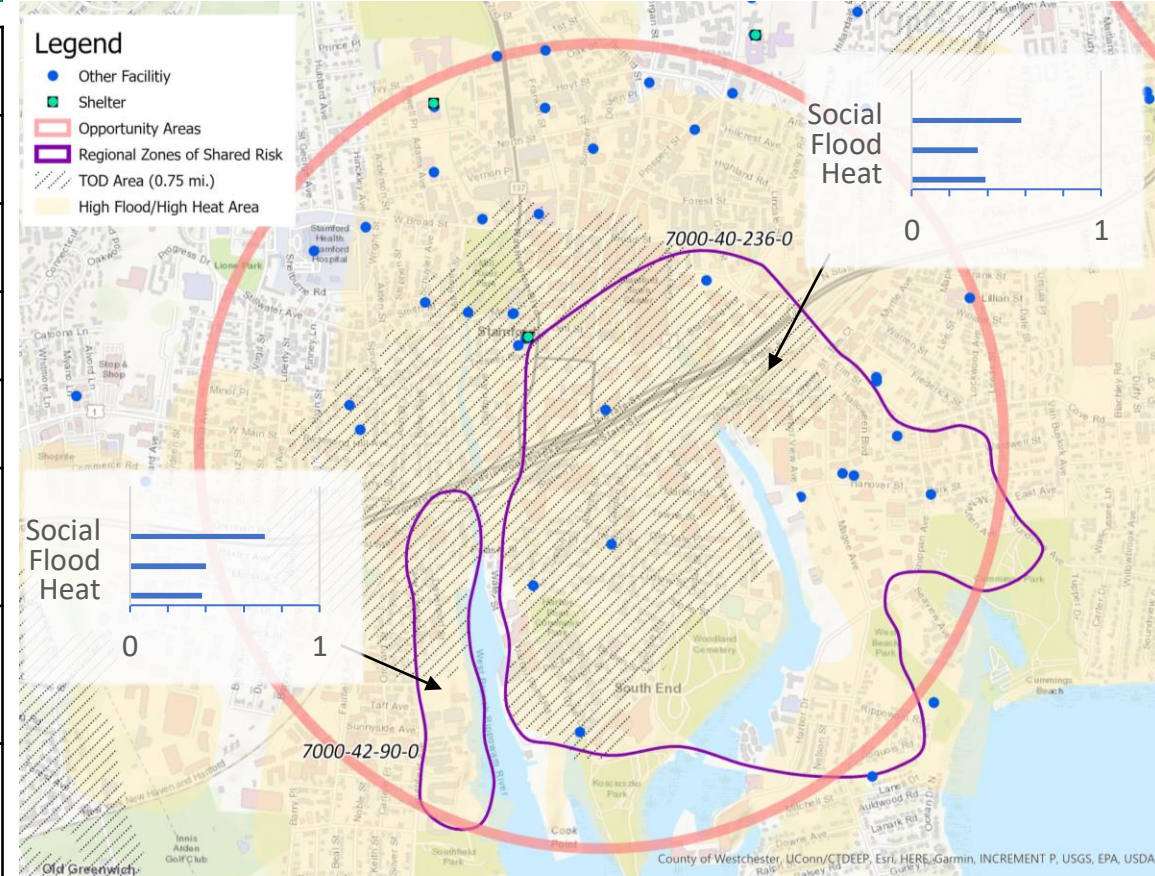
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #6 Location: Stamford  
 Name: Downtown Stamford Tier 1

Considerations	Characteristics of Area
Flood Vulnerability	0.35 to 0.40
Heat Vulnerability	0.38 to 0.39
Social Vulnerability	0.58 to 0.71
Zone of Shared Risk	Southwest Shoreline: 7000-42 & 7000-40
Regional Infrastructure Present	Substation, wastewater treatment plant, Amtrak/MetroNorth, I-95
Area of Planned Development Present	Downtown & South End Redevelopment
Federal Opportunity Zone Present	Harbor Point, Transportation Center, Downtown
Transit-Oriented Development Area	Stamford Station



# Resilient Connecticut Phase II

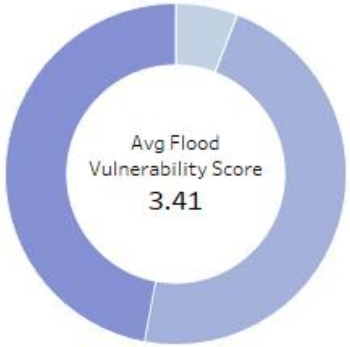
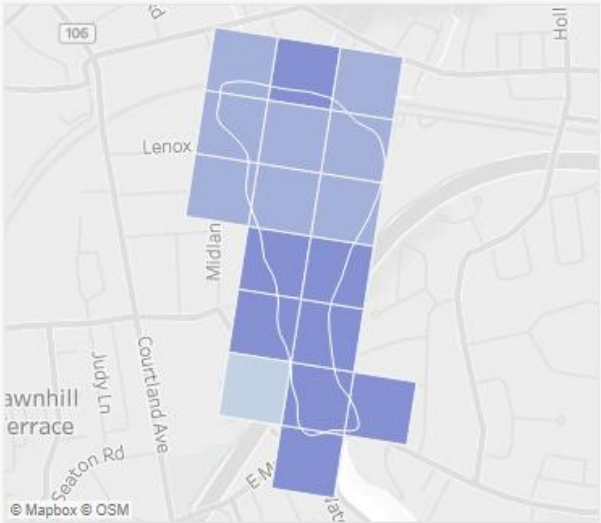
## Potential Regional Adaptation/Resilience Opportunity Areas



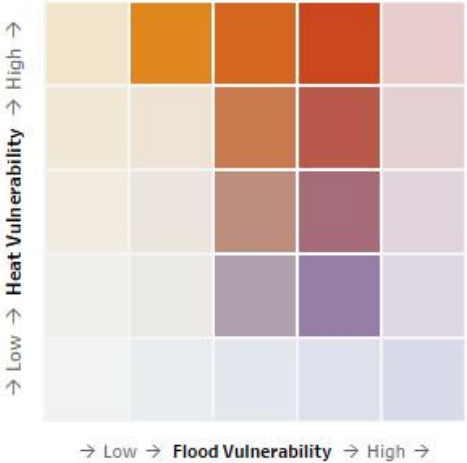
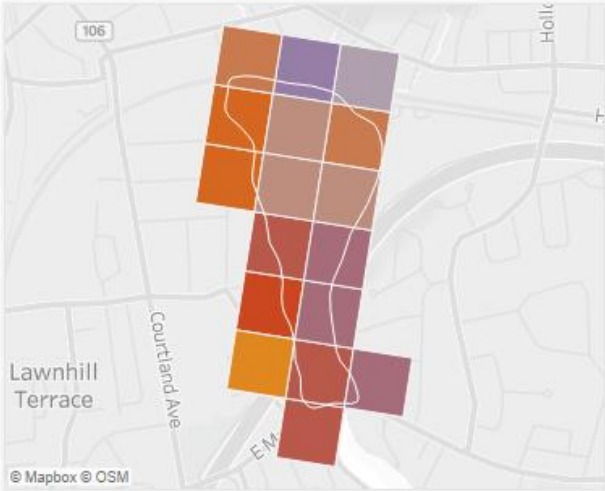
Zone of Shared Risk:  
7403-03-106-0  
Town: Stamford



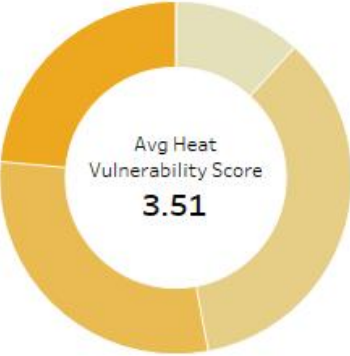
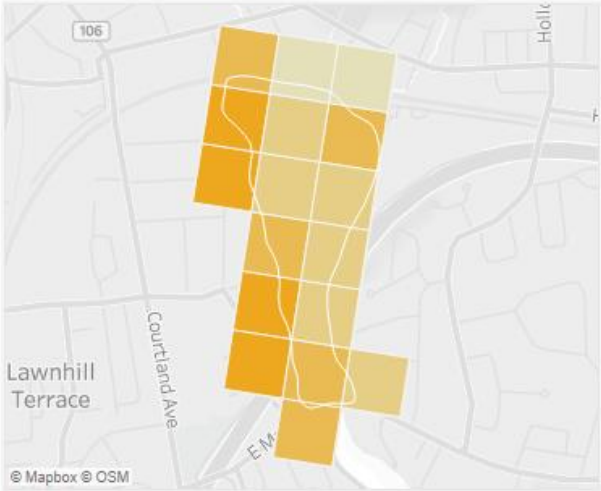
### Flood Vulnerability



### Combined Vulnerability



### Heat Vulnerability



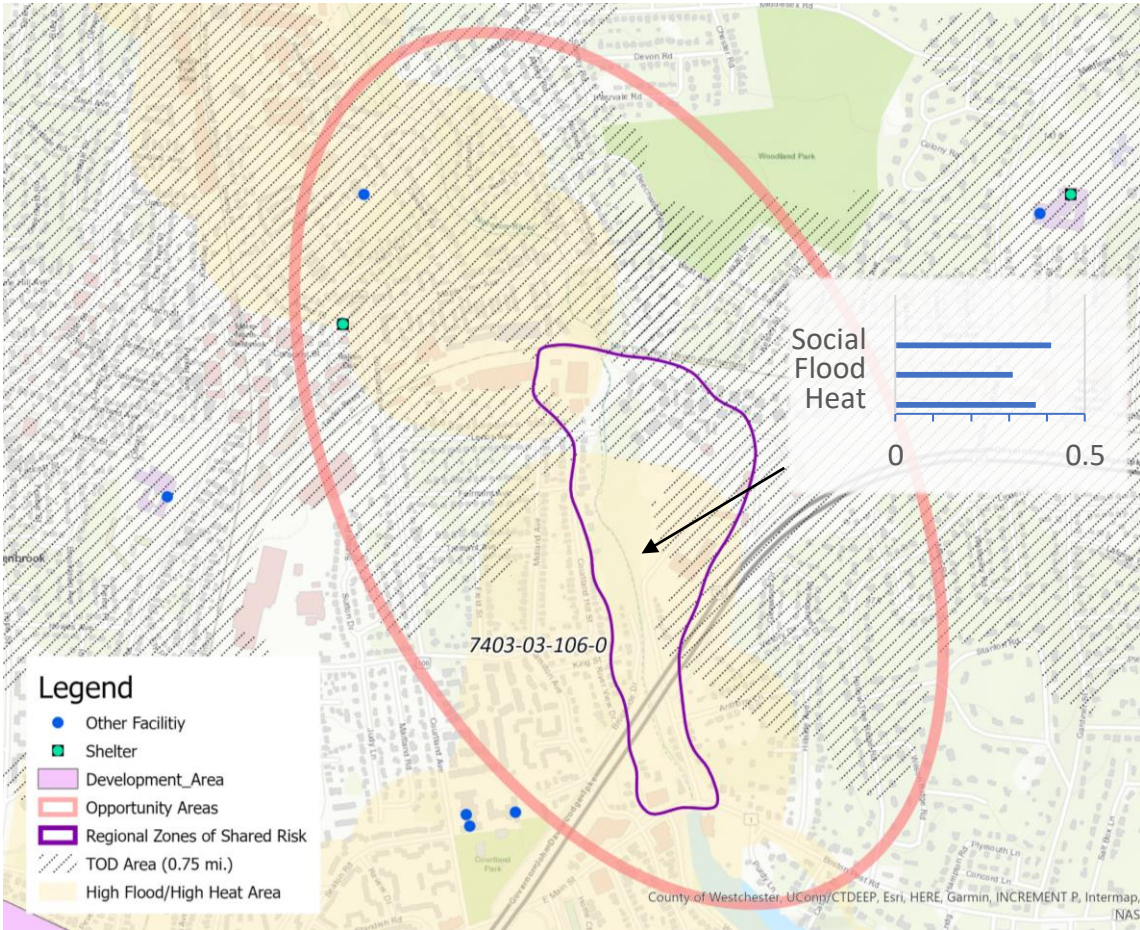
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #7  
 Name: Holly Pond  
 Location: Stamford & Darien  
 Tier 2

Considerations	Characteristics of Area
Flood Vulnerability	0.31
Heat Vulnerability	0.37
Social Vulnerability	0.41
Zone of Shared Risk	Noroton River: 7403-03
Regional Infrastructure Present	Amtrak/MetroNorth, I-95, transmission lines
Area of Planned Development Present	N/A
Federal Opportunity Zone Present	East Side of Stamford
Transit-Oriented Development Area	Glenbrook & Noroton Heights Stations





# Resilient Connecticut Phase II

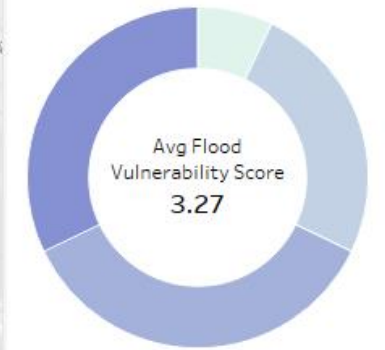
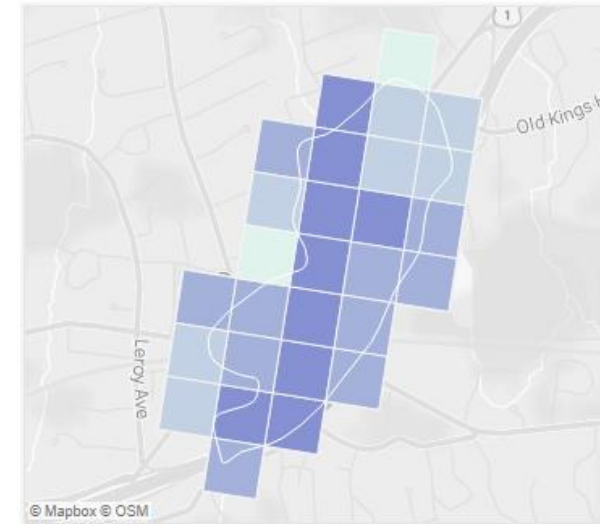
## Potential Regional Adaptation/Resilience Opportunity Areas



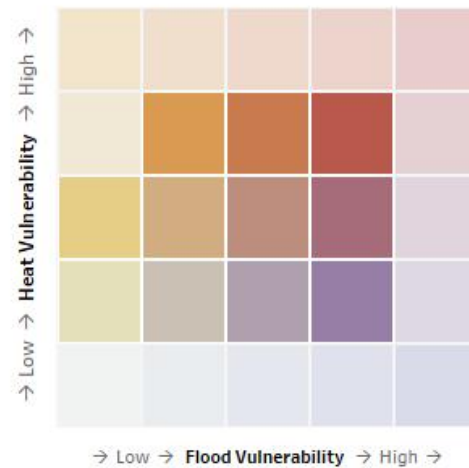
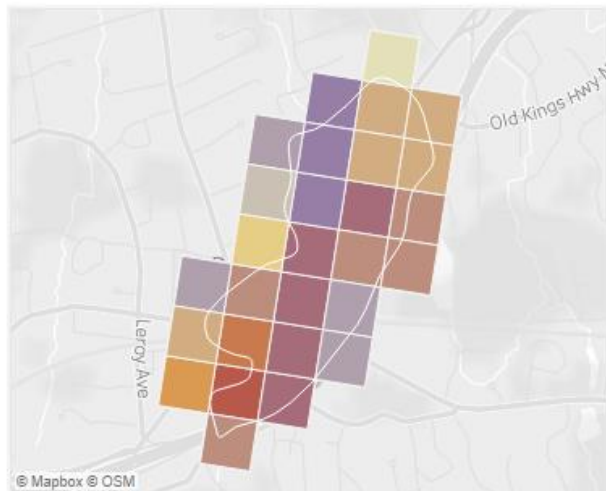
Zone of Shared Risk:  
7402-01-132-0  
Town: **Darien**



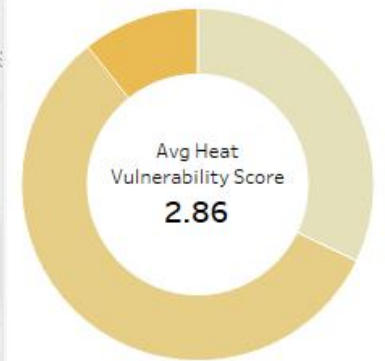
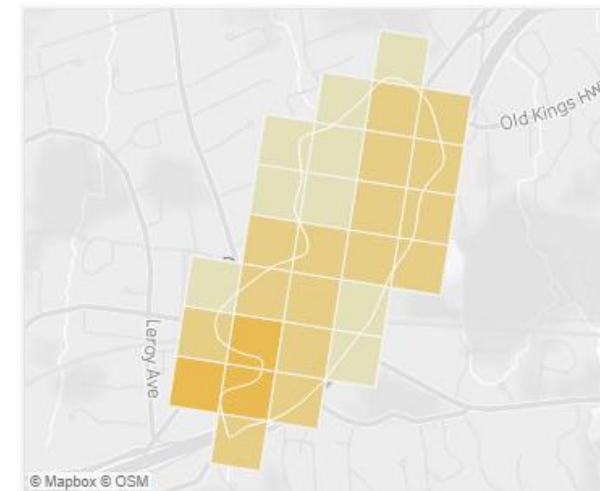
**Flood Vulnerability**



**Combined Vulnerability**



**Heat Vulnerability**



# Resilient Connecticut Phase II

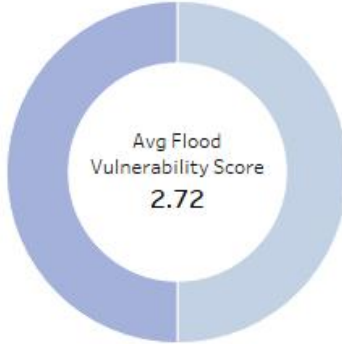
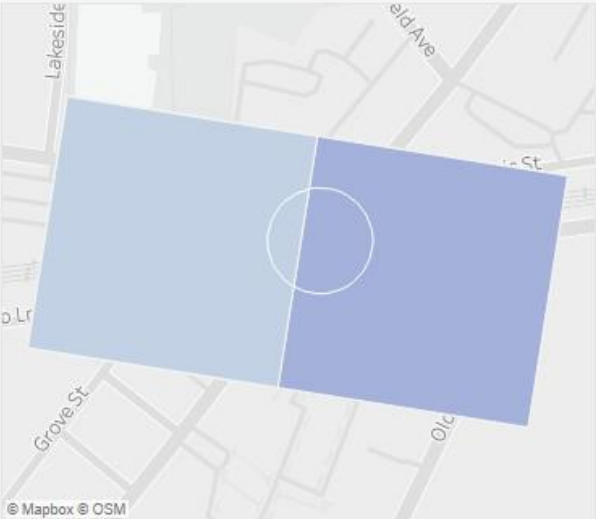
## Potential Regional Adaptation/Resilience Opportunity Areas



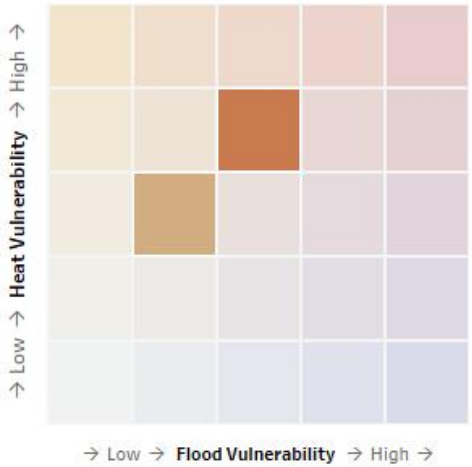
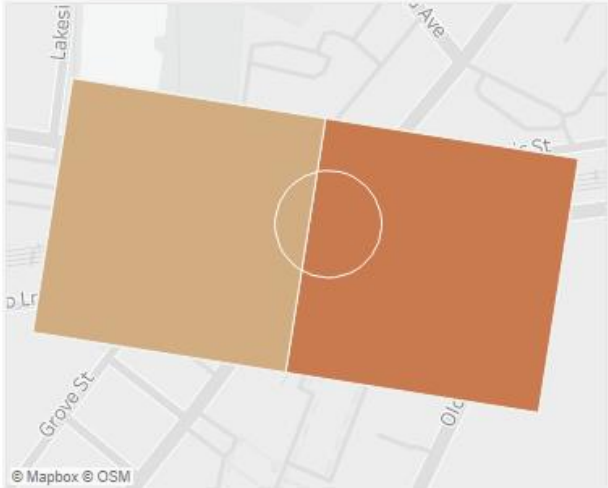
Zone of Shared Risk:  
7402-01-464-0  
Town: Darien



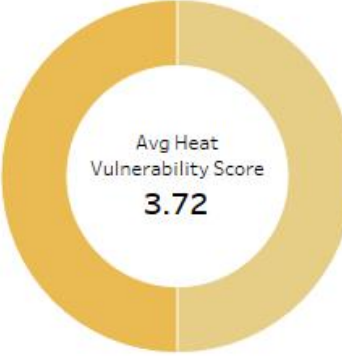
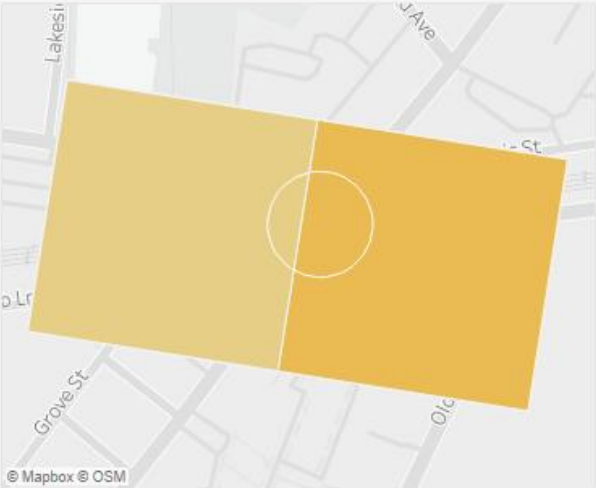
### Flood Vulnerability



### Combined Vulnerability



### Heat Vulnerability



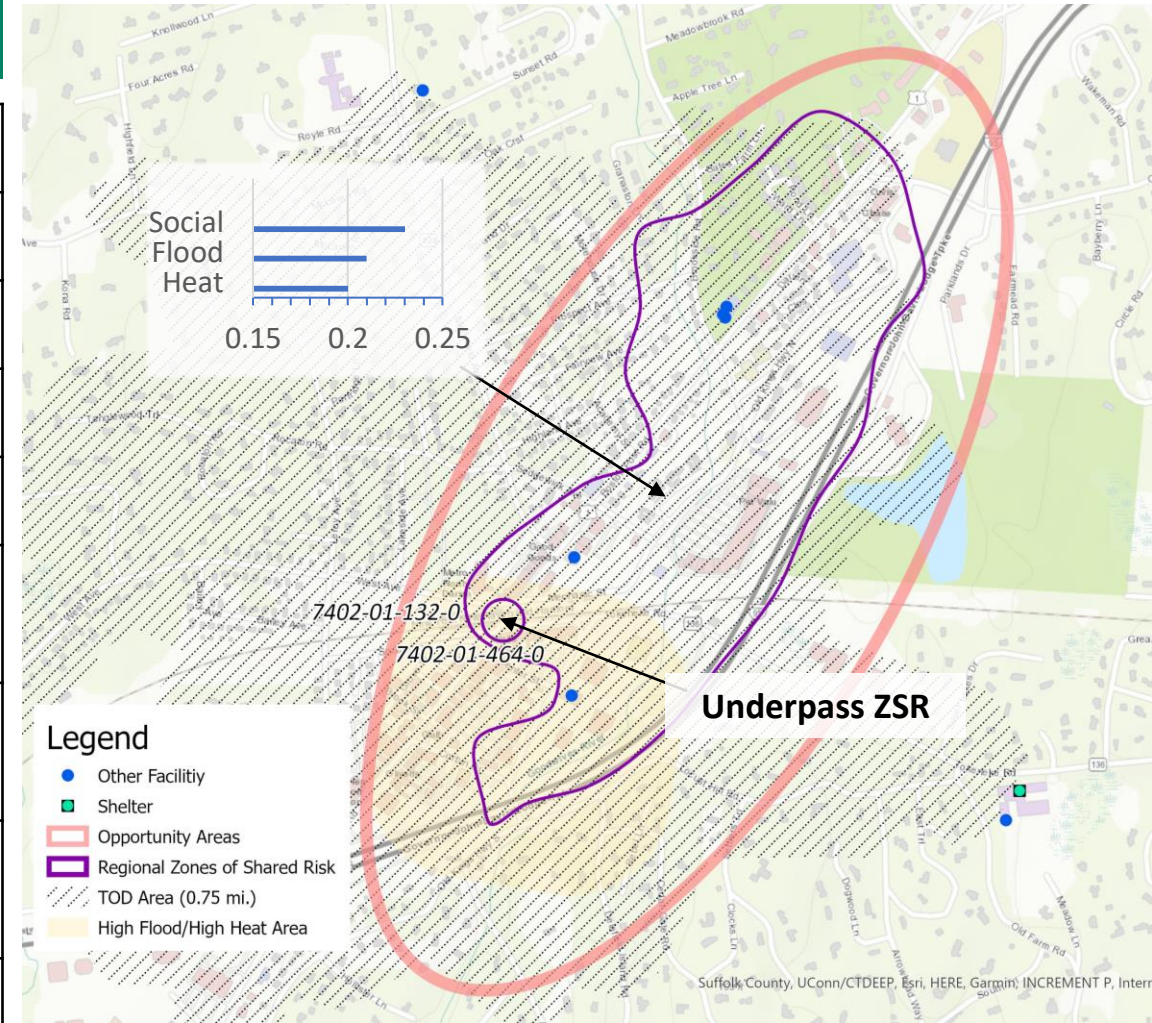
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #8  
 Name: Darien  
 Location: Darien  
 Tier 2

Considerations	Characteristics of Area
Flood Vulnerability	0.21
Heat Vulnerability	0.20
Social Vulnerability	0.23
Zone of Shared Risk	Goodwives River: 7402-01
Regional Infrastructure Present	Amtrak/MetroNorth, I-95, Museum
Area of Planned Development Present	N/A
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	Darien Station



# Resilient Connecticut Phase II

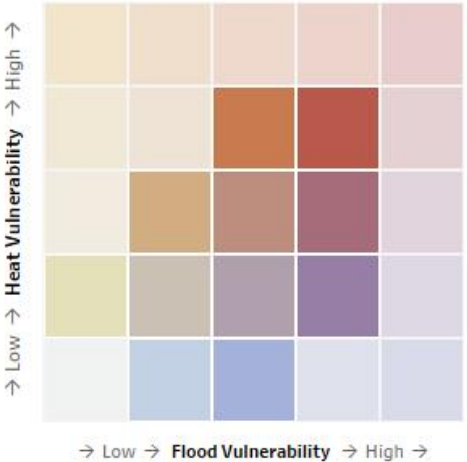
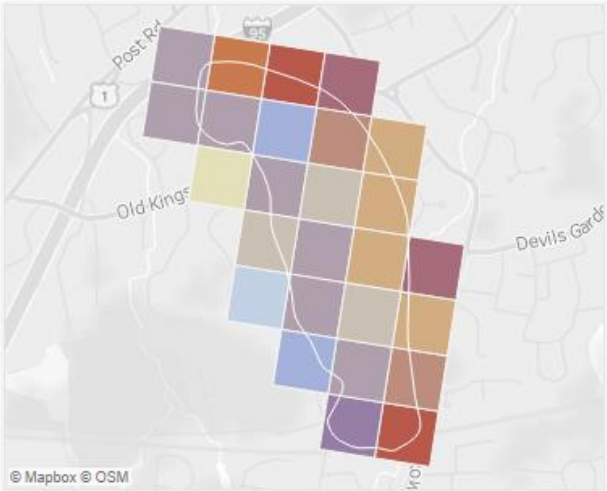
## Potential Regional Adaptation/Resilience Opportunity Areas



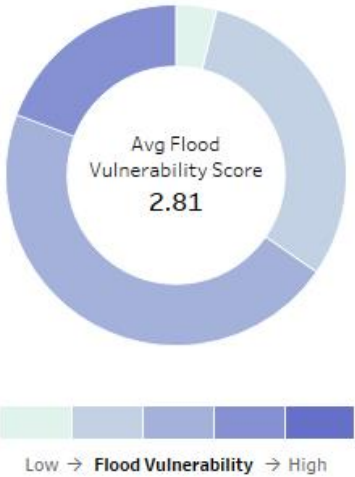
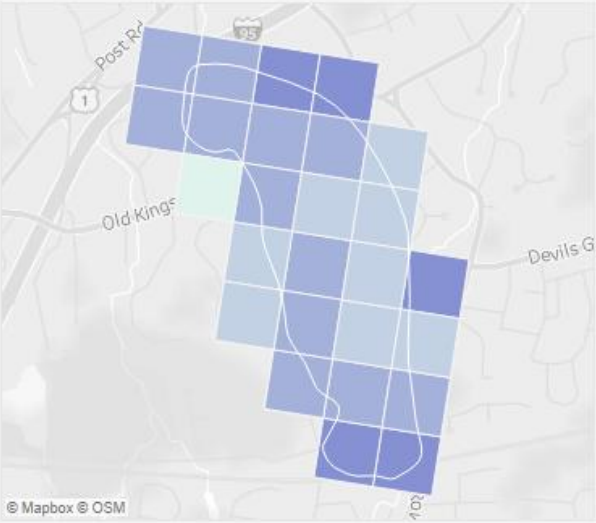
Zone of Shared Risk:  
7401-00-134-0  
Town: **Darien**



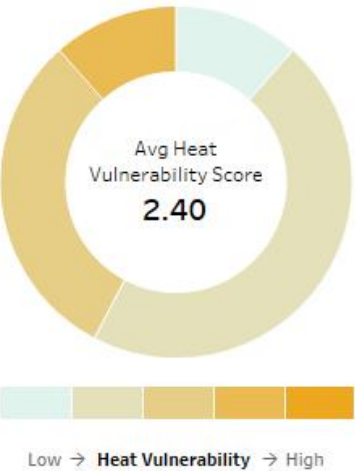
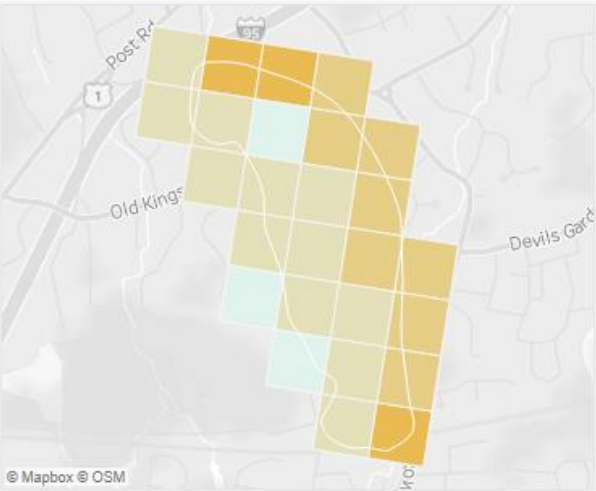
**Combined Vulnerability**



**Flood Vulnerability**



**Heat Vulnerability**



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



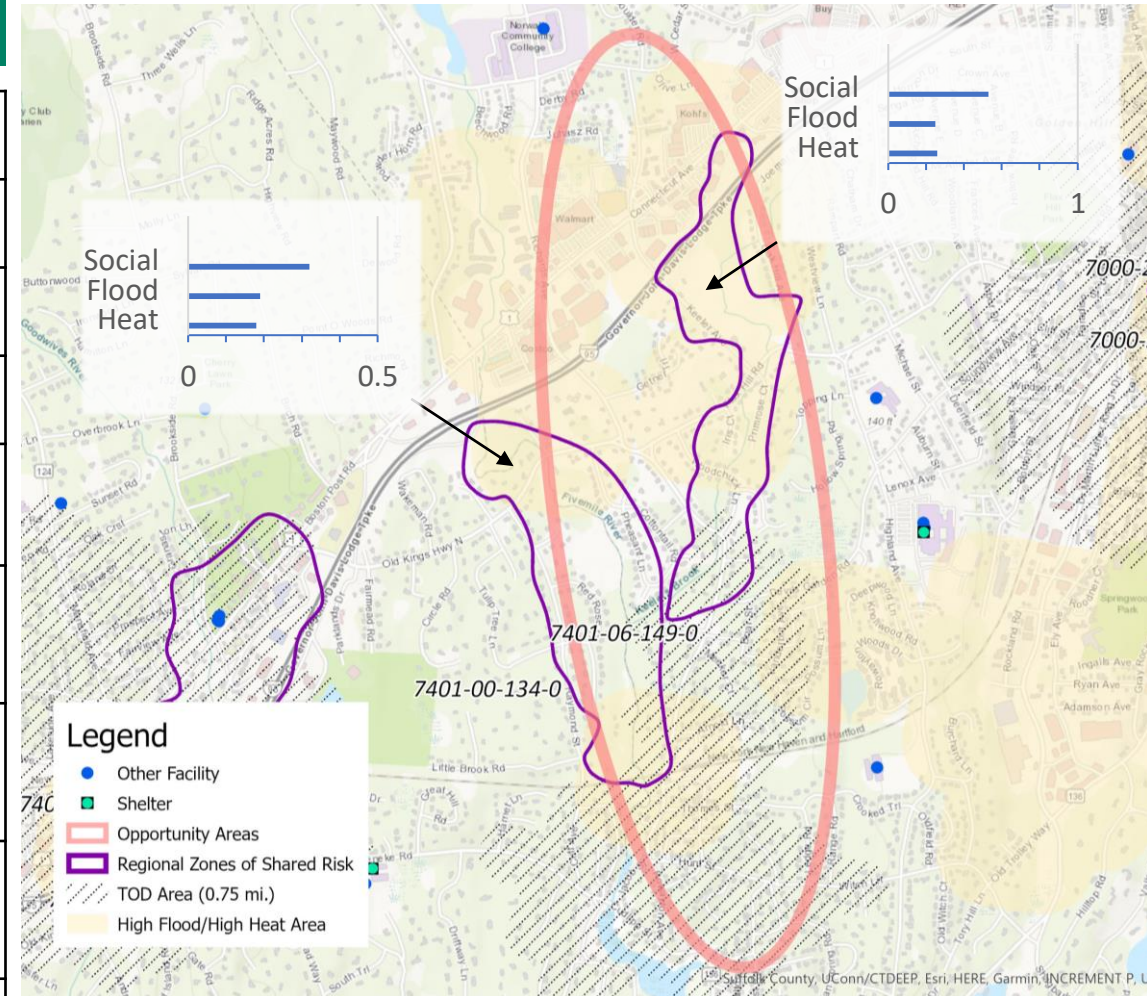
Area #9

Location: Norwalk & Darien

Name: Rowayton

Tier 2

Considerations	Characteristics of Area
Flood Vulnerability	0.19 to 0.25
Heat Vulnerability	0.18 to 0.26
Social Vulnerability	0.32 to 0.53
Zone of Shared Risk	Fivemile River: 7401-00 Keeler Brook: 7401-06
Regional Infrastructure Present	Amtrak/MetroNorth, I-95, transmission lines
Area of Planned Development Present	N/A
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	Rowayton Station



# Resilient Connecticut Phase II

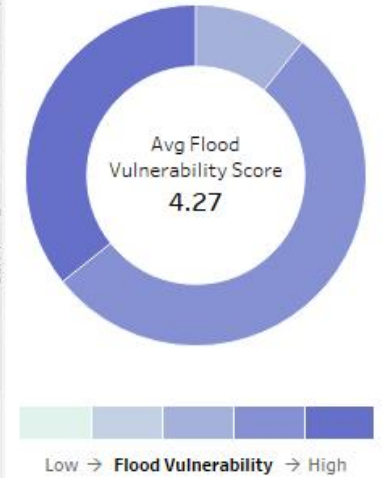
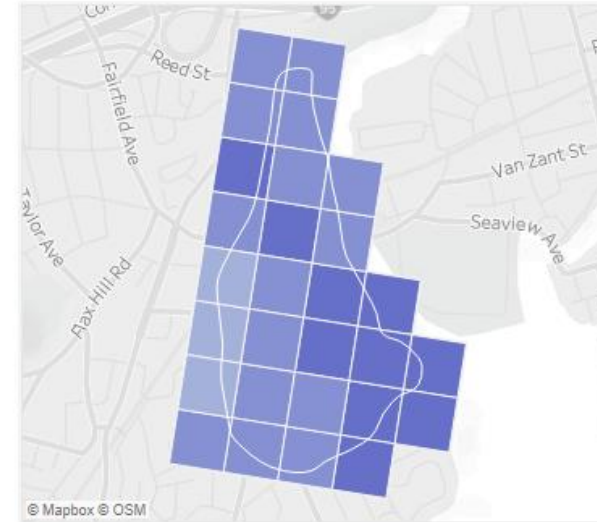
## Potential Regional Adaptation/Resilience Opportunity Areas



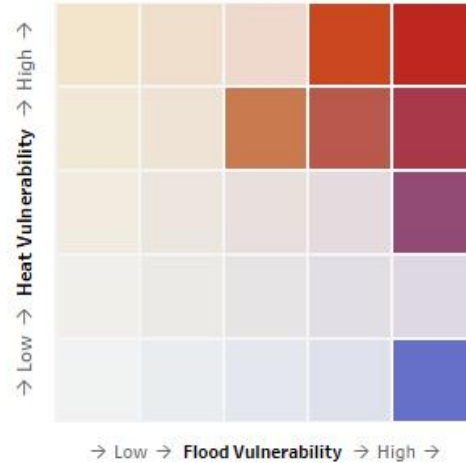
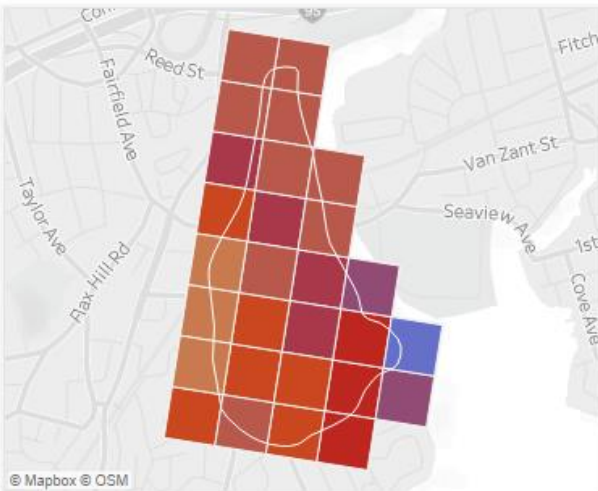
Zone of Shared Risk:  
7000-25-146-0  
Town: Norwalk



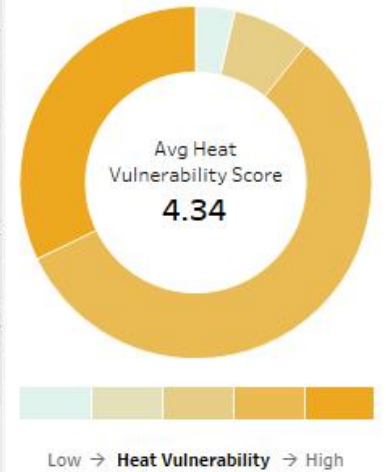
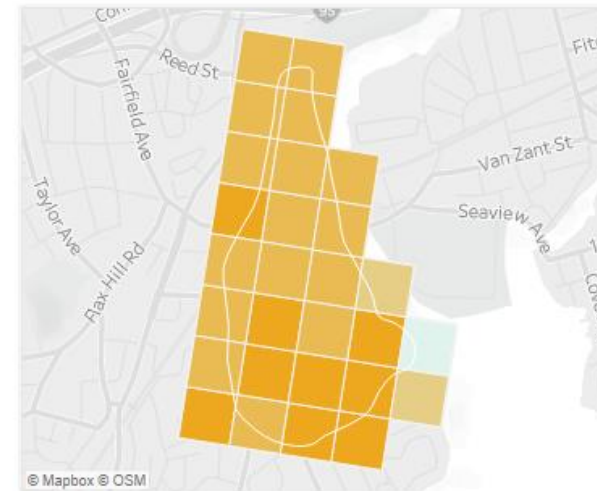
Flood Vulnerability



Combined Vulnerability



Heat Vulnerability



# Resilient Connecticut Phase II

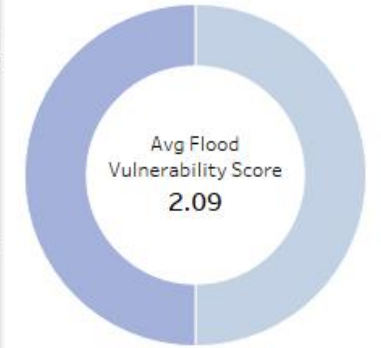
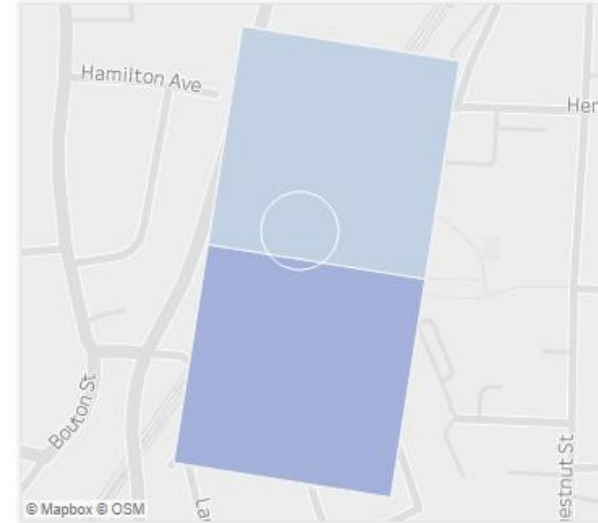
## Potential Regional Adaptation/Resilience Opportunity Areas



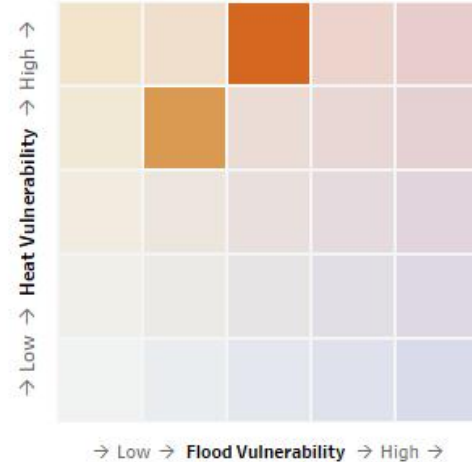
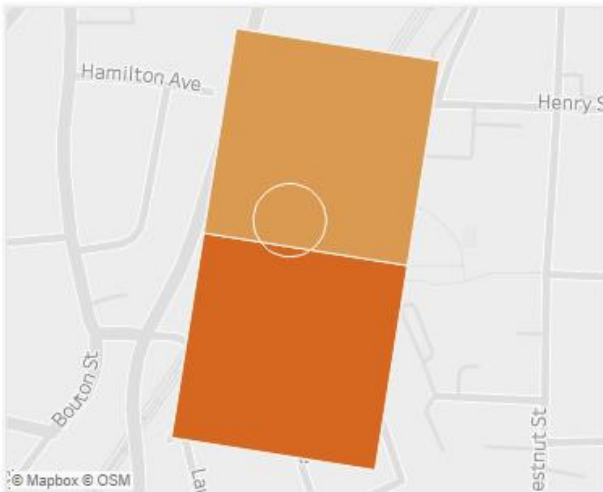
Zone of Shared Risk:  
7000-25-467-0  
Town: Norwalk



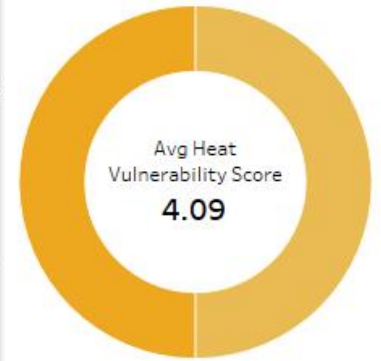
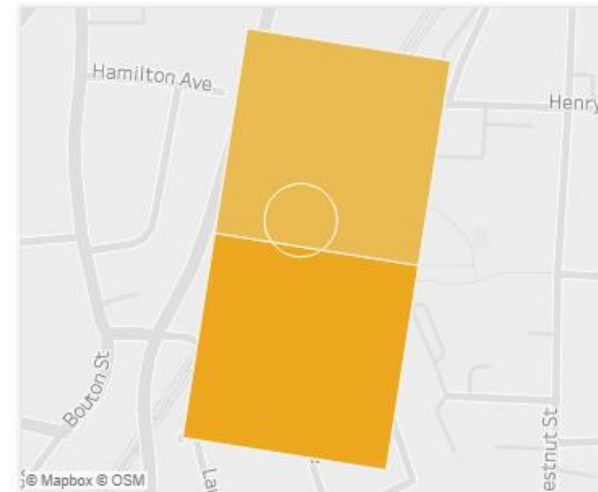
Flood Vulnerability



Combined Vulnerability



Heat Vulnerability







# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas

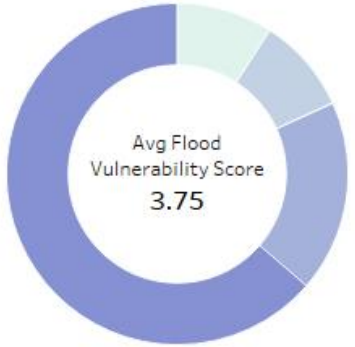
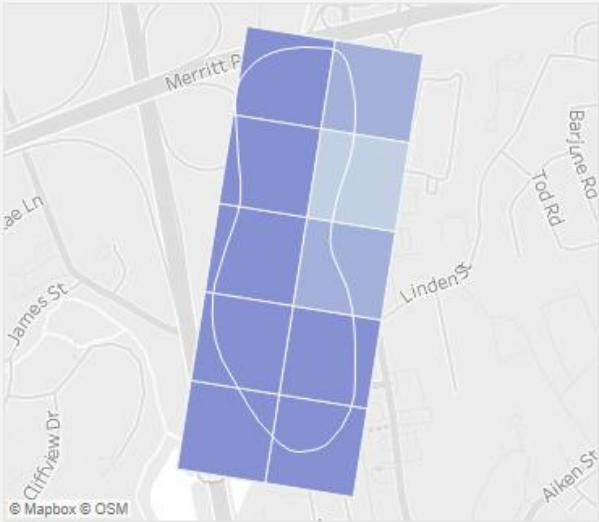


Zone of Shared Risk:  
7300-00-162-0  
Town: Norwalk

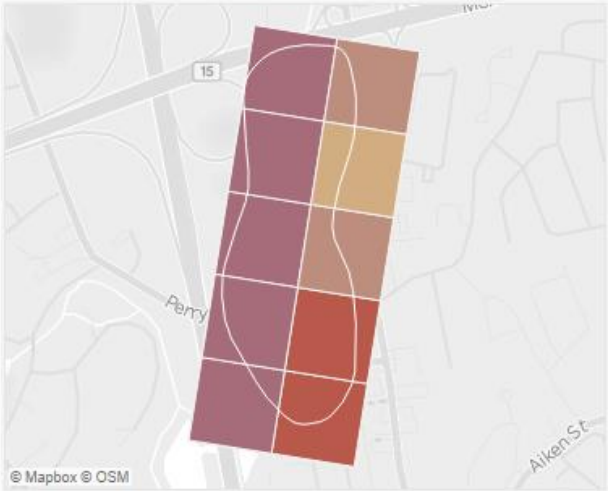


© 2021 Mapbox © OpenStreetMap

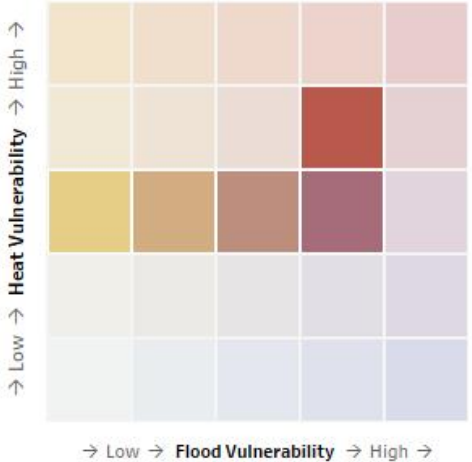
### Flood Vulnerability



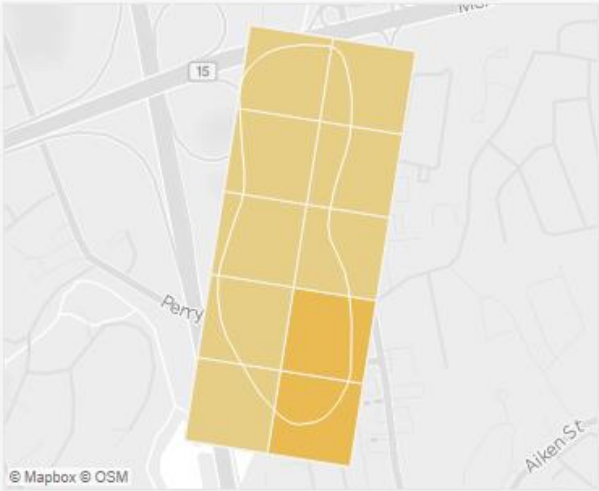
### Combined Vulnerability



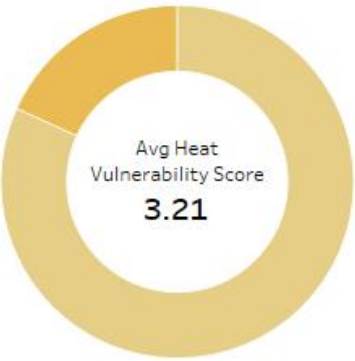
© Mapbox © OSM



### Heat Vulnerability



© Mapbox © OSM



# Resilient Connecticut Phase II

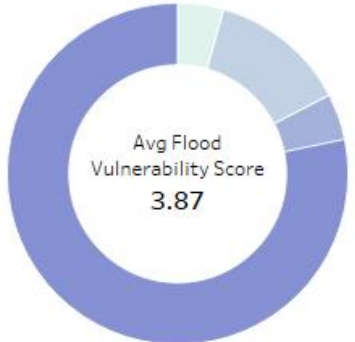
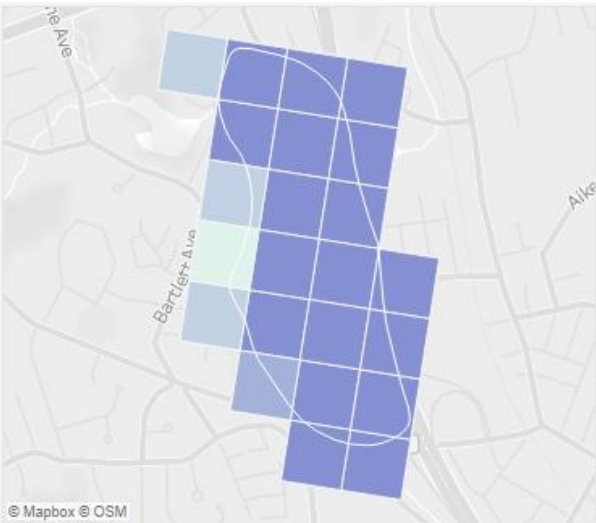
## Potential Regional Adaptation/Resilience Opportunity Areas



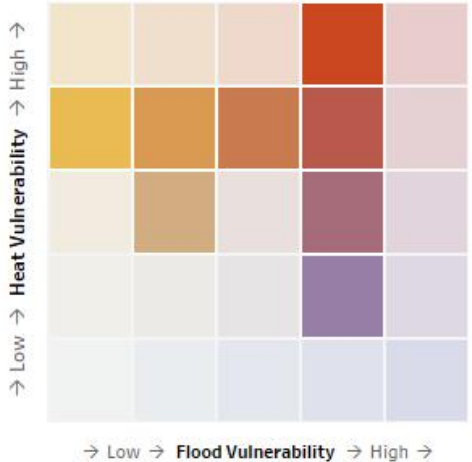
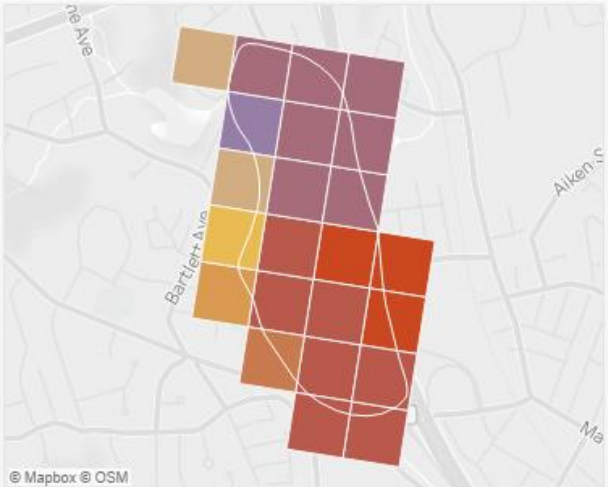
Zone of Shared Risk:  
7300-00-161-0  
Town: **Norwalk**



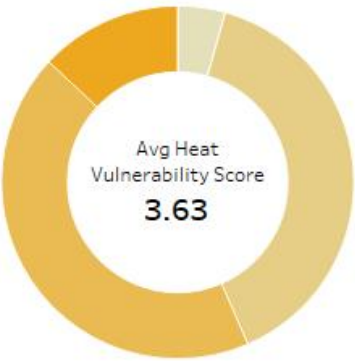
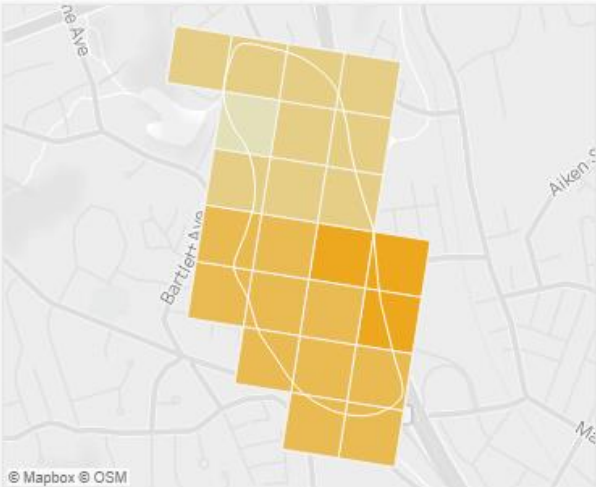
**Flood Vulnerability**



**Combined Vulnerability**



**Heat Vulnerability**



# Resilient Connecticut Phase II

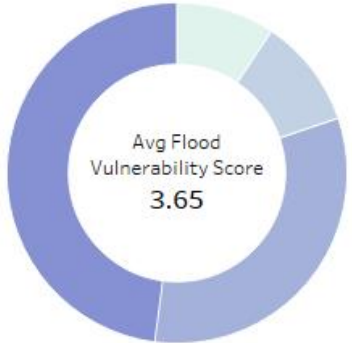
## Potential Regional Adaptation/Resilience Opportunity Areas



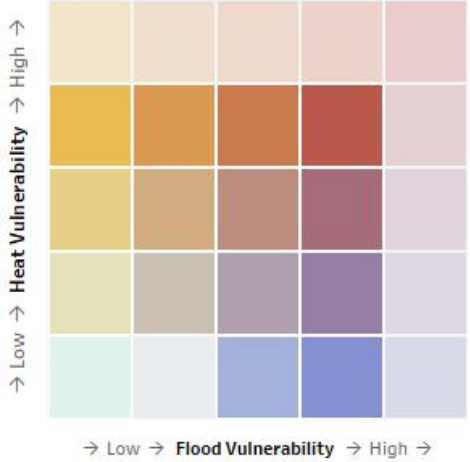
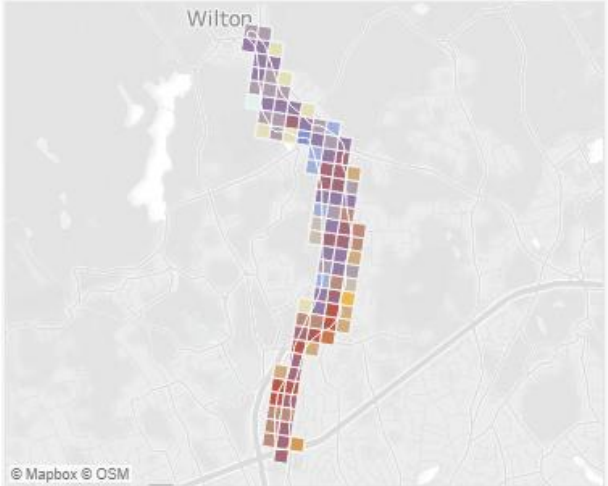
Zone of Shared Risk:  
7300-14-195-0  
Town: **Wilton**



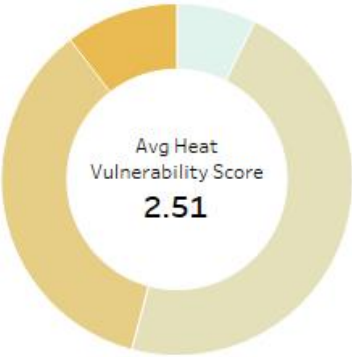
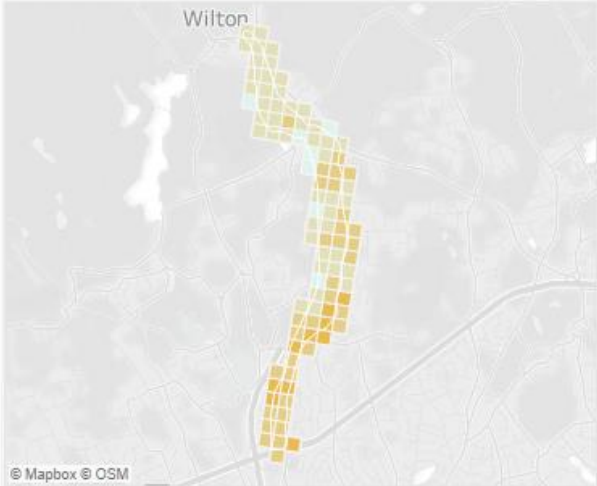
**Flood Vulnerability**



**Combined Vulnerability**



**Heat Vulnerability**



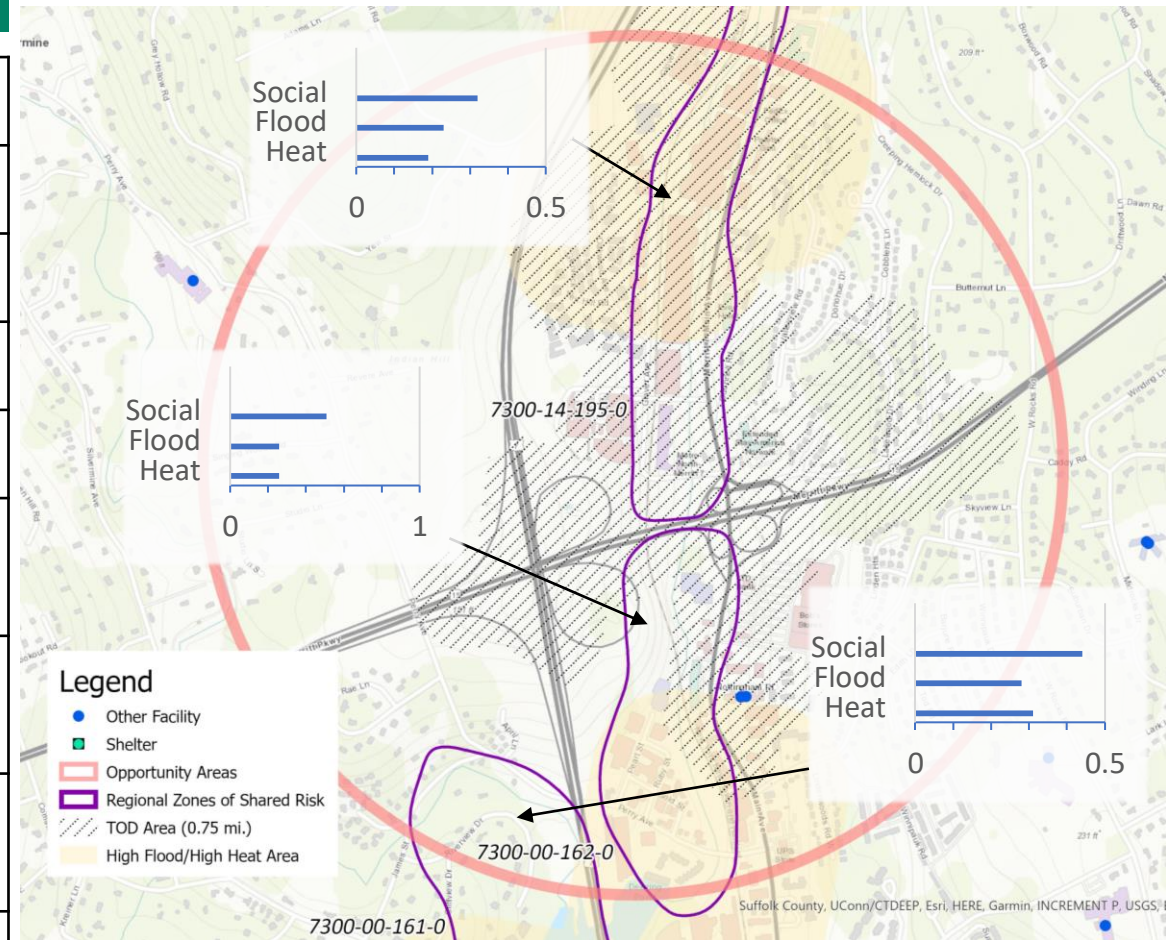
# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



Area #11  
 Name: Merritt 7  
 Location: Norwalk  
 Tier 1

Considerations	Characteristics of Area
Flood Vulnerability	0.23 to 0.28
Heat Vulnerability	0.19 to 0.31
Social Vulnerability	0.32 to 0.51
Zone of Shared Risk	Norwalk River: 7300
Regional Infrastructure Present	Substations, MetroNorth, Merritt Parkway, Route 7
Area of Planned Development Present	Mixed Use Centers
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	Merritt 7 Station



# Resilient Connecticut Phase II

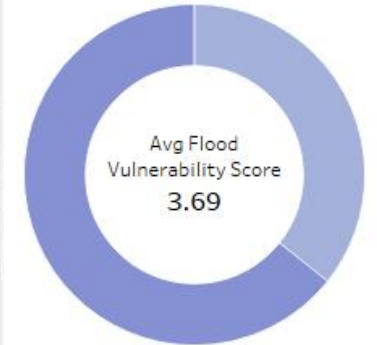
## Potential Regional Adaptation/Resilience Opportunity Areas



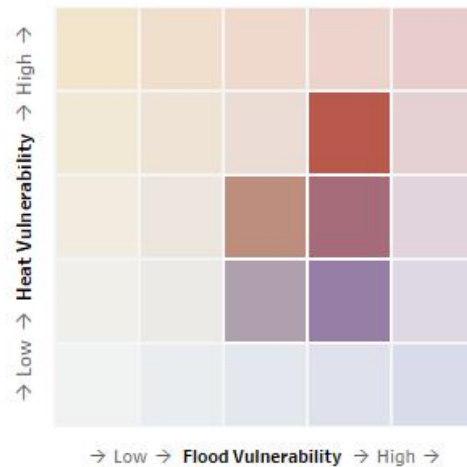
Zone of Shared Risk:  
7200-00-177-31  
Town: Westport



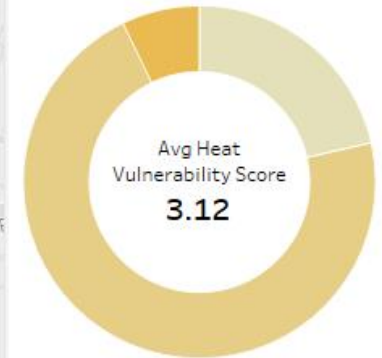
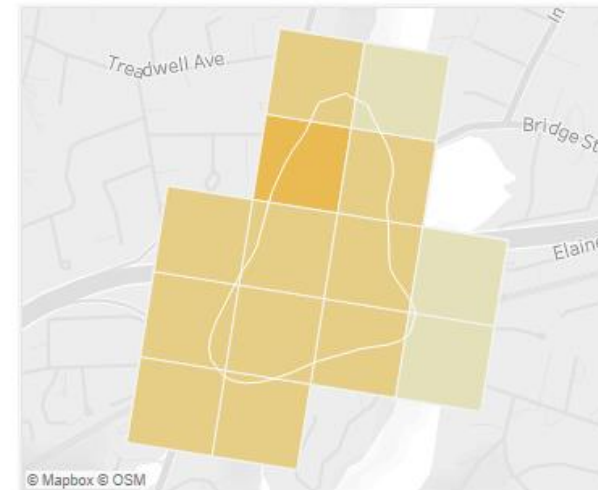
Flood Vulnerability



Combined Vulnerability



Heat Vulnerability



# Resilient Connecticut Phase II

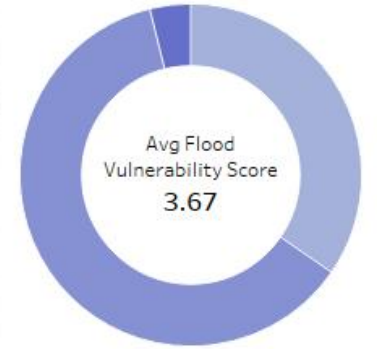
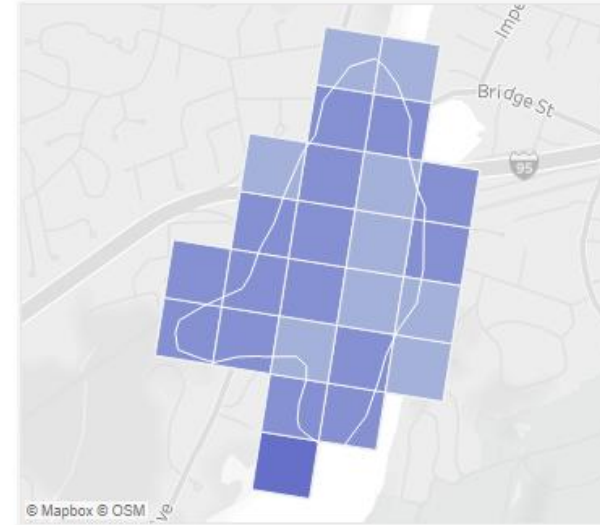
## Potential Regional Adaptation/Resilience Opportunity Areas



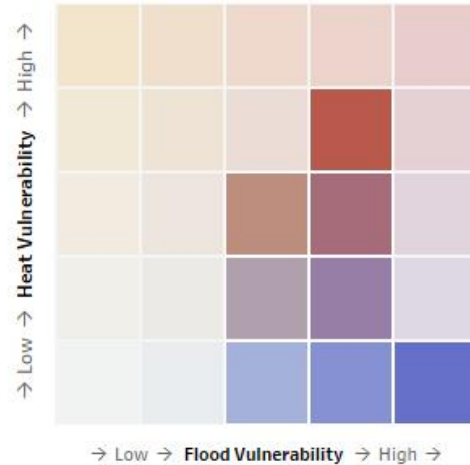
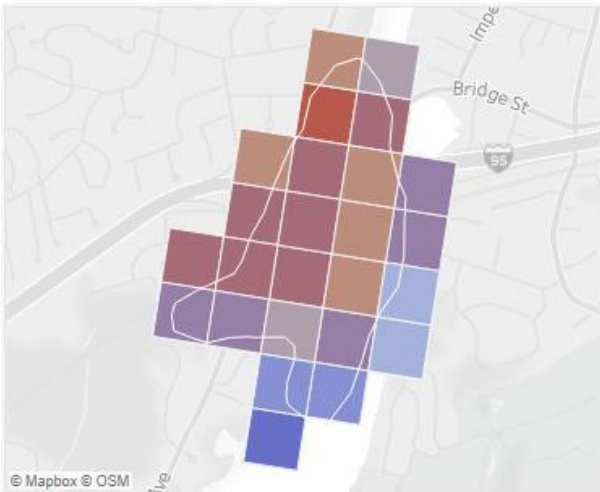
Zone of Shared Risk:  
7000-22-512-0  
Town: Westport



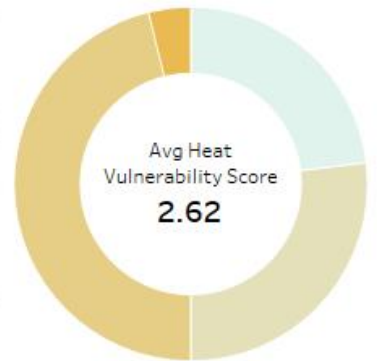
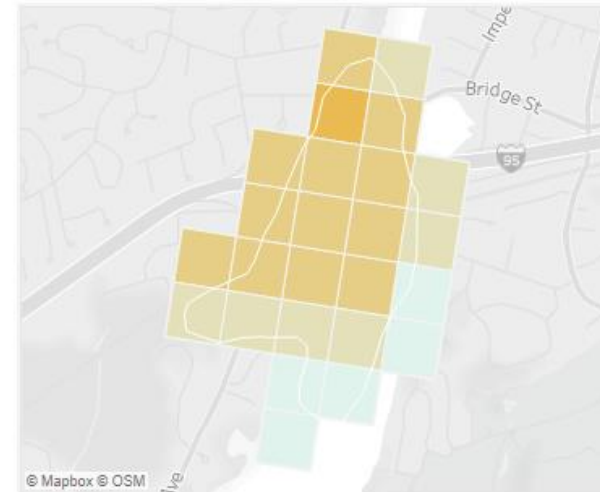
Flood Vulnerability



Combined Vulnerability



Heat Vulnerability



# Resilient Connecticut Phase II

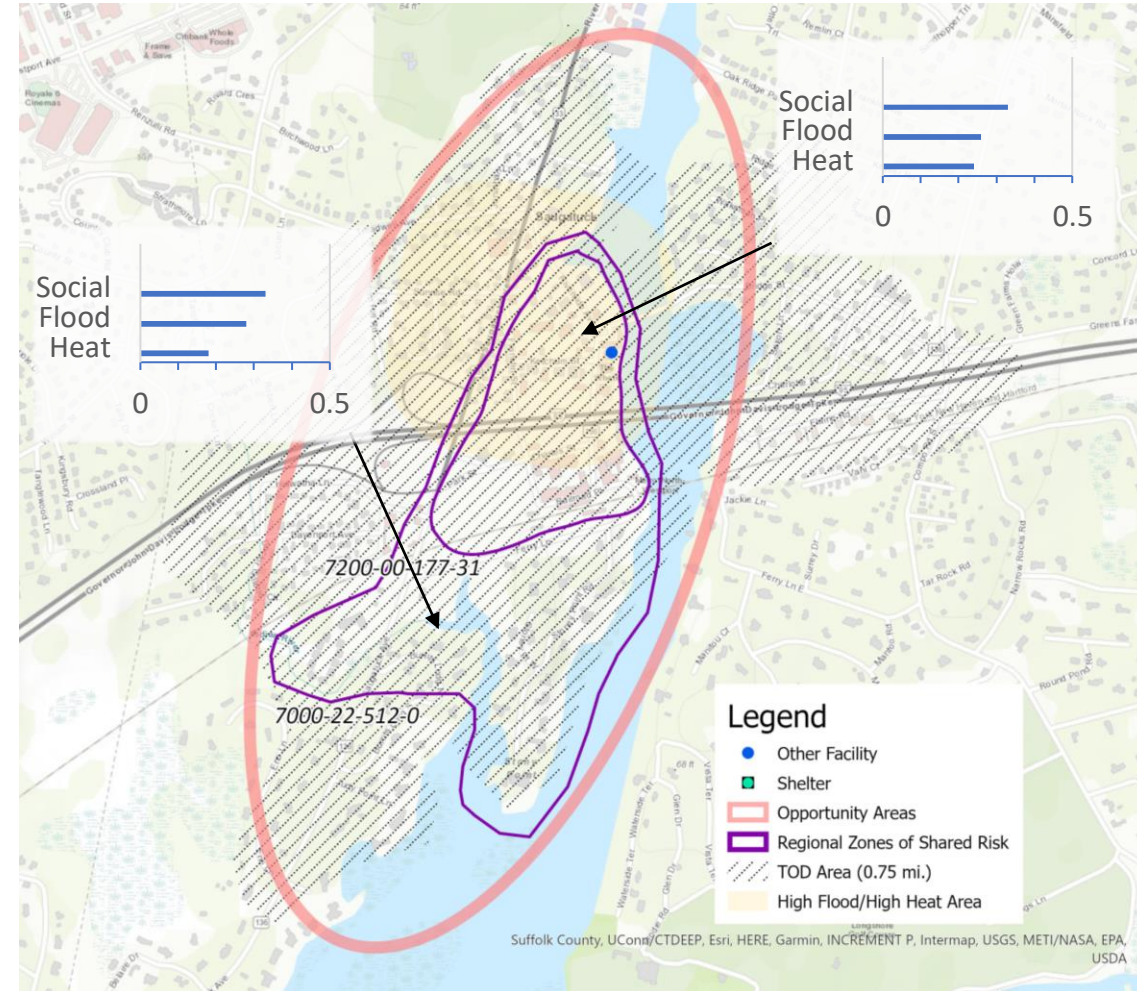
## Potential Regional Adaptation/Resilience Opportunity Areas



Area #12  
Name: Saugatuck

Location: Westport  
Tier 2

Considerations	Characteristics of Area
Flood Vulnerability	0.26 to 0.28
Heat Vulnerability	0.18 to 0.24
Social Vulnerability	0.33
Zone of Shared Risk	Saugatuck River: 7200-00 Southwest Shoreline: 7000-22
Regional Infrastructure Present	Amtrak/MetroNorth, I-95, electric transmission
Area of Planned Development Present	N/A
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	Saugatuck Station



# Resilient Connecticut Phase II

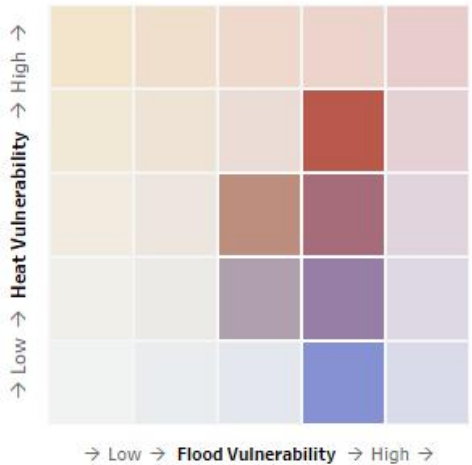
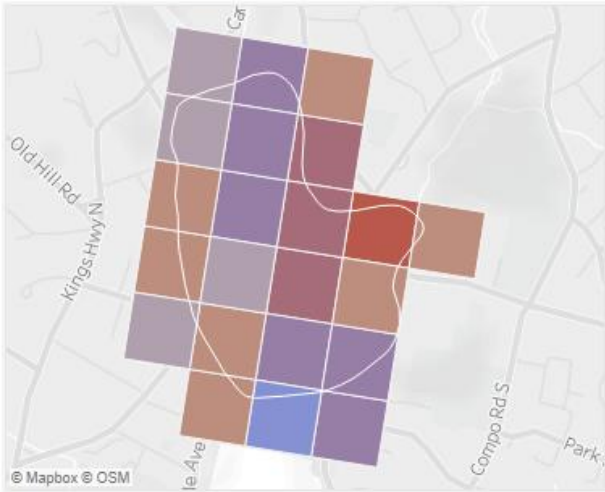
## Potential Regional Adaptation/Resilience Opportunity Areas



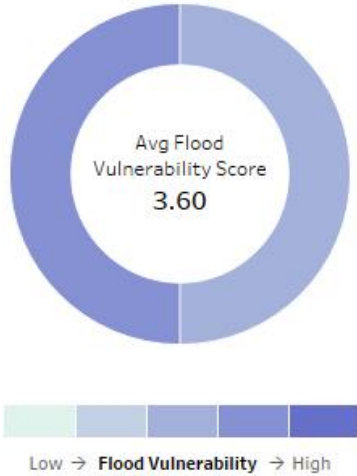
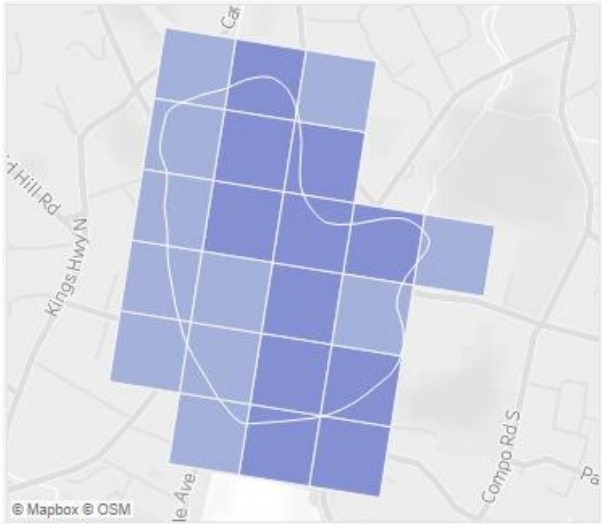
Zone of Shared Risk:  
7200-00-174-0  
Town: Westport



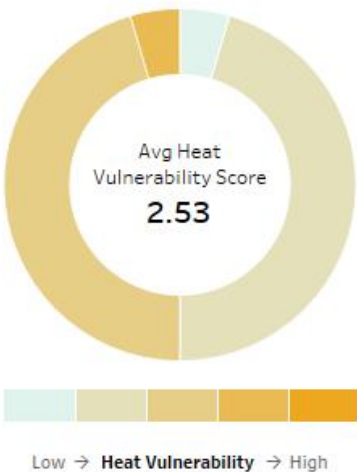
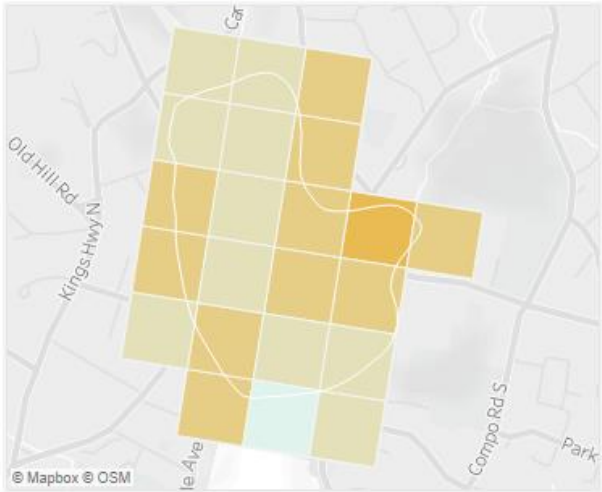
Combined Vulnerability



Flood Vulnerability



Heat Vulnerability





# Resilient Connecticut Phase II

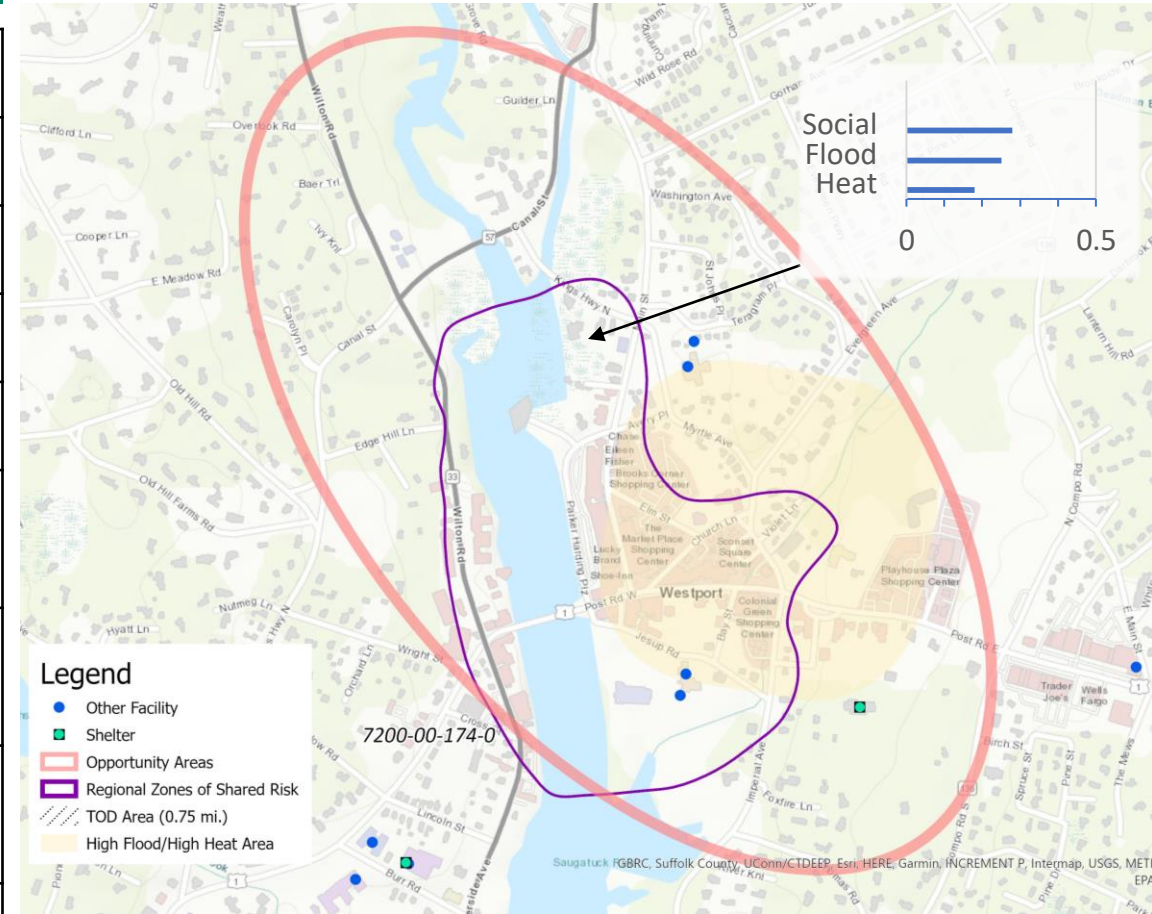
## Potential Regional Adaptation/Resilience Opportunity Areas



Area #13  
Name: Westport

Location: Westport  
Tier 2

Considerations	Characteristics of Area
Flood Vulnerability	0.25
Heat Vulnerability	0.18
Social Vulnerability	0.28
Zone of Shared Risk	Saugatuck River: 7200-00
Regional Infrastructure Present	Law enforcement, museums, commerce of regional interest
Area of Planned Development Present	Village District
Federal Opportunity Zone Present	N/A
Transit-Oriented Development Area	N/A



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



# Report Out



## Report Out

- **What are some of the key findings?**  
(missing asset/infrastructure, prioritize asset/infrastructure,
- **What are the take-aways?**  
(are some areas better opportunities, planning efforts/projects already under way, possible linkages with Resilient Connecticut and other efforts)
- **What should happen next?**  
(identify other opportunity areas, project types, municipal or community engagement, explore specific vulnerabilities)

# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



## Next Steps



# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



## Next Steps

- Draft report of potential adaptation/resilience opportunities to be issued June 2021
  - ✓ Will describe the flood and heat CCVI tools, the zones of shared risk, the TOD area in the regions, regional assets and infrastructure, etc.
- Transition from Resilient Connecticut Phase II to Resilient Connecticut Phase III
  - ✓ CIRCA's Resilient Connecticut team will work with COGs, municipalities, and State agency partners to advance the Phase II planning in a number of these opportunity areas over the next two years.
  - ✓ CIRCA's Resilient Connecticut team will be looking for the opportunity areas where they can make the most impact and provide the most value (e.g. where planning gaps exist, where alignment can be drawn with COG and community priorities, and where local or state leverage is possible).
  - ✓ CIRCA will help identify other funding opportunities going forward.

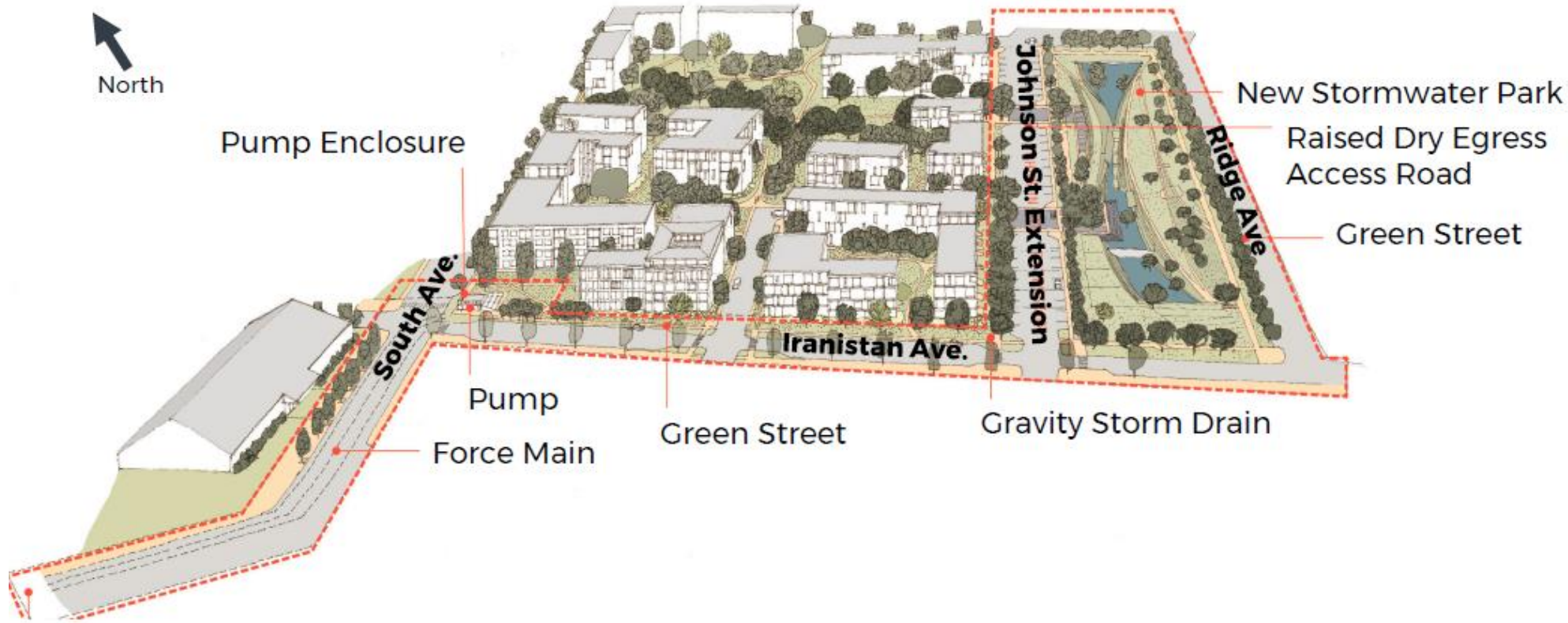
## Examples of Adaptation and Resilience Projects



- What are the flood-related benefits?
- What are the heat-related benefits?
- What are the benefits to vulnerable populations?

*Example: Resilient Bridgeport – Flood Protection System and Resilience Community Center*

## Examples of Adaptation and Resilience Projects



- What are the flood-related benefits?
- What are the heat-related benefits?
- What are the benefits to vulnerable populations?

*Example: Rebuild By Design Bridgeport – Stormwater Management Improvements and Green Infrastructure*

# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



## Examples of Adaptation and Resilience Projects



- What are the flood-related benefits?
- What are the heat-related benefits?
- What are the benefits to vulnerable populations?
- What is the connection to TOD and resilient corridors?

*Example: Meriden Green – Flood Mitigation Project near Meriden TOD*





## Examples of Adaptation and Resilience Projects



*Example: Branchville – Flood Mitigation Project near TOD?*

# Resilient Connecticut Phase II

## Potential Regional Adaptation/Resilience Opportunity Areas



## Resources

- Resilient Connecticut web site  
<https://resilientconnecticut.uconn.edu/>
- Climate fact sheets  
<https://resilientconnecticut.uconn.edu/2020/10/07/connecticut-climate-fact-sheets-now-available/>
- Climate Change Vulnerability Index (CCVI)  
<https://resilientconnecticut.uconn.edu/ccvi/>
- Resilient Connecticut Story Map  
<https://mminc.maps.arcgis.com/apps/MapSeries/index.html?appid=c700755a764e421596f9fa3719ea5262&folderid=f47a498583604f3f9601ce1de67f7407>