



Proactive vs. Reactive Resilience in Connecticut: Creating Value & the Results of Inaction

NICE TO MEET YOU!



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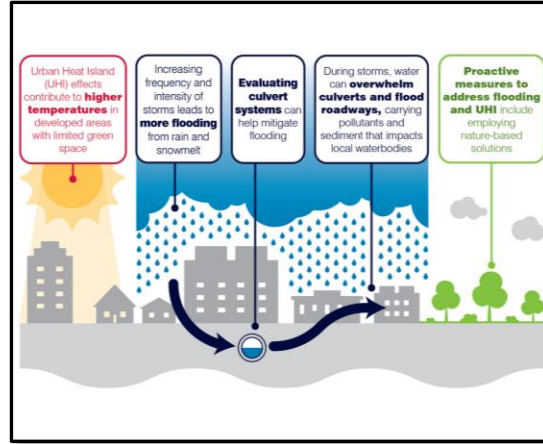


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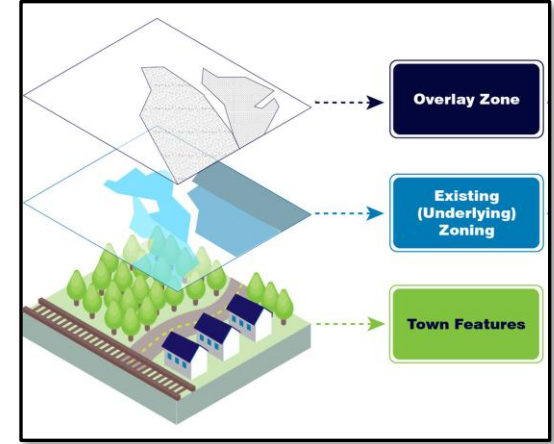
AGENDA



Why Resiliency Makes Economic Sense



Tools to Identify Vulnerabilities & Build Resilience



Proactive vs. Reactive Plan Comprehensively

THE “WHY” - REACTING TO DISASTER



August 18, 2024

Main St. North & South

Source: Town of Southbury



Extreme Weather

Snowstorm in Connecticut



Tropical Storms

Narragansett Hazard
Mitigation Plan

Source: Town of
Narragansett



Sea-Level Rise

Coastal Zone
Management Plan
Lynn, Massachusetts



Why Resiliency Makes Economic Sense



Southbury, CT, August 18, 2024

RESILIENCY: WHAT IS IT?



INLAND FLOODING



HURRICANES / TROPICAL STORMS



EXTREME TEMPERATURES



SEVERE WINTER WEATHER / NOR'EASTERS



COASTAL FLOODING



TSUNAMI



DROUGHT



WILDFIRE



EARTHQUAKES



TORNADOES

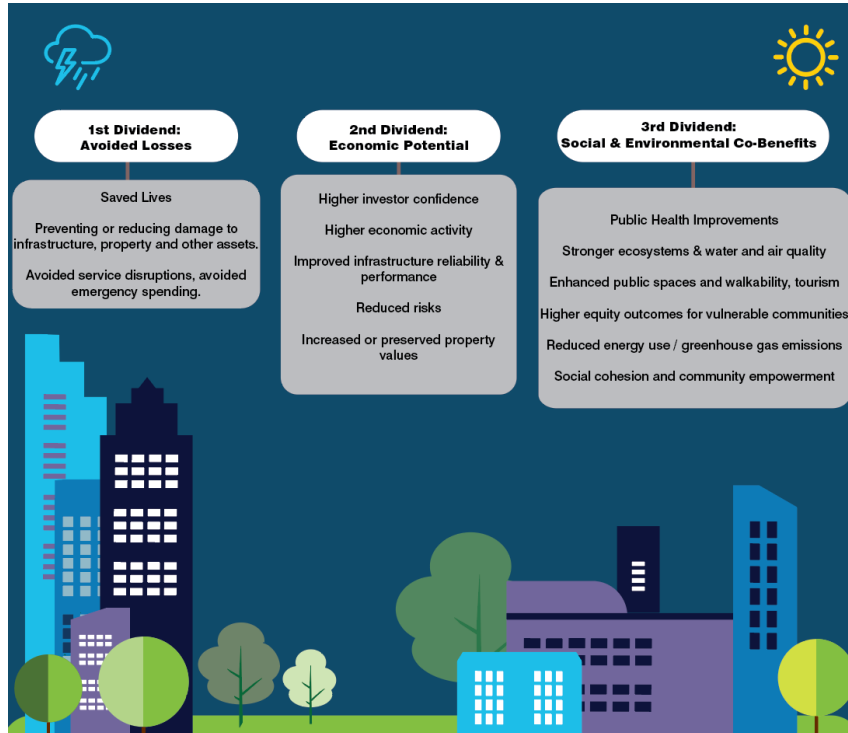


LANDSLIDES



INVASIVE SPECIES

WHAT IS A RESILIENCY DIVIDEND?



A **Resiliency Dividend** is the measurable value created by resilience investments—from avoided losses to strengthened economies, healthier environments, and better everyday quality of life—even when a disaster never occurs. *National Institute of Standards and Technology (NIST)*

How Agencies Measure It

Tools like the RAND Resilience Dividend Valuation Model (RDVM)

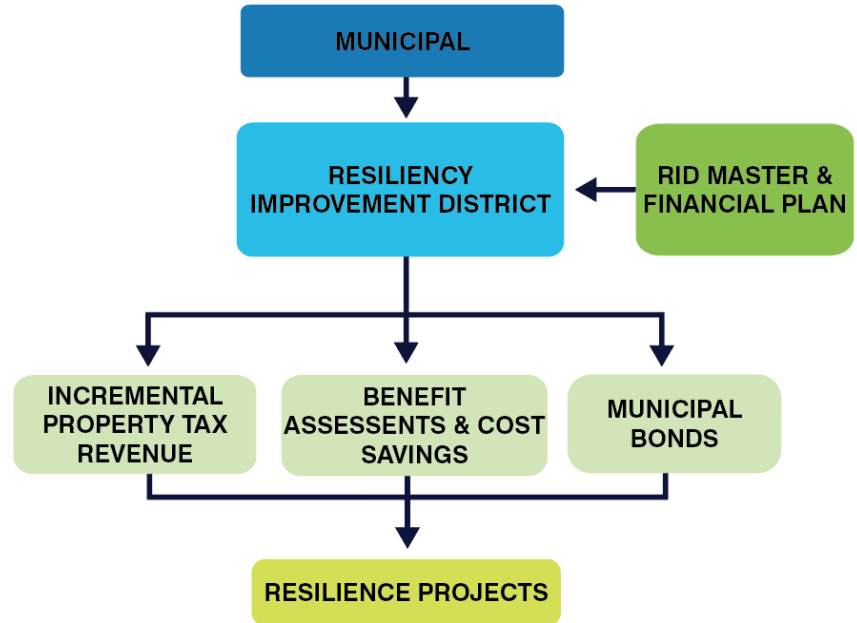
HOW DOES RESILIENCY CREATE VALUE?



Source: National Institute of Building Sciences (NIBS)

RESILIENCY IMPROVEMENT DISTRICTS (RIDs)

Connecticut's Resiliency Improvement Districts (RIDs) are designed to capture Resiliency Dividends by driving targeted, financially self-sustaining investments that reduce climate risk, strengthen infrastructure, elevate property values, and create social and environmental benefits—for decades into the future.



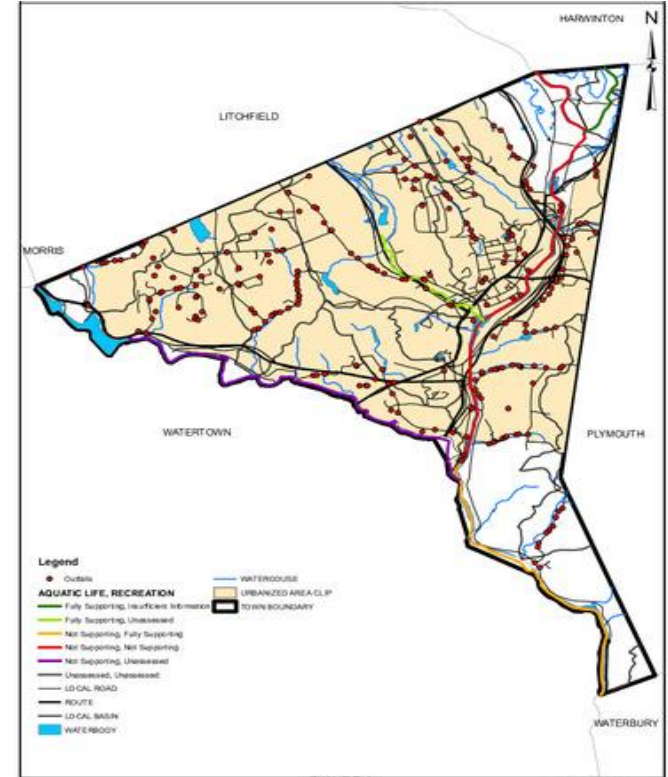
HOW & WHY RIDs WORK

RIDs allow municipalities to **fund resilience projects** using:

- Incremental property tax revenue
- Savings generated within the district
- Benefit assessments on properties that gain from public improvements up to 30 years
- Resilience-backed municipal bonds

RIDs concentrate **funding, planning, and governance** in a defined area, enabling:

- Targeted investments with measurable outcomes
- Long-term financing that captures property value growth
- Public-private partnership (P3s) leverage
- Alignment with municipal POCDs and climate vulnerability assessments

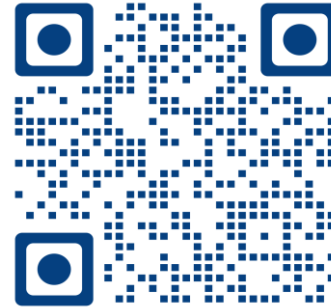


FUNDING & FINANCING RESILIENCY

How to pay for the efforts you're going to implement:

- State and federal grant programs
- Capital improvement planning and bonding
- Leveraging public–private partnerships
- **New Tool in CT: RIDs**

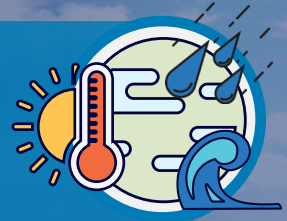
Scan the QR code to download our CT Resiliency Funding Catalog!



Or Click on the link

here: https://data.openasset.com/cedd5797/f94008c253d3c93d81fd39983220789a/C_260120.docx

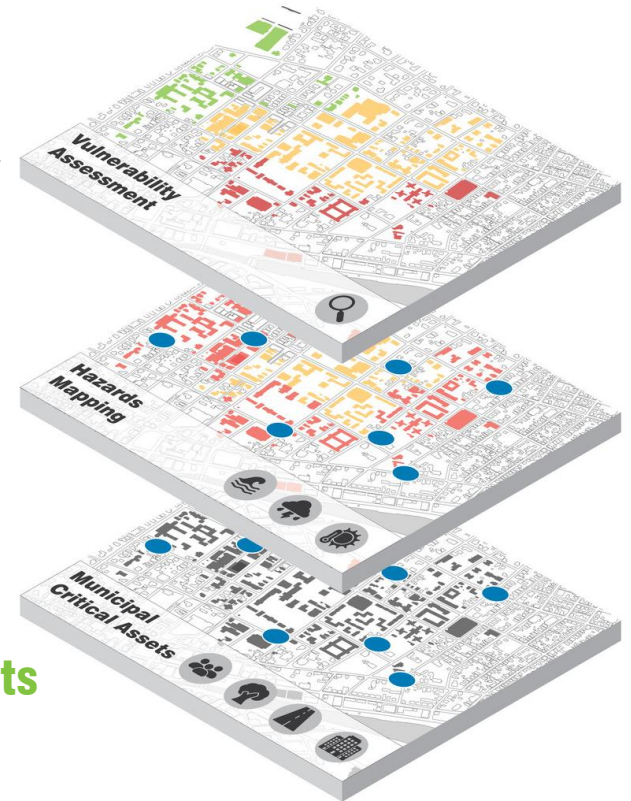
Tools to identify Vulnerabilities & Build Resiliency



WHAT IS A VULNERABILITY ASSESSMENT?

Climate Change Vulnerability Assessment (CCVA): a “**climate stress test**” on present conditions to find out what might happen in physical and social terms.

Goal: the CCVA provides a **baseline** to improve from.



VULNERABILITY

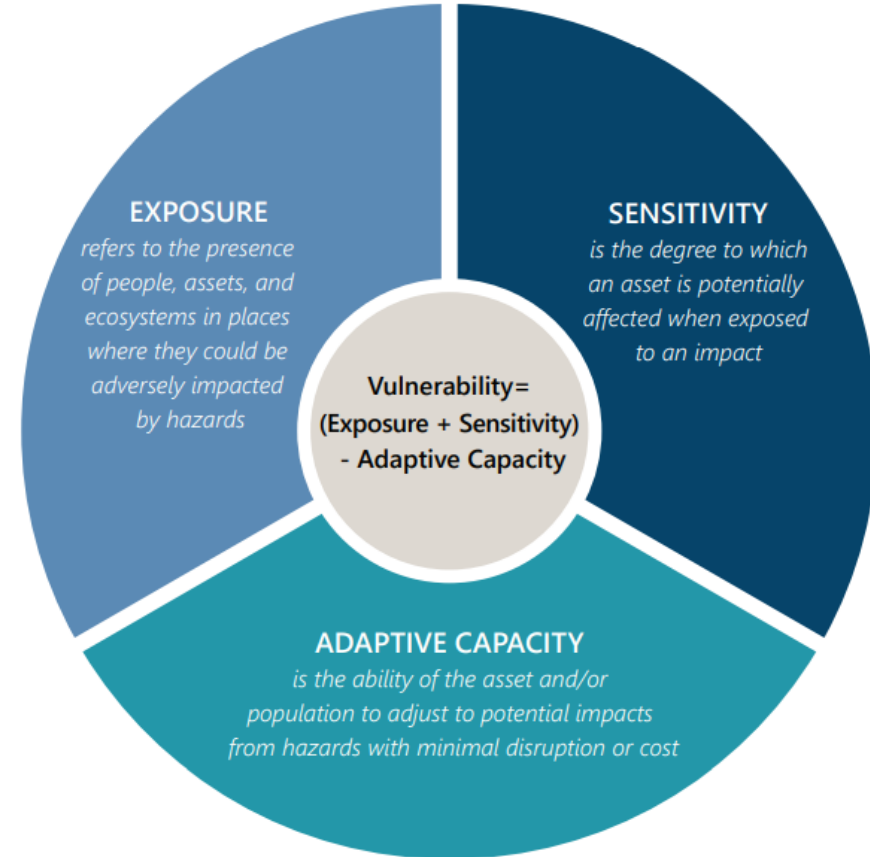
Vulnerability =



whether the asset is directly impacted

how the asset fares when exposed

the system's ability to cope



Understanding **what** is vulnerable (systems, infrastructure, people) and **why** (coastal flooding, extreme heat) to guide **how** to best respond and adapt



Highly Exposed to Coastal Flooding



Highly Sensitive due to Building Age



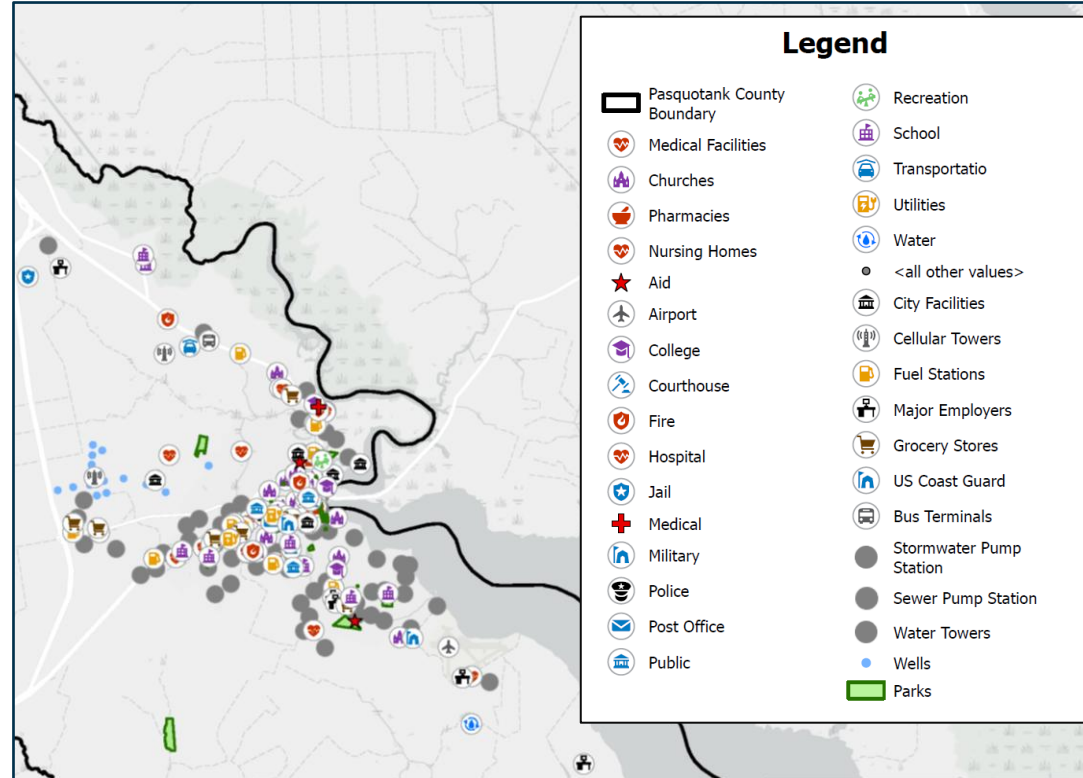
Limited Adaptive Capacity due to few Mitigation Measures

CRITICAL ASSET INVENTORY

Critical Assets: facilities, systems, infrastructure, and resources whose failure would cause significant disruption, harm, or recovery costs.



Elizabeth City: Map of Municipal Critical Assets

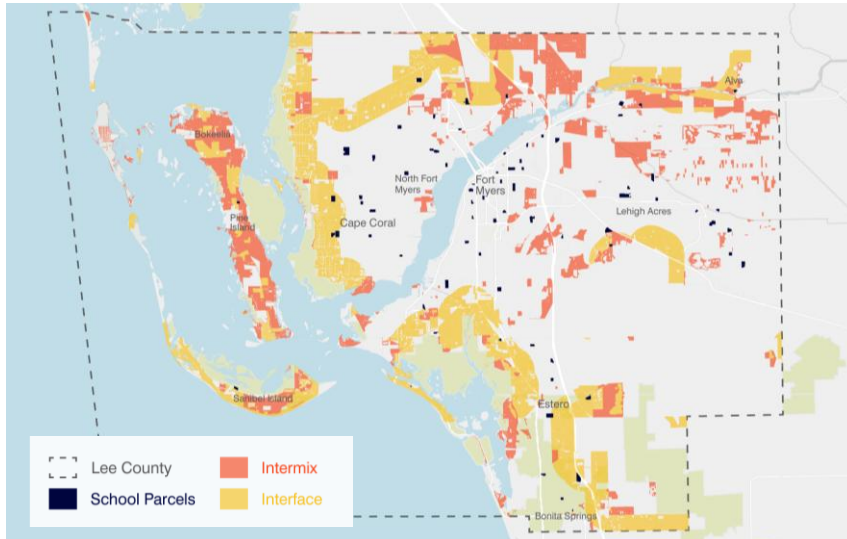


EXPOSURE

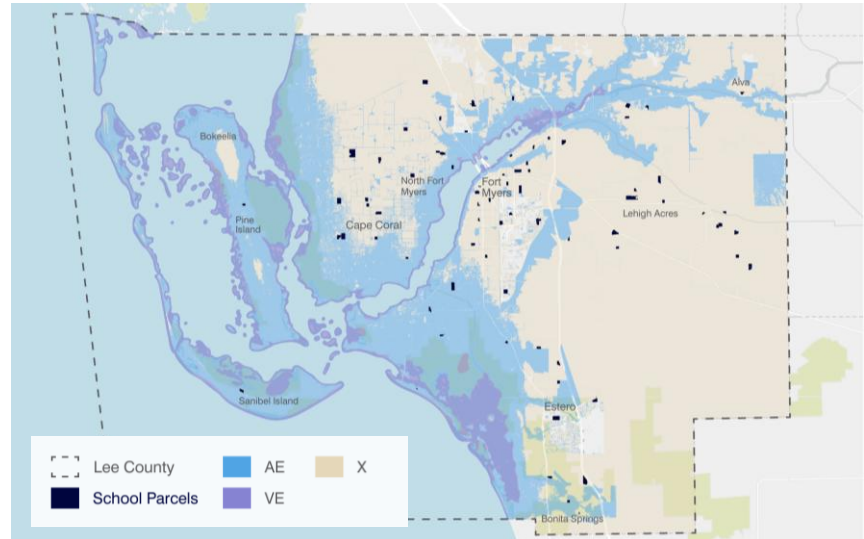
Exposure: degree an asset experiences direct climate change impacts

EXPOSURE SCORES (NORMALIZED)					
COASTAL FLOOD	STORMWATER	WILDFIRE	WIND	HEAT	COMBINED
2	0	0	4	3	9
2	0	0	3	4	9
3	0	4	3	3	13
3	0	0	3	4	10
2	0	4	1	3	10

Lee County School District: **Wildfire Exposure**



Lee County School District: **Coastal Flooding Exposure**

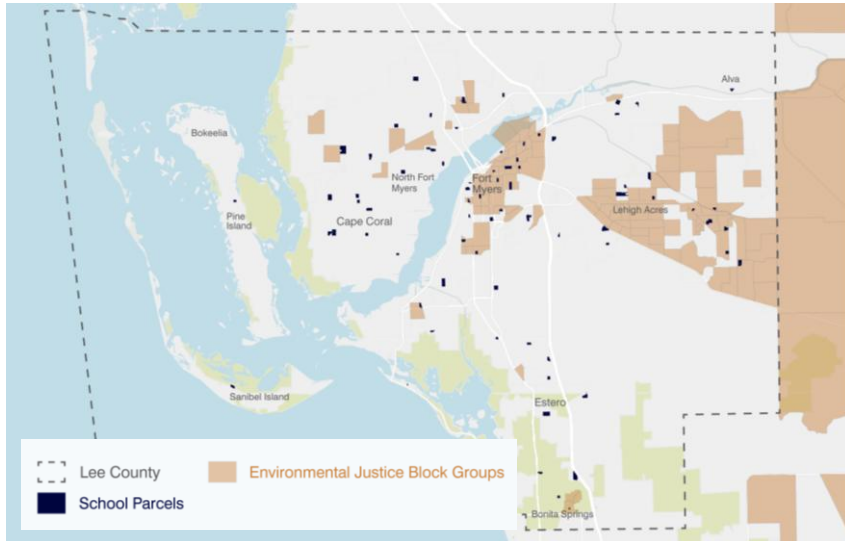


SENSITIVITY

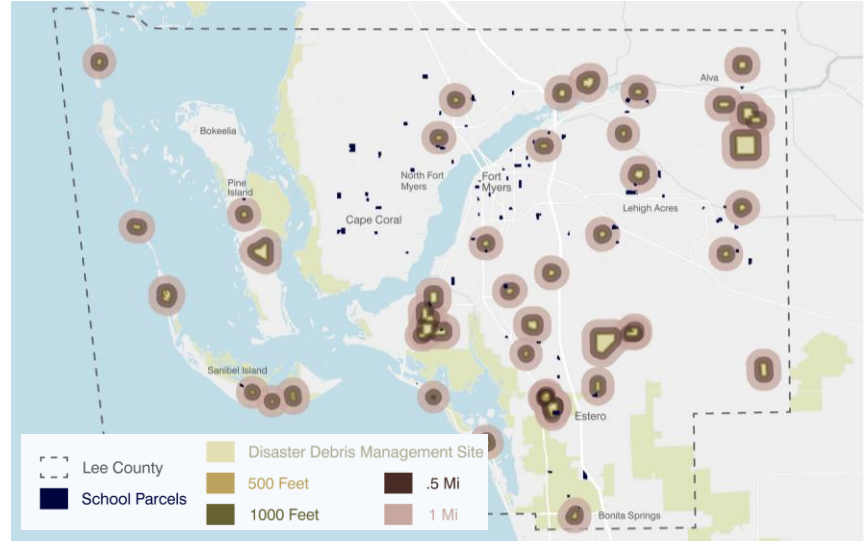
Sensitivity: the potential impact of exposure the asset is susceptible to

SENSITIVITY SCORES (NORMALIZED)					
EJ PROXIMITY	FUTURE COASTAL FLOODING	HAZARDOUS INFRASTRUCTURE	HISTORIC BUILDING	BLDG. AGE	COMBINED
4	0	2	4	4	14
4	0	2	4	4	14
0	4	0	0	4	8
1	4	0	0	4	9
1	0	0	4	4	9

Lee County School District: **EJ Communities**



Lee County School District: **Proximity to Hazardous Sites**



ADAPTIVE CAPACITY

Adaptive Capacity: the system's ability to cope with climate impacts



Does the building have flood proofing?



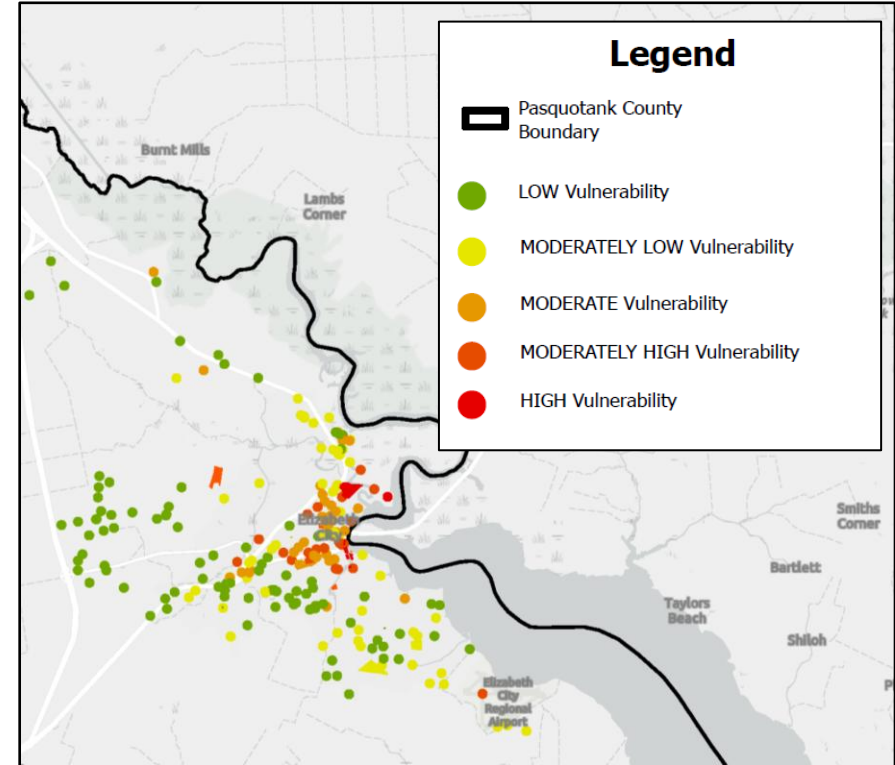
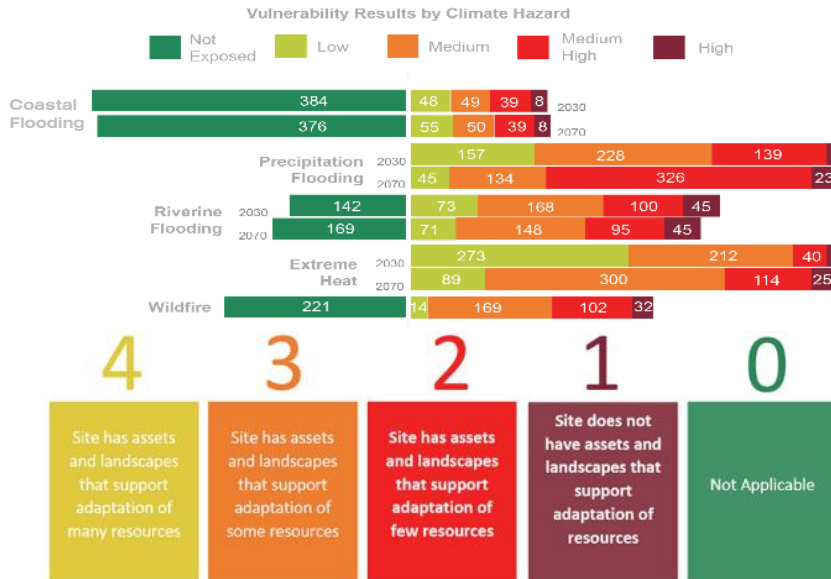
Is it elevated above future flood levels?

ADAPTIVE CAPACITY SCORES (NORMALIZED)				
BUILDING ACCESSIBILITY	HAZARD HISTORY & IMPACTS	MITIGATION MEASURES	EMERGENCY SHELTER	COMBINED
0	3	3	0	3.36
0	3	2	4	3.20
0	3	2	4	3.20
0	2	2	4	3.19
0	2	2	4	2.99



VULNERABILITY SCORE

Vulnerability Score: a combined score reflecting exposure, sensitivity, and adaptive capacity used to **prioritize action** by ranking assets based on their relative vulnerability.



COMMUNITY-SCALE ADAPTATION STRATEGIES

Sea-Level Rise

- Flood walls
- Living shorelines
- Elevate structures



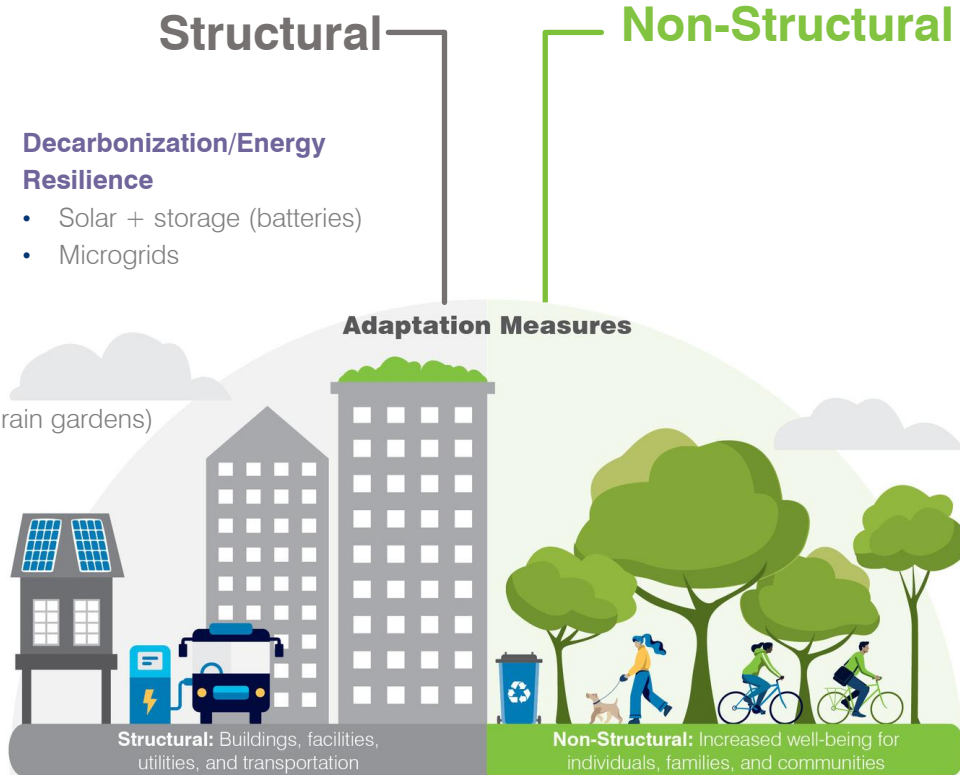
Inland Flooding

- Detention basins
- River dredging
- Culvert upsizing
- Green Infrastructure (bioswales, rain gardens)



Extreme Heat

- Add tree canopy
- Shade structures
- Light colored pavement
- Cooling hubs



Decarbonization/Energy Resilience

- Solar + storage (batteries)
- Microgrids

Land-Use & Zoning

- Zoning/land-use restrictions
- Managed retreat

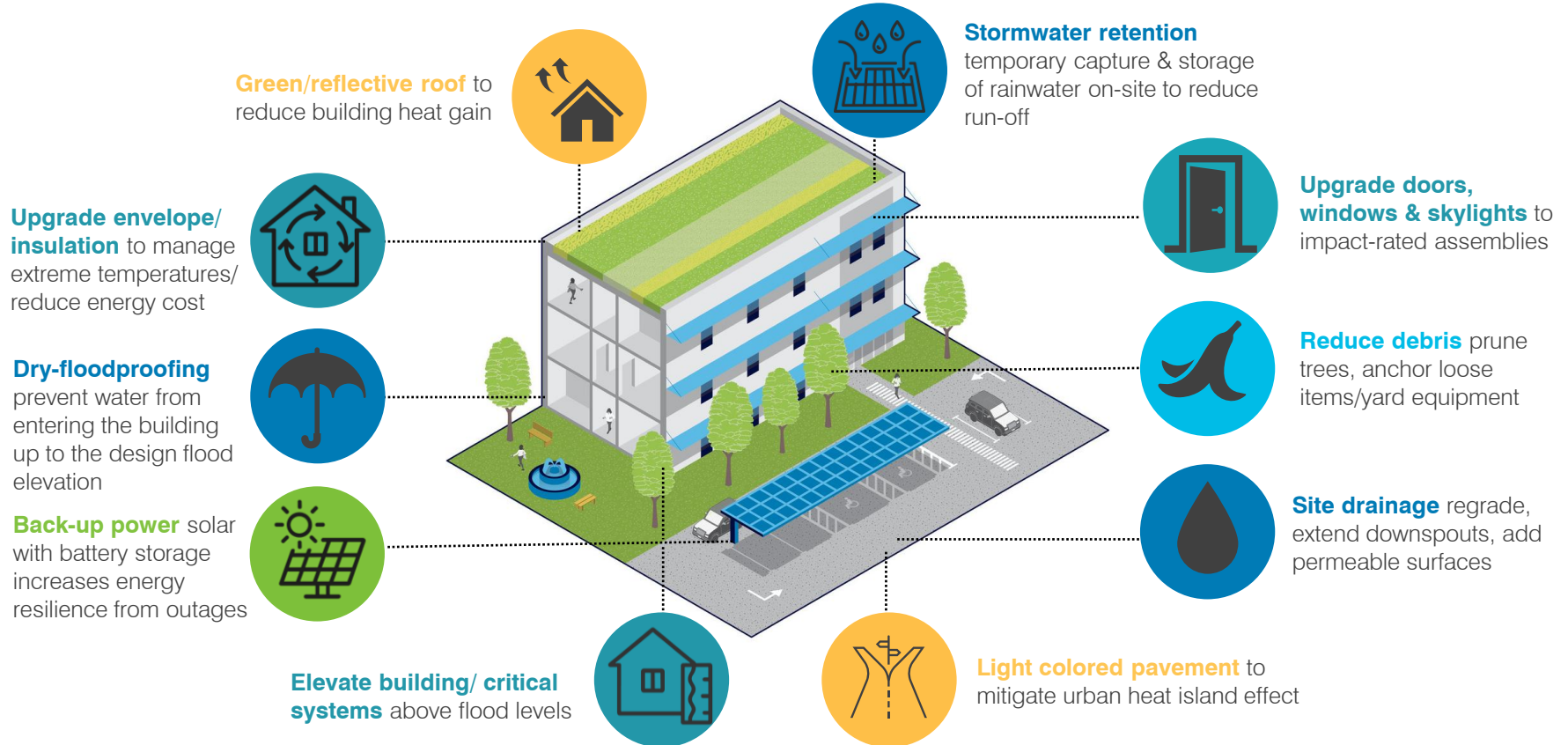
Policy & Planning

- Integrate climate risk into plans & decision-making
- Climate-informed planning
- Resilience funding & incentives

Social Resilience

- Increase social connectedness
- Neighborhood resilience hubs

SITE-SCALE ADAPTATION STRATEGIES



CONNECTICUT TOOLS & DATA SOURCES



[UConn CIRCA Viewers & Tools](#)



[CT ECO Maps & Viewers](#)



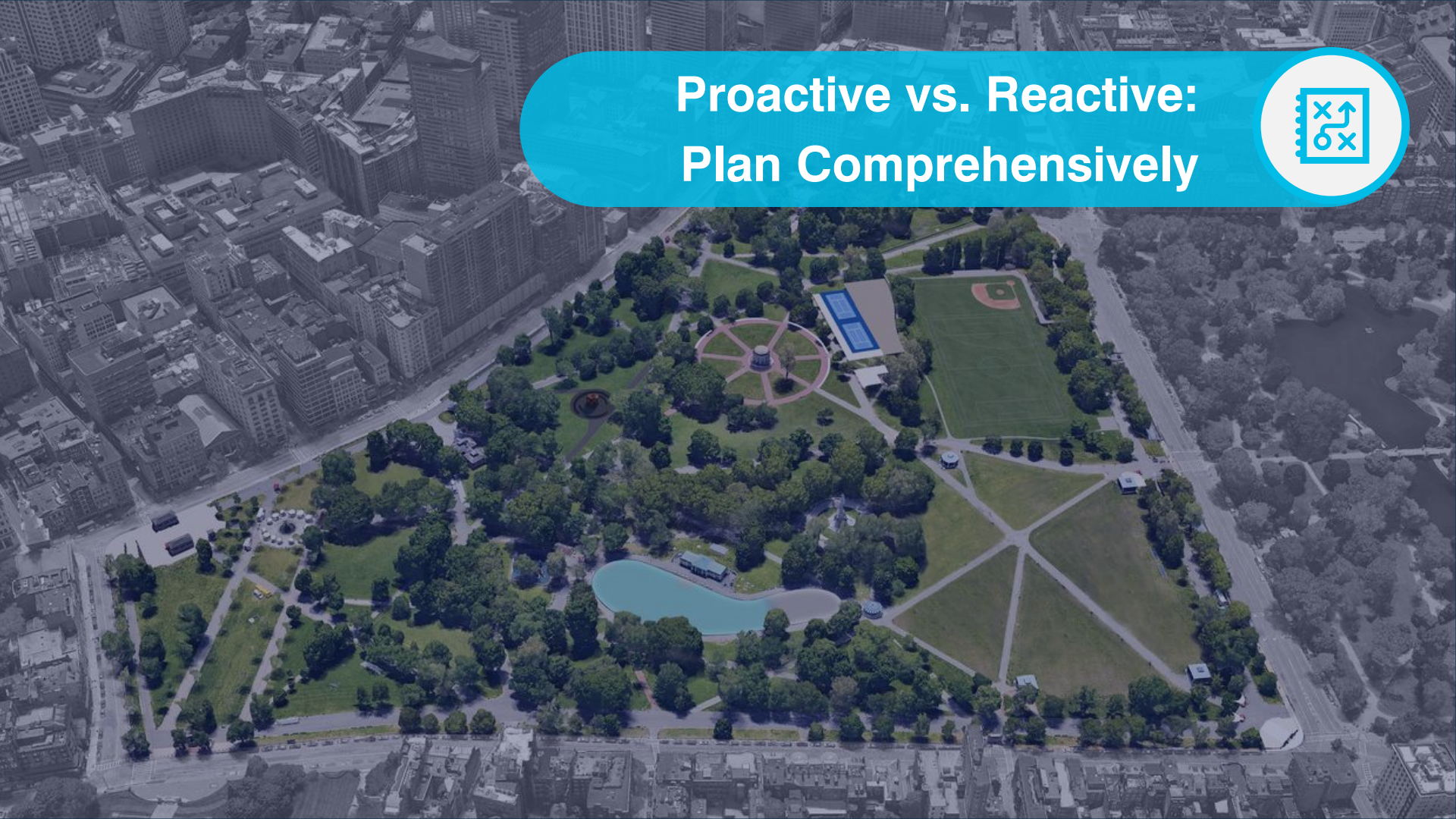
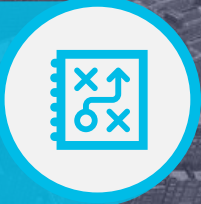
Connecticut
Department of Energy &
Environmental Protection

[Connecticut EJ Screen Tool](#)



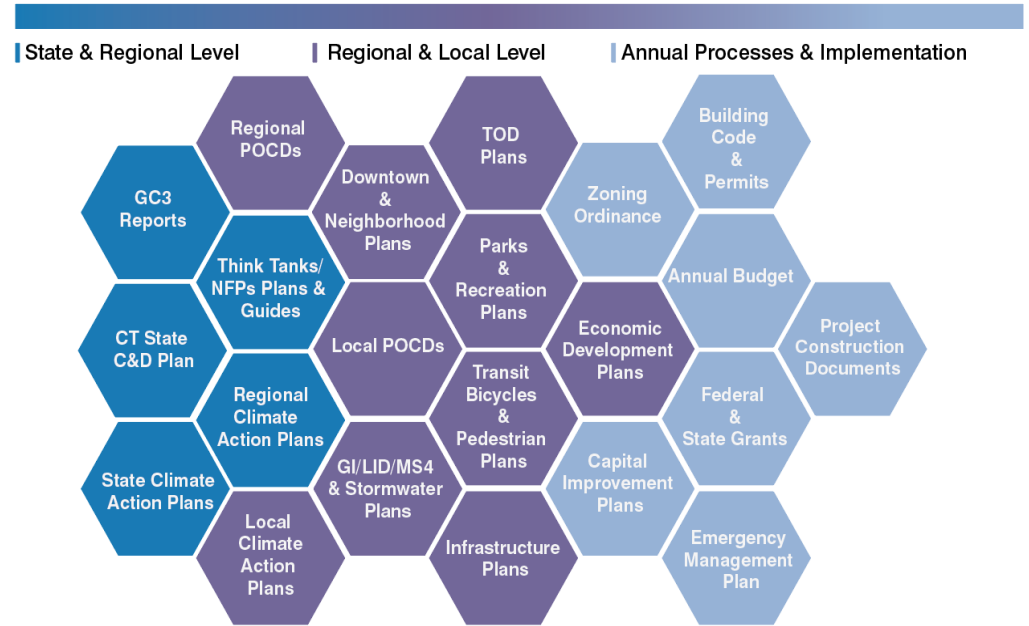
[Climate Risk Mapping Tool](#)

Proactive vs. Reactive: Plan Comprehensively



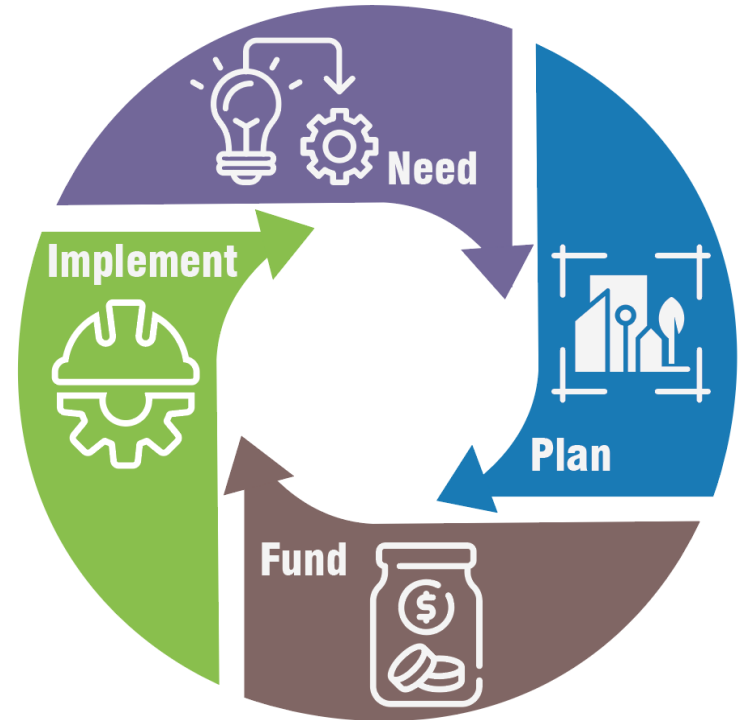
PLAN COMPREHENSIVELY

- Many Plans | Many Processes
- Resilience can be embedded throughout
- **Linkages are crucial**
- Goals should be: SMART



PLAN COMPREHENSIVELY: BENEFITS

1. Identify the **Need** (through a vulnerability assessment!)
2. Develop a **Plan** to respond to the need
3. Seek **Funding** for the plan
4. **Implement** the improvements
5. Start Over - Next Need!



INVOLVING YOUR LOCAL COMMUNITY

- **Be Active and Aware** of the plans and processes in your community.
- **Engage** with the local community to collaborate.
- **Share information & ideas** across the community so that all resiliency needs & ideas are being identified & understood.






Cohasset, MA

CONNECTICUT TRENDS FOR 2026

- What to be looking out for in the coming year(s).
 - SSPA 25-1/HB 8002
 - Housing Production Plans 2028-2029
 - Infrastructure funding & grants starting in 2028
 - PA 25-33
 - Beginning October 1, 2026 POCDs must include a CCVA
 - Establish Resiliency Improvement Districts
 - What we expect for the 2026 legislative session: refine HB 8002 – Stay tuned!

PA25-1/HB 8002 Housing Planning Implementation

 Regional Housing Needs Program	 Five-Year Housing Growth Plans	 Housing Growth Funding Program
March '26 OPM: Housing Growth Plan & Annual Report Guidance	<div style="border: 1px solid white; padding: 5px; text-align: center;"> Regional or Municipal </div> <p><i>Several required elements; 20 communities with the lowest adjusted equalized net grand list per capita have different requirements</i></p>	<div style="border: 1px solid white; padding: 5px;"> July '28 OPM establishes program for water, sewer, multi-modal transportation and transit infrastructure grants in support of housing growth </div>
July '26 GIO: Developable Land Inventory Data Tools		
Dec '26 OPM: Statewide and Regional Housing Growth Targets	June '28 CRCOG, NECOG, RiverCOG, NHCOG and SECOG towns/regions due	Eligibility: <ul style="list-style-type: none"> ✓ Compliance with Housing Growth Plans requirements and implementation of housing growth policie ✓ Have: <ul style="list-style-type: none"> - Been determined to be a Qualifying Transit-Oriented Community; - Adopted a development district with CT Municipal Development Authority; OR - Other criteria to be developed by OPM
June '27 COGs: Regional Housing Needs Assessment & Municipal Affordable Housing Goals	June '29 SCROG, MetroCOG, NVCOG and WestCOG towns/regions due	
30 Days from COG Notice of Municipal Affordable Housing Goal – Municipalities: Choose regional or municipal Housing Growth Plan path	Annual Reporting as defined by OPM Guidance	

PROACTIVE RESILIENCE PROJECTS



Raise Structures

Pump Station
East Haven, CT

Deployable Flood Barriers

Mary Welch Greenway
Boston, MA



Prevent Erosion

Resilient Border Street
Boston, MA

Green Infrastructure

Strawberry Brook Resiliency
Lynn, MA



Upsize a Culvert

Quackenderry Creek
Rensselaer, NY

Living Shorelines

Folly River Park Living Shoreline
Folly Beach, SC



Thank You! QUESTIONS?

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Scan the QR code to
download our CT Resiliency
Funding Catalog!

