



CONNECTICUT

Sustainability & Resiliency Week

Roadmap to Resilience: Driving Resilience Improvement and Investment in Fair Haven — and Beyond

September 24, 2024



Welcome & Agenda

Welcome & Housekeeping

Opening Remarks by Mayor of New Haven, Justin Elicker

Panelist Remarks from:

- John Truscinski
- Lee Cruz
- Steven Winter
- Randy Collins
- Leigh Whelpton

Moderated Panel Discussion

Q&A



Opening Remarks



Mayor of the City of New Haven, Justin Elicker

51st elected mayor of New Haven
Sworn in January 2020

Re-elected to a third term in 2023

Today's Speakers



Randy Collins,
Associate Director,
Public Policy &
Advocacy, CCM



Lee Cruz, Director of
Strategic
Partnerships, the
Community
Foundation for
Greater New Haven



John Truscinski,
Director of Resilience
Planning,
Connecticut Institute
for Resilience and
Climate Adaptation



Leigh Whelpton,
Director of
Environmental
Infrastructure
Programs,
Connecticut Green
Bank



Steven Winter,
Executive Director of
Climate &
Sustainability, City of
New Haven



A RESILIENCE ROAD MAP FOR CONNECTICUT

September 24th, 2024

John Truscinski, CFM, Director of Resilience Planning, CIRCA

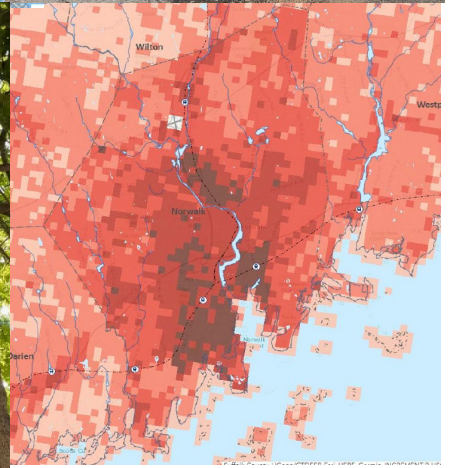
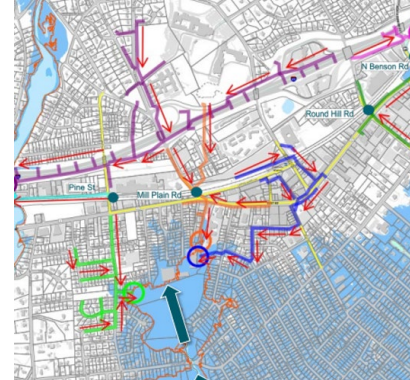
CIRCA Mission

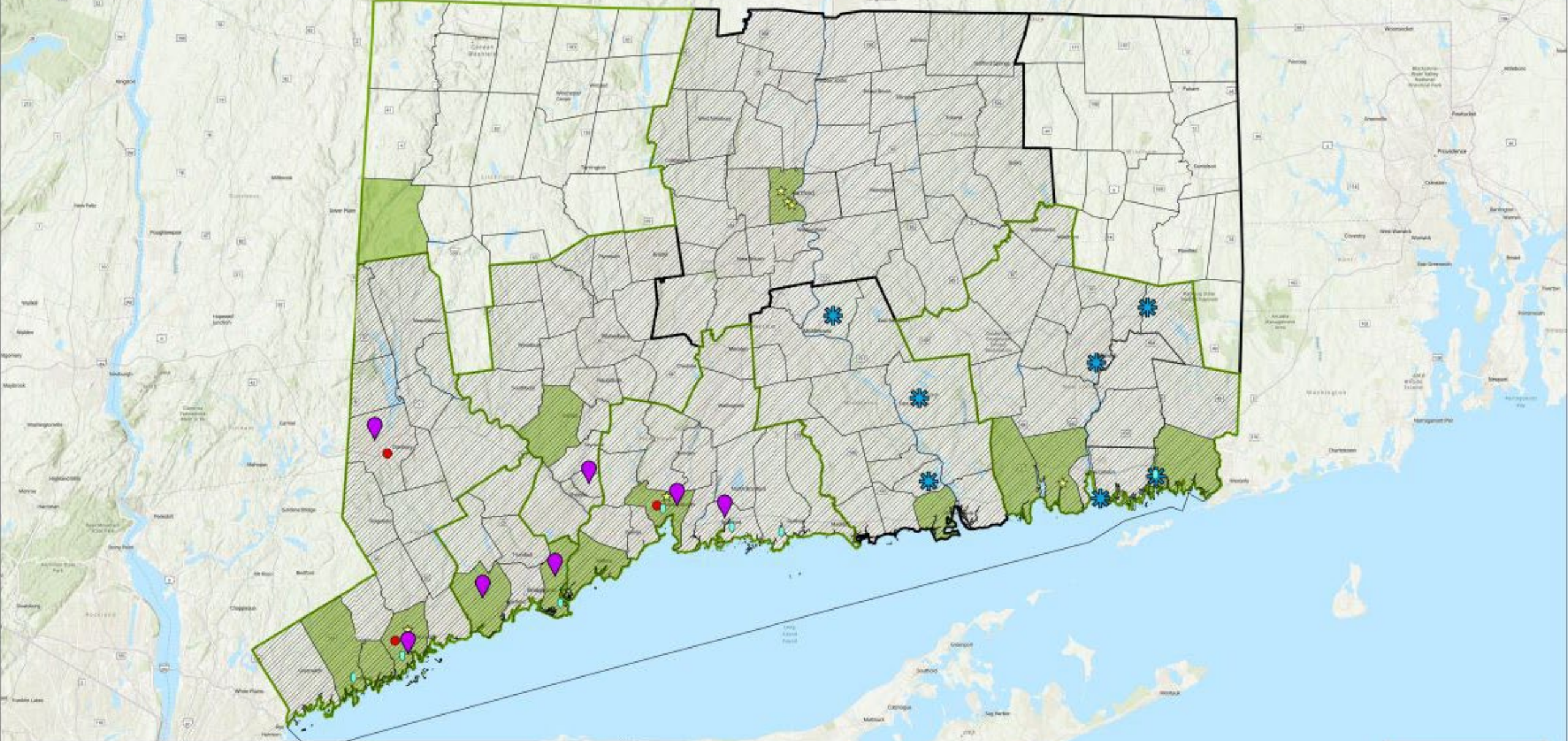
Increase the resilience and sustainability of vulnerable communities in Connecticut's coastal and inland areas to severe storms and the growing impacts of climate change on the natural, built, and human environment in response to critical, identified needs and priorities.



CIRCA – Resilient Connecticut

- The CT Institute for Resilience & Climate Adaptation (CIRCA) initiated Resilient CT in Fairfield and New Haven Counties 2018 – 2023. Program expanded to New London, Middlesex, Hartford, and Tolland Counties in 2021-2024.
- Goals are to support development of a statewide resilience project pipeline, increase coordination across municipal, regional, and state planning.
- Data & mapping tools to support project development include: Climate Change Vulnerability Index (CCVI) for flooding and heat, zones of shared risk, resilience opportunity areas.
- EJ projects include creation of a statewide EJ Screen mapping tool in partnership with DEEP/DPH and EJ community organizations, and Climate & Equity Grants program w/ DEEP.





CIRCA Projects in CT

Legend

-  Resilient CT 1.0 Phase III Projects
-  CIRCA Heat Sensors
-  Climate and Equity Grants
-  COGs Awarded Municipal Resilience Grants
-  Towns Awarded Municipal Resilience Grants
-  CT Towns Engaged With CIRCA
-  Potential Resilient CT
-  CIRCA Water Sensors





FAIR HAVEN FLOODING

RESILIENT FAIR HAVEN



Superstorm Sandy, Humphrey St Underpass



December 23, Haven + Clay Street Intersection



December 23, Lloyd Street Street end



December 23, Front Street Backyard Flooding



December 23, Criscuolo Park



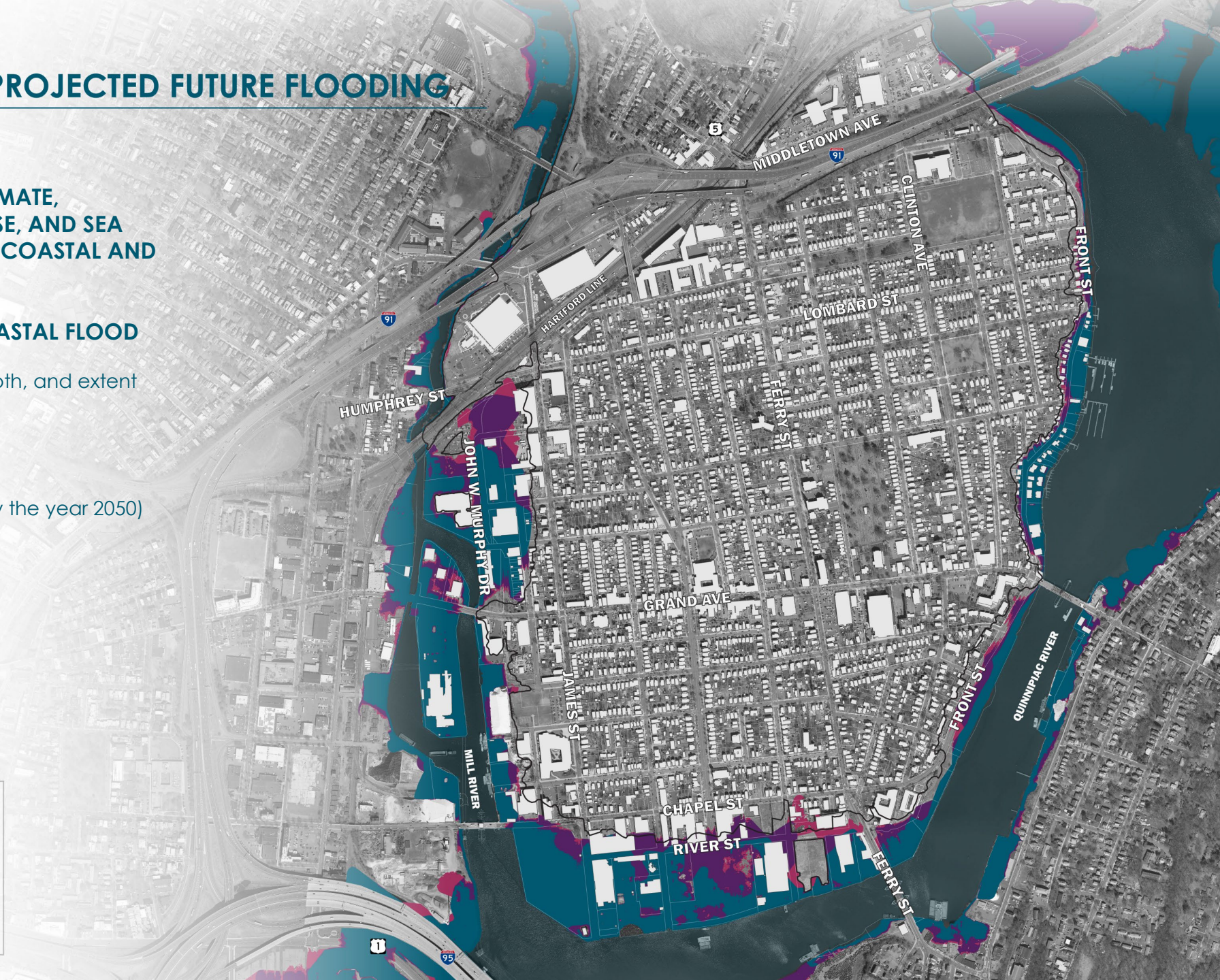
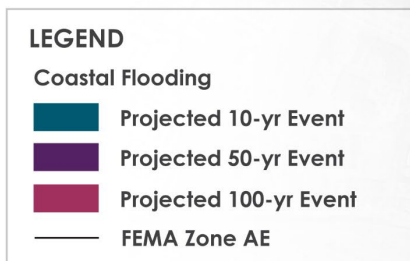
December 23, Quinnipiac River Park

RESILIENT FAIR HAVEN PROJECTED FUTURE FLOODING

WITH A WARMER AND WETTER CLIMATE, RAINFALL INTENSITY WILL INCREASE, AND SEA LEVELS WILL RISE, EXACERBATING COASTAL AND INLAND FLOODING.

WHAT IS ACCOUNTED FOR IN COASTAL FLOOD RISK MODELING?

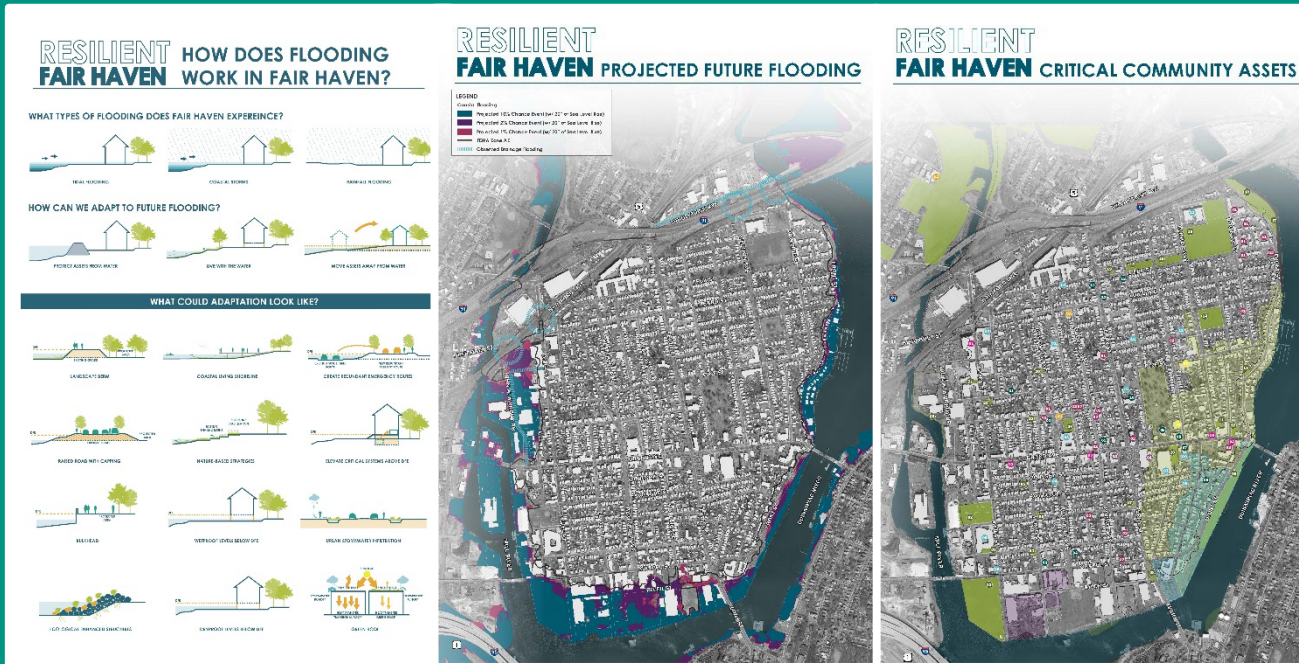
- Maximum floodwater elevation, depth, and extent considering:
 - Topography
 - Storm surge
 - Waves
 - Tidal action
- Projected sea level rise (20 inches by the year 2050)



STAKEHOLDER + COMMUNITY OUTREACH

RESILIENT FAIR HAVEN

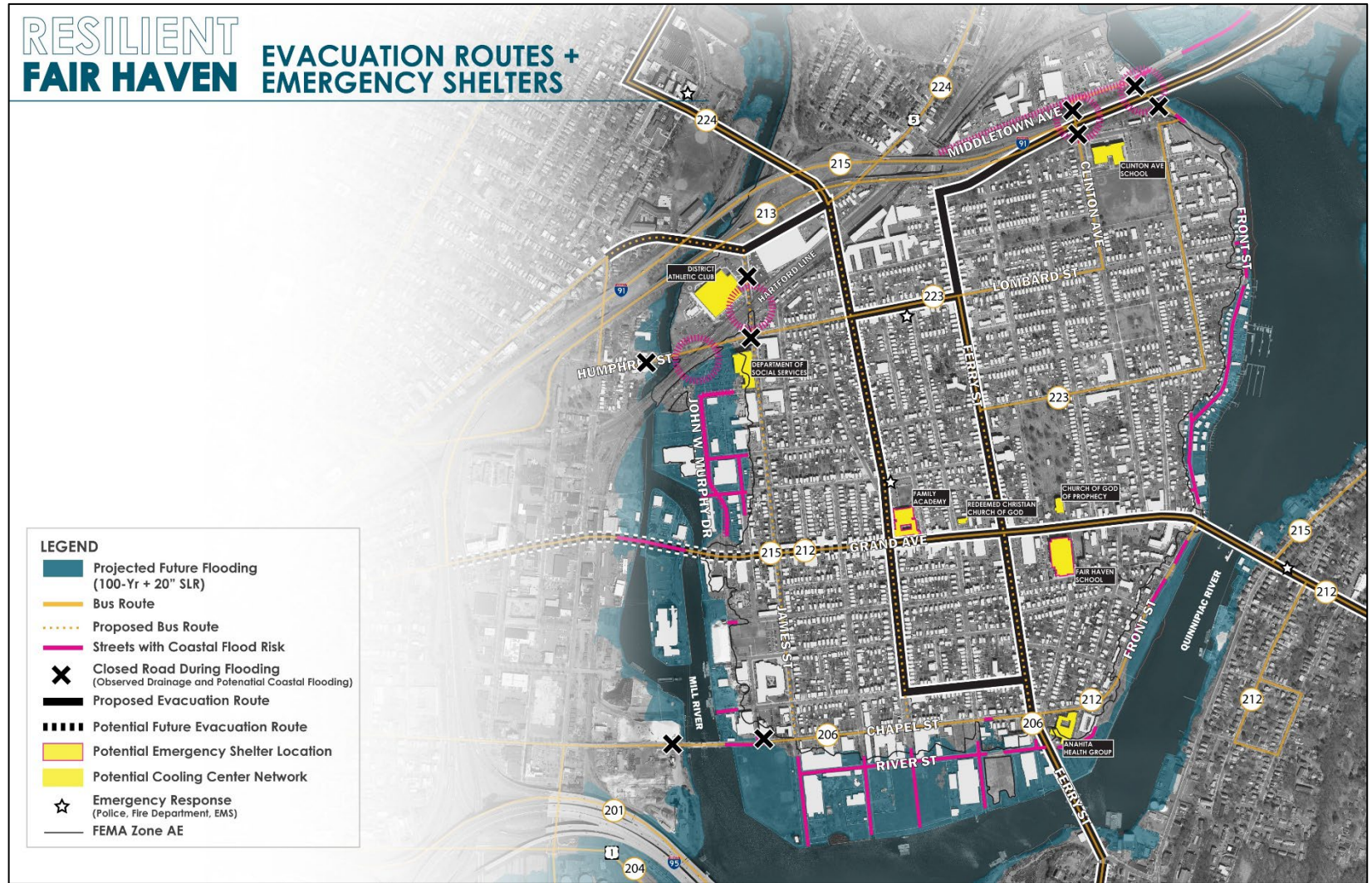
- Recent Efforts (CMT, Fair Haven Day, Survey, RiverFest, Flyer Distribution, Meetings with Economic Development, Emergency Management)
- Next Steps (Upcoming meeting with GNHWPCA, Family Fun Day – FAME School and/or Junta Back to School event – Both in AUG)



RESILIENT FAIR HAVEN

Flood Risk Reduction

- One key outcome of the study was an active statement about which roads out of Fair Haven should be the primary evacuation routes, given the number of bridges and underpasses present
- Potential shelters and cooling centers were mapped out in relation to these resilient corridors



GOALS

- Reduce flood risk along Mill River and address extreme heat risk
- Reduce impervious surfaces and soften shoreline
- Enhance access to Mill River
- Create cooling/resilience corridors
- Provide shading of school parking lot and outdoor classroom space as pilot project



RESILIENT FAIR HAVEN

RECOMMENDED ACTIONS



- 1 **370 James Street Parking Lot & Urban Cooling Center** - Shade trees, parking garage, walking path, natural restoration area, plantings
Estimated Cost: \$17,500,000
- 2 **Mill River Trail** - Overlooks, shade trees, walking paths
Estimated Cost: \$2,000,000
- 3 **Outfall Improvements** - Check valve/backflow retrofit, daylighting and new headwall
Estimated Cost: \$1,000,000
- 4 **Floodable Park and Gateway Property** - Acquisition and demolition of building at 451 Grand Avenue (and re-location of existing business), shade trees, floodable park development
Estimated Cost: \$4,600,000
- 5 **John W. Murphy Drive Elevation and Flood Barrier** - Road raising and flood berm/sheet pile, interior drainage/pump station, utility relocation, shade trees, paving, fencing/guide rail, side street connections
Estimated Cost: \$25,000,000
- 6 **Grand Avenue Road and Bridge Elevation** - Road raising, utility relocation, paving, retaining walls, bridge elevation/replacement
Estimated Cost: \$19,900,000
- 7 **Cooling/Resilience Corridors** - Tree plantings, green stormwater infrastructure
Estimated Cost: \$6,000,000
- 8 **Family Academy of Multilingual Exploration (FAME) School Parking Lot Cooling Improvements** - Shade structure and green roof, shade trees, plantings in existing play yard
Estimated Cost: \$2,600,000

Resilience Roadmap

What is the Resilience Roadmap?

Over the course of developing the Resilient Connecticut project, including the pilot project in the 1.0 area and the expansion through the 2.0 area, CIRCA and its partners documented lessons learned and recommendations for the future. These recommendations can provide a pathway forward for the state as we continue to experience the impacts of climate change. For a full discussion of lessons learned and detailed recommendations for the following overarching themes, please see the [Resilience Roadmap Report](#).pdf

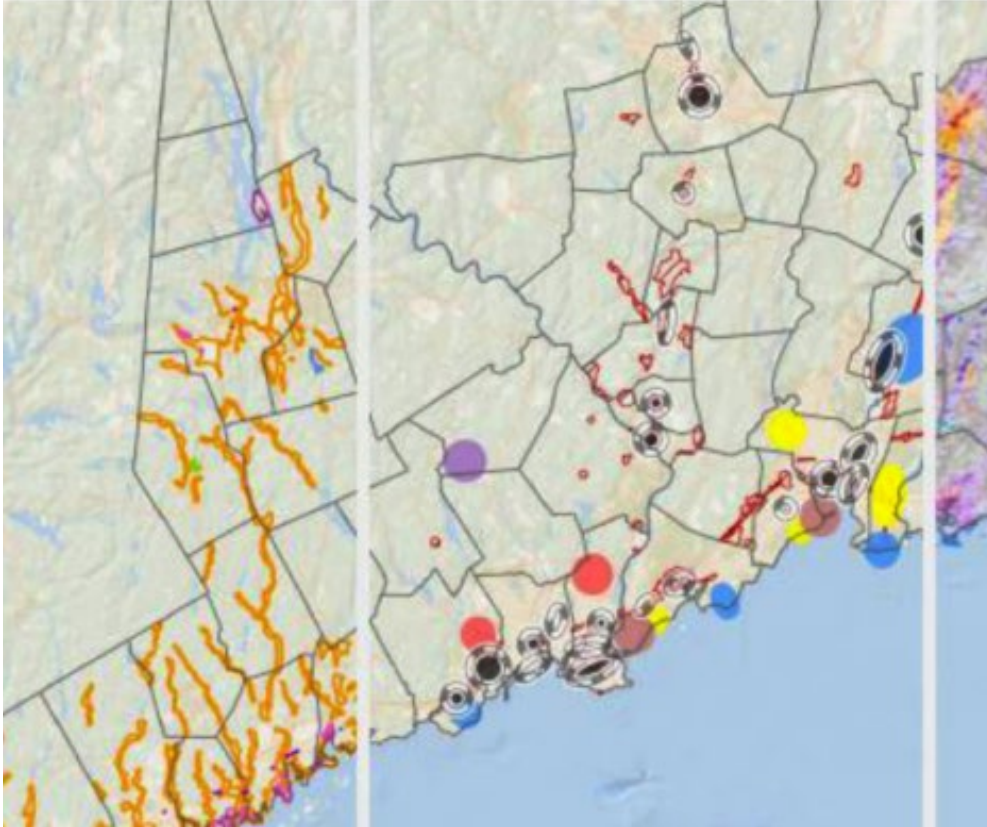
<https://resilientconnecticut.media.uconn.edu/wp-content/uploads/sites/3830/2024/09/Resilience-Road-Map-Recommendations-for-Connecticut-9524-V2.pdf>

Resilience Road Map Recommendations for Connecticut

July 2024



1. Take action on existing vulnerabilities, zones of shared risk, and resilience opportunities.



The Resilient Connecticut planning process resulted in the identification of 177 Resilience Opportunity Areas (ROARs) across the 1.0 and 2.0 regions. These represent unmet needs for local and regional planning, project development and implementation support. The database of ROARs can be found on the [Resilient Connecticut website](#).

2. Improve agency coordination and take advantage of existing programs and capacity.



Climate adaptation and resilience planning in Connecticut has evolved over the past decade. Today there are many different programs and partners that have built a solid foundation of knowledge, plans, data, and tools to support communities in planning for and adapting to climate change impacts. Going forward, existing programs and partners will need to better coordinate and work together to leverage this foundation for the benefit of communities across the state. This includes leveraging staff capacity and expertise across different state agencies to incentivize more collaboration

3. Utilize equitable and inclusive planning approaches.



The entire community must be engaged in the assessment of adaptation needs, priorities, and projects. Broad participation is essential to ensure public support and to identify the needs of the most vulnerable. Communities that have been traditionally marginalized or disengaged from planning must be included from the start in setting priorities and developing solutions to climate resilience challenges. This requires resources to support participation and develop local capacity in EJ communities. The state should continue to build on the GC3's efforts to remove barriers and move towards more equitable participation in the resilience planning process.

4. Prioritize emergency preparedness and recovery planning.



Prioritize preparedness for disruptive and extreme weather hazards by incorporating climate change into local and regional emergency planning and identify "Community Lifelines" that must function in the aftermath of a disaster. These are essential to human health and safety and sustain the operation of critical community services, government and business functions.

5. Build adaptation into infrastructure investments to avoid future costs.



To minimize future costs and social disruption, municipalities and state agencies should integrate climate change adaptation into all planning decisions and investments immediately. Every town's Plan of Conservation and Development and Hazard Mitigation Plan, for example, should enhance long-term resilience by including an assessment of climate change impacts into plans. Routine repairs and improvements that recognize future risk will yield a high return on investment.

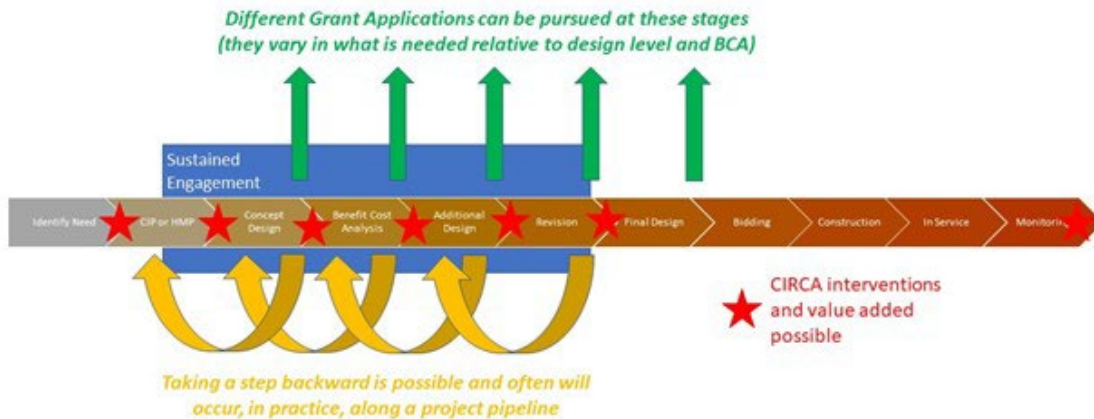
6. Adapt existing and resist new development in coastal and riverine floodplains.



Higher mean sea levels will increase the frequency of flooding in areas that are currently flood prone. Enforcement and strengthening of existing policies will reduce risk to people, property, and municipal tax bases and make new commercial and residential development less vulnerable. Existing homes and businesses that were previously built in areas of flood risk will need to consider the full range of flood mitigation options including elevation, flood proofing, and voluntary acquisition of repetitive and severe repetitive loss properties, among others. New development should be avoided in areas where coastal flood risks are currently known as these areas will continue to flood more frequently by 2050. If municipalities, developers, and property owners choose to site new buildings and development in areas of known coastal and riverine flood risk going forward, future liabilities and costs should be fully assumed by property owners.

7. Develop a resilience project pipeline.

Project Pipeline Concept



In many towns, there are several areas at-risk, and all need attention. Having a series of resilience projects underway will increase the likelihood of winning state and federal adaptation grants and increase support for the local share of matching costs. In addition, state agency resilience projects may need coordination with local projects. The creation of a central project pipeline database will allow for project planning and implementation between and across jurisdictions.

8. Establish and invest in new local funding sources.



Municipalities must begin to develop sustainable funding sources for longer term investments in resilience. A resilience project pipeline receiving federal and/or state support will require local cost-sharing, so a strategy for raising local funds is essential. In addition, many local projects may not qualify or receive significant federal funding. New policy tools in Connecticut have recently been created for this purpose. For example, Public Act 19-77 allows a municipality to create a resiliency reserve fund.pdf and PA 21-115, “An Act Concerning Climate Change Adaptation,” also provides municipalities with a suite of voluntary tools to fund climate resilience, including enabling of stormwater authorities.pdf and a new Environmental Infrastructure Fund within the Connecticut Green Bank.

9. Integrate emissions reductions and renewable energy deployment with adaptation and resilience planning.



Ultimately, the path forward to more sustainable communities includes large investments in reducing greenhouse gas emissions while also reducing risks and vulnerabilities to climate change impacts. It remains a critical goal to ensure these investments are coordinated to maximize our impact with limited resources. In many cases greenhouse gas reduction strategies can meet multiple objectives such as reducing heat risk to vulnerable residents, improving grid resilience, and improving the connectivity of multi-modal transportation.

10. Track changes in climate projections and policy options.



Since 2014, CIRCA's research has provided Connecticut specific guidance on local projections of sea-level rise.pdf, precipitation, and temperature due to climate change. This research has been instrumental in helping the state establish planning guidance and policies. As climate science evolves, updated guidance based on the latest findings will be needed to continue informing Connecticut's approach to adaptation and resilience. In addition, efforts to make climate science broadly accessible and understandable to the public will help to enable and inform action.

Thank You!

[Resilientconnecticut.uconn.edu](https://resilientconnecticut.uconn.edu)

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UConn



Financing Resilience Improvements

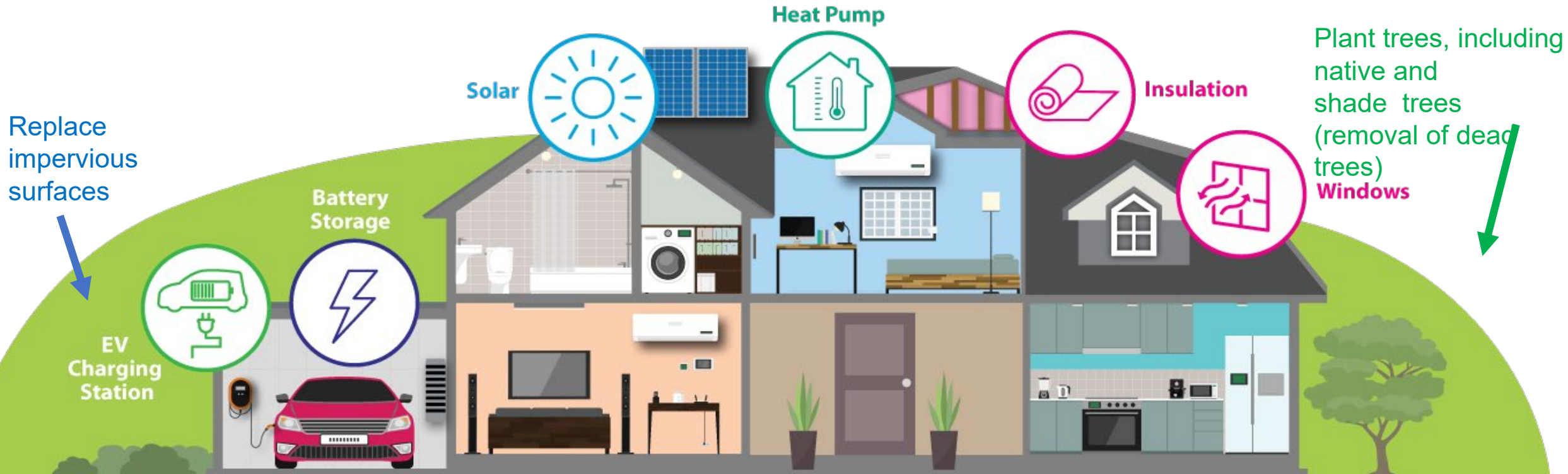


Leigh Whelpton, Director of Environmental Infrastructure Programs



smart-e loan

- 70+ home energy improvements with new resiliency measures coming
- 7,500+ projects closed with 8 lending partners
- \$15,937 avg. Loan for total of \$143 million
- Contractor network of 300+
- Maximum loan amount increased to \$50,000
- Flexible terms now up to 20 years
- No pre-payment penalty, down payment



green bank capital solutions

Access financing for your unique project or business

The Green Bank is committed to investing in clean energy through our extensive financing products, but some projects don't quite fit the mold. If you have a project plan that needs an investment boost, the Green Bank may be able to help.



Resiliency Improvement Districts



Thank you for attending!



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