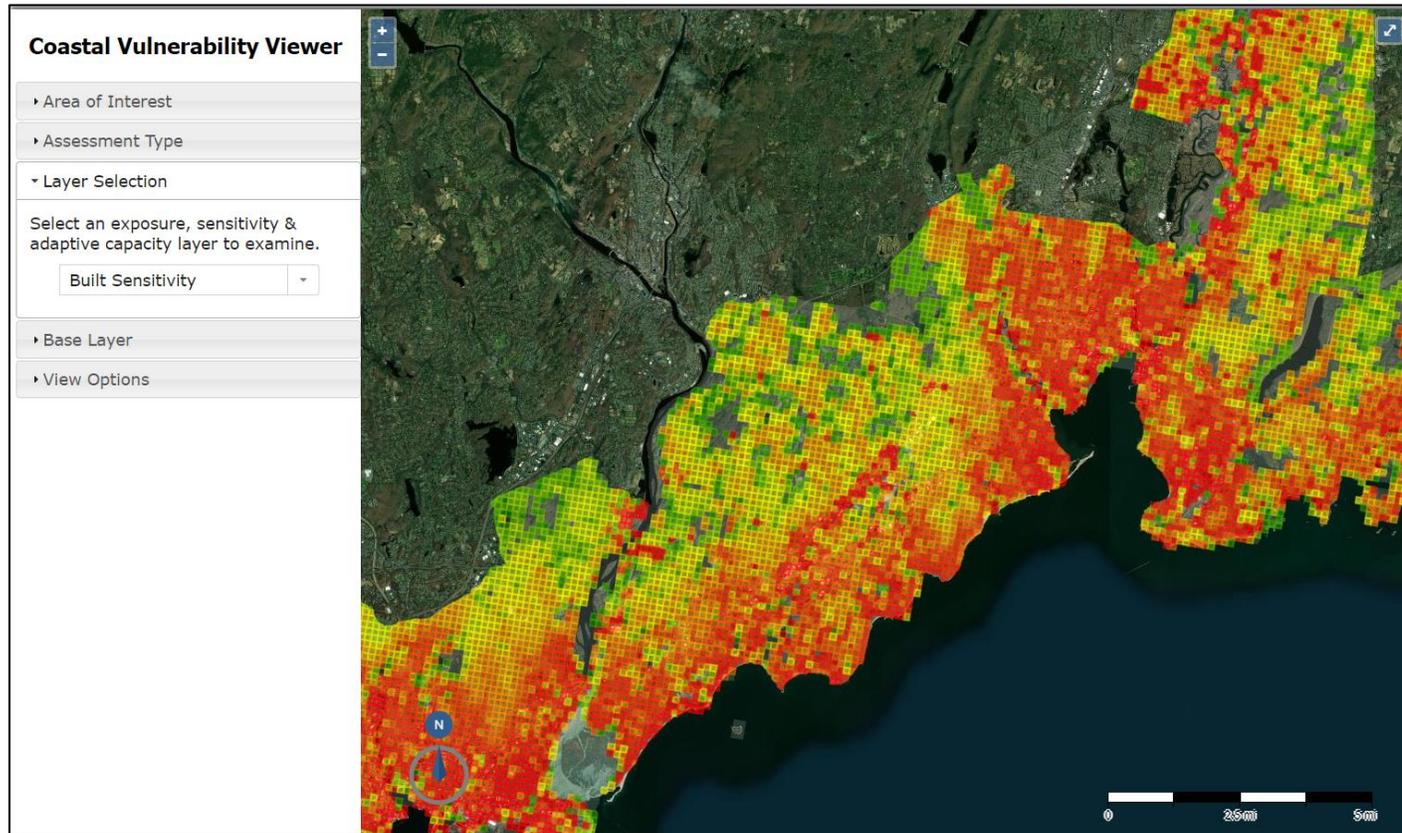


Climate Change Vulnerability Index (CCVI)

What It Is And How To Use It

CVI → CCVI



Similarities

- Built, social, ecological, climate, physical
- Gridded 10-acre cells
- Equation

$$S + E - AC$$

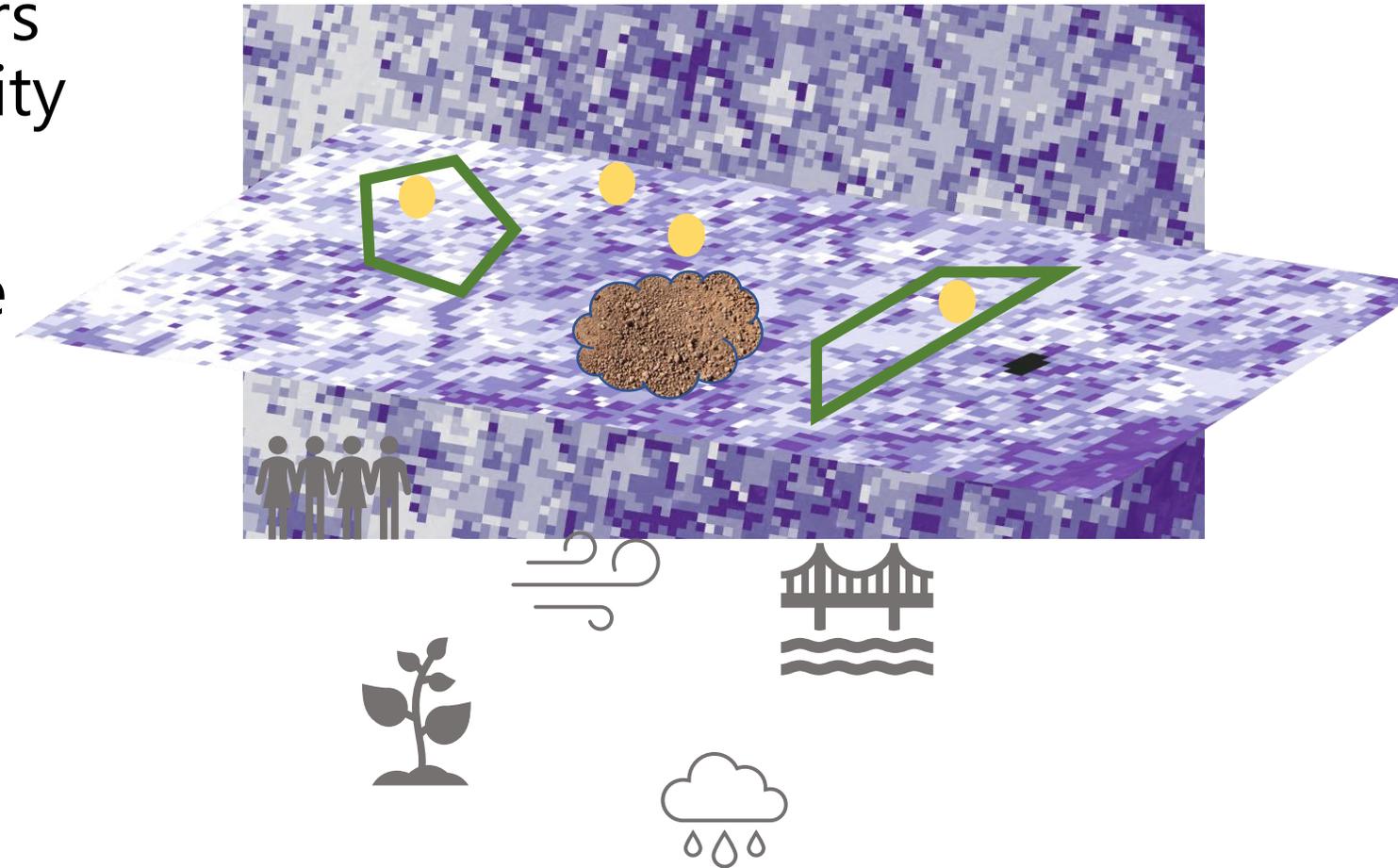
- Some of the same data

Expanded

- Inland to include riverine
- Including heat and wind
- Incorporated more data layers

What is the CCVI?

1. Composite of several factors to quantify climate vulnerability
2. A planning tool that can be used to identify vulnerability drivers



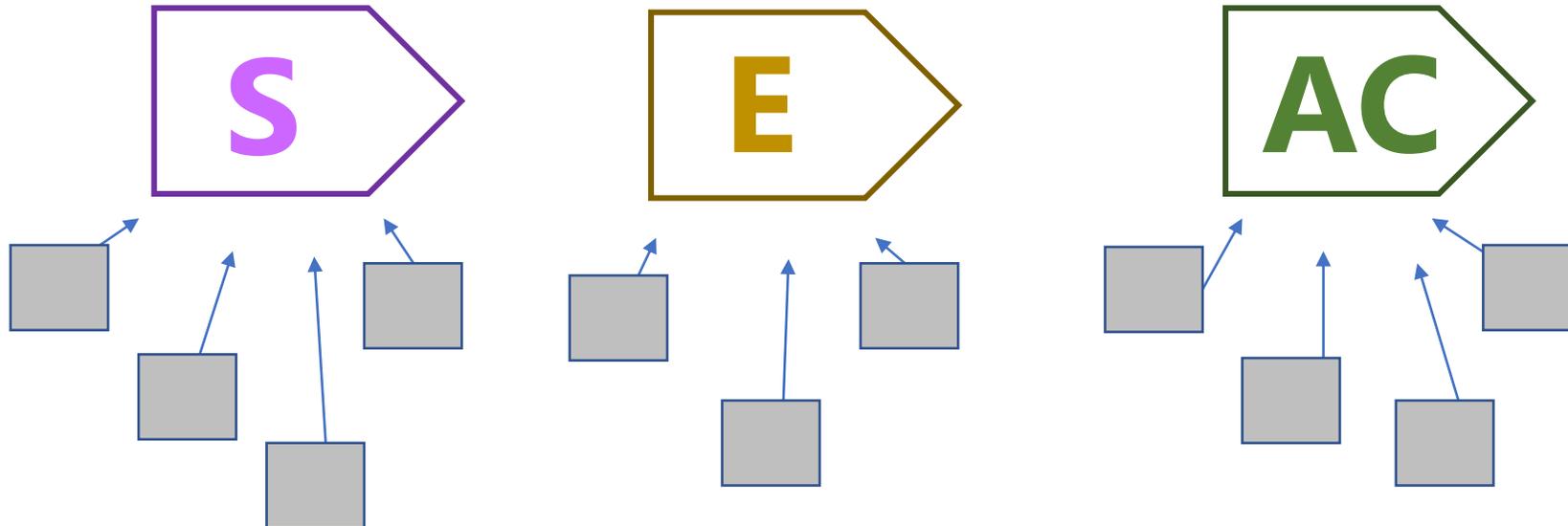
What makes up the CCVI?



Vulnerability

=

Sensitivity + Exposure – Adaptive Capacity



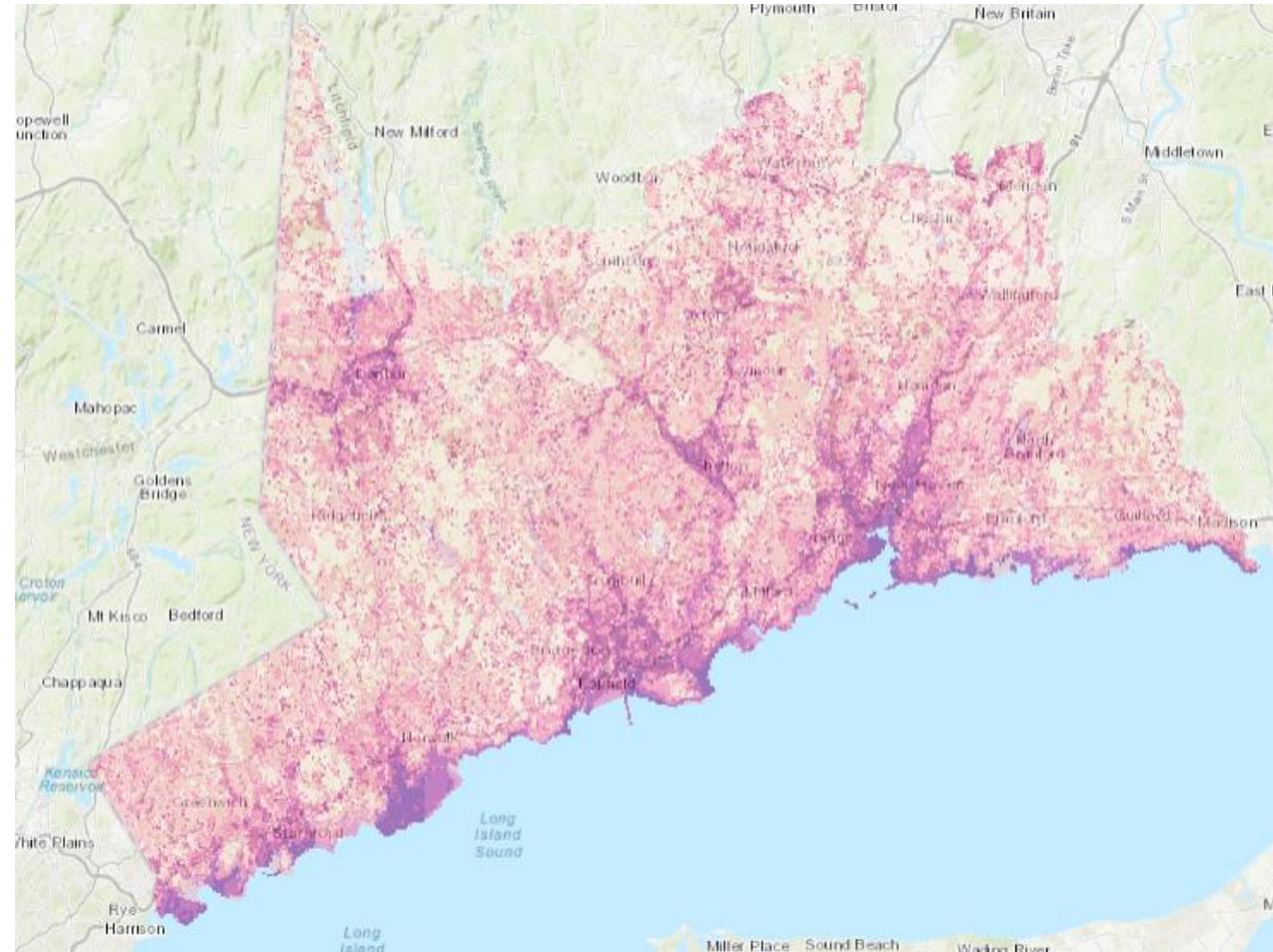
Sensitivity

Degree to which a built, natural, or human system will be impacted by changes in climate conditions.

Built

Social

Ecological



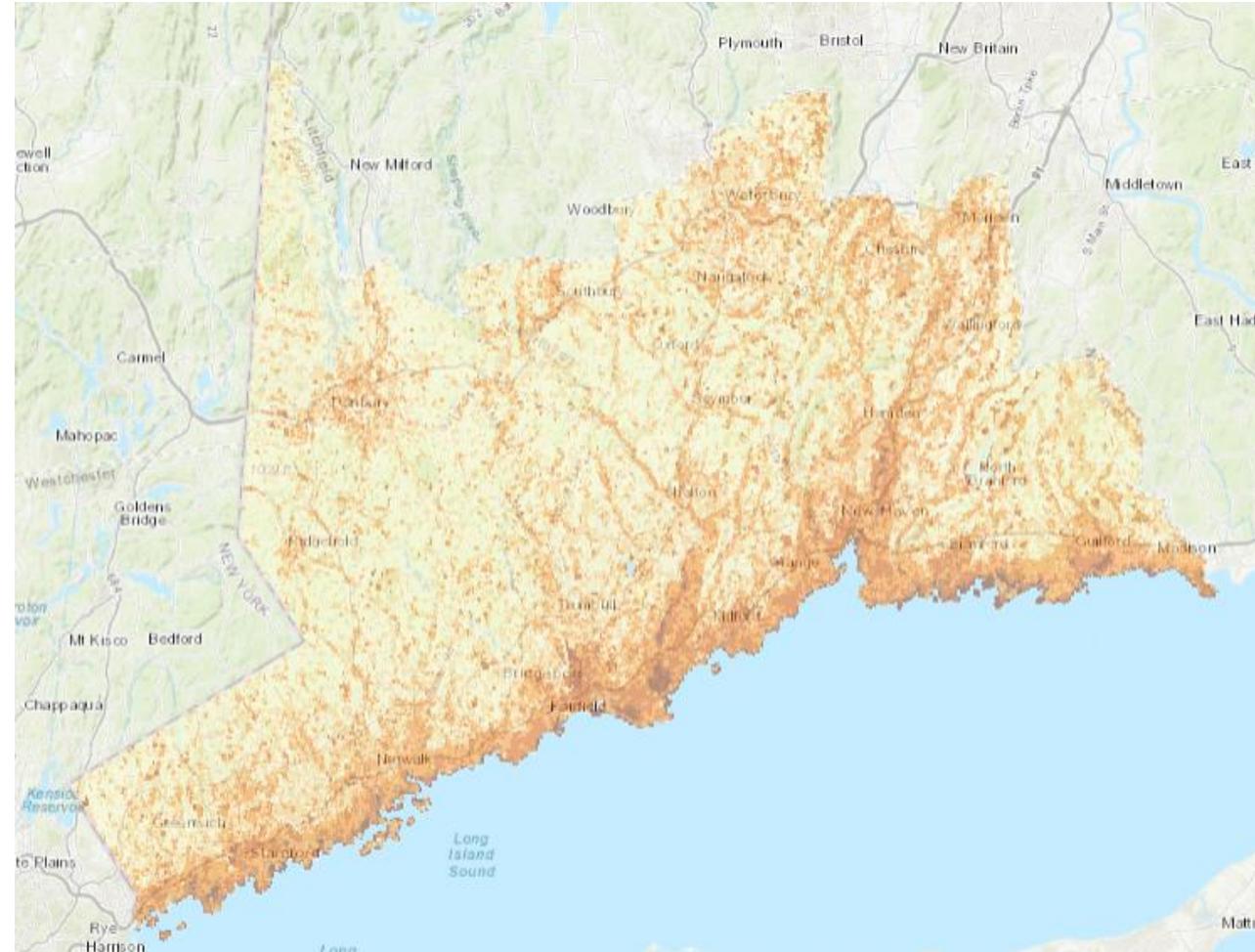
Poll #1 Sensitivity

Built	Social	Ecological
Building Density	Avg. # Per Household	Critical Habitats
Bus Yards	Unemployment	Land Cover
Critical Facilities	Lack of Vehicle	NDDDB Areas
Private Wells	Disability	
Rail Yards	Population density	
Railways	Under 5 & Over 65	
Septic Systems	Race & Ethnicity	
Roadways	English Proficiency	
	No High School Diploma	
	Median Income	
	Living Below Poverty Level	

Exposure

Degree of the stress that the particular asset is going through with climate variability. Exposure includes the change, including magnitude and magnitude and frequency of extreme events.

*Climate
Physical*



Poll #2: Exposure

Climate	Physical
FEMA Flood Zones	Pooling Areas
Sea Level Rise Projections	Erosion Susceptibility
Storm Surge	Impervious Surface Density
Tidal Range	Shoreline Change Rate
	Soil Drainage Properties



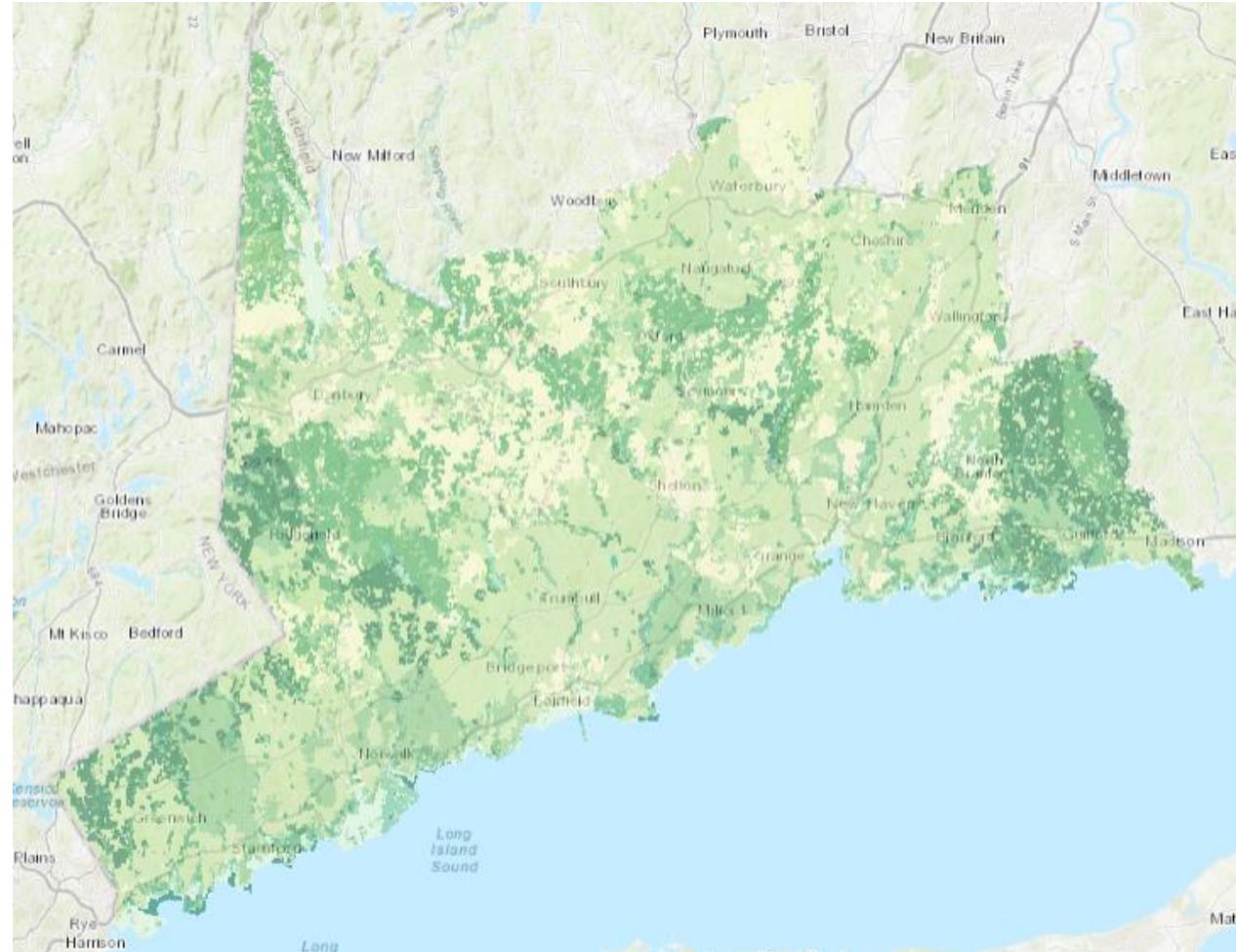
Adaptive Capacity

Is the ability of a system to adjust to changes, manage damages, take advantage of opportunities, or cope with consequences

Built

Social

Ecological



Poll #3 Adaptive Capacity

Built	Social	Ecological
Coastal Structures	Flood Policies in Force	Open Space in Flood Zones
Distance to Hospitals	Communication Systems	Marsh Migration
Distance to Shelters	Owner Occupied Housing	Resilient Landscapes
Low Impact Development		
Distance to Major Routes		
Regulatory Programs		
Riverine Flood Protection		
Public Water Areas		
Sewer Service Areas		

S

E

AC

Map Overview