



BUILDING CLIMATE RESILIENCE:

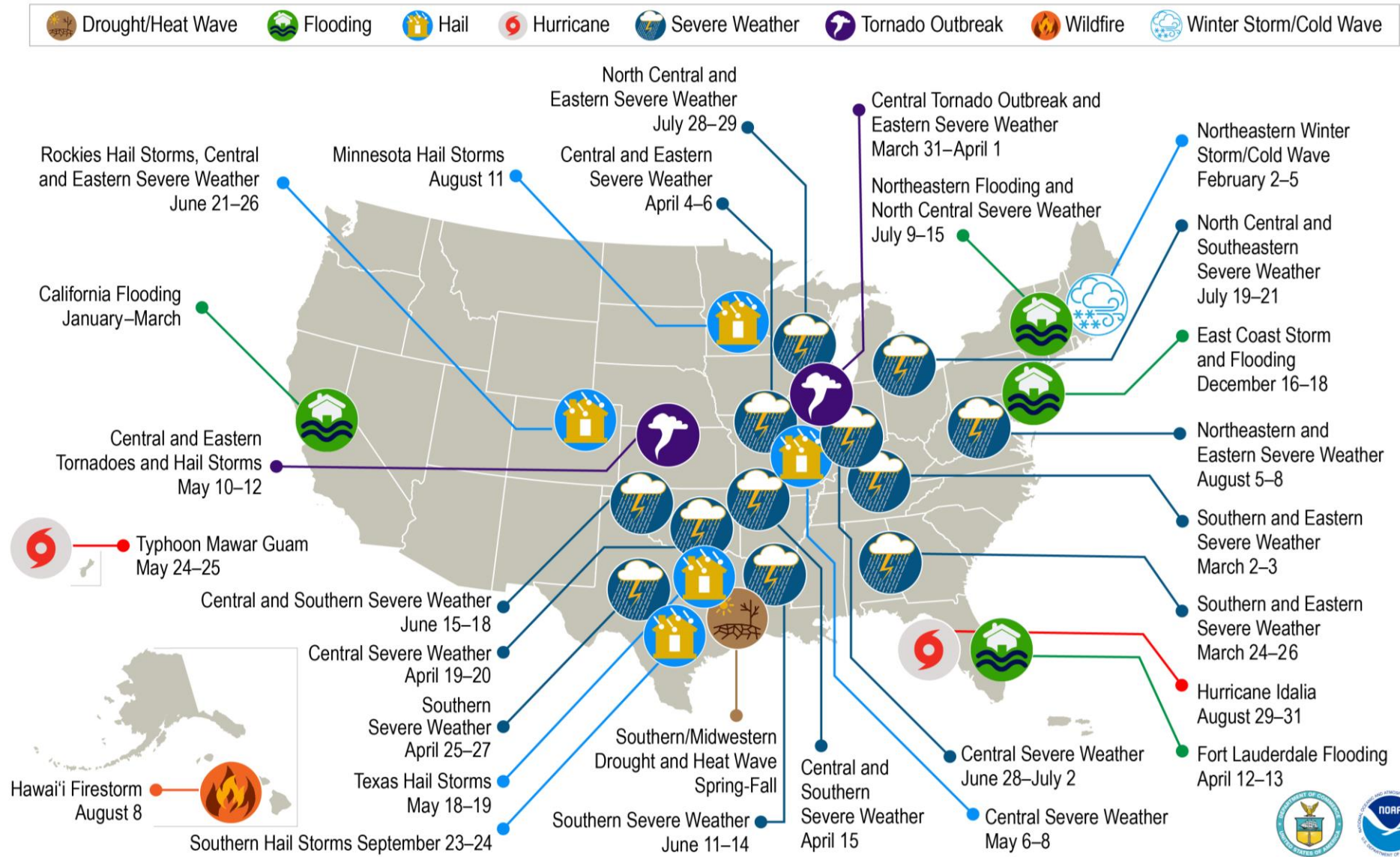
Understanding Climate Vulnerability for a Brownfield Community

CLIMATE CHANGE IS:

- **REAL & ALREADY HERE**



U.S. 2023 BILLION-DOLLAR WEATHER AND CLIMATE DISASTERS

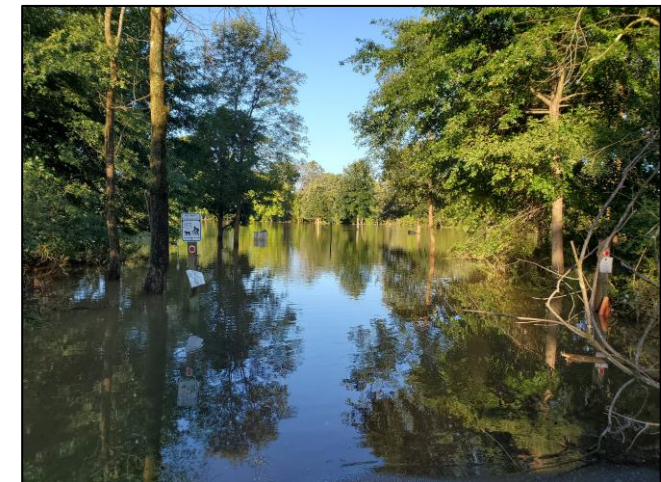
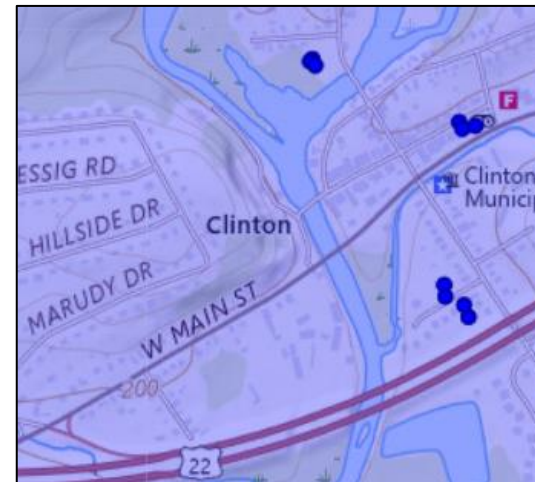


This map denotes the approximate location for each of the 28 separate billion-dollar weather and climate disasters that impacted the United States in 2023.



UNDERSTAND THE HISTORY OF THE SITE AND SURROUNDING AREA

- Read the local hazard mitigation plan
- Look for imagery
- Use Google & social media
- Search for high water marks
- Talk to neighbors & community officials



CLIMATE CHANGE IS:

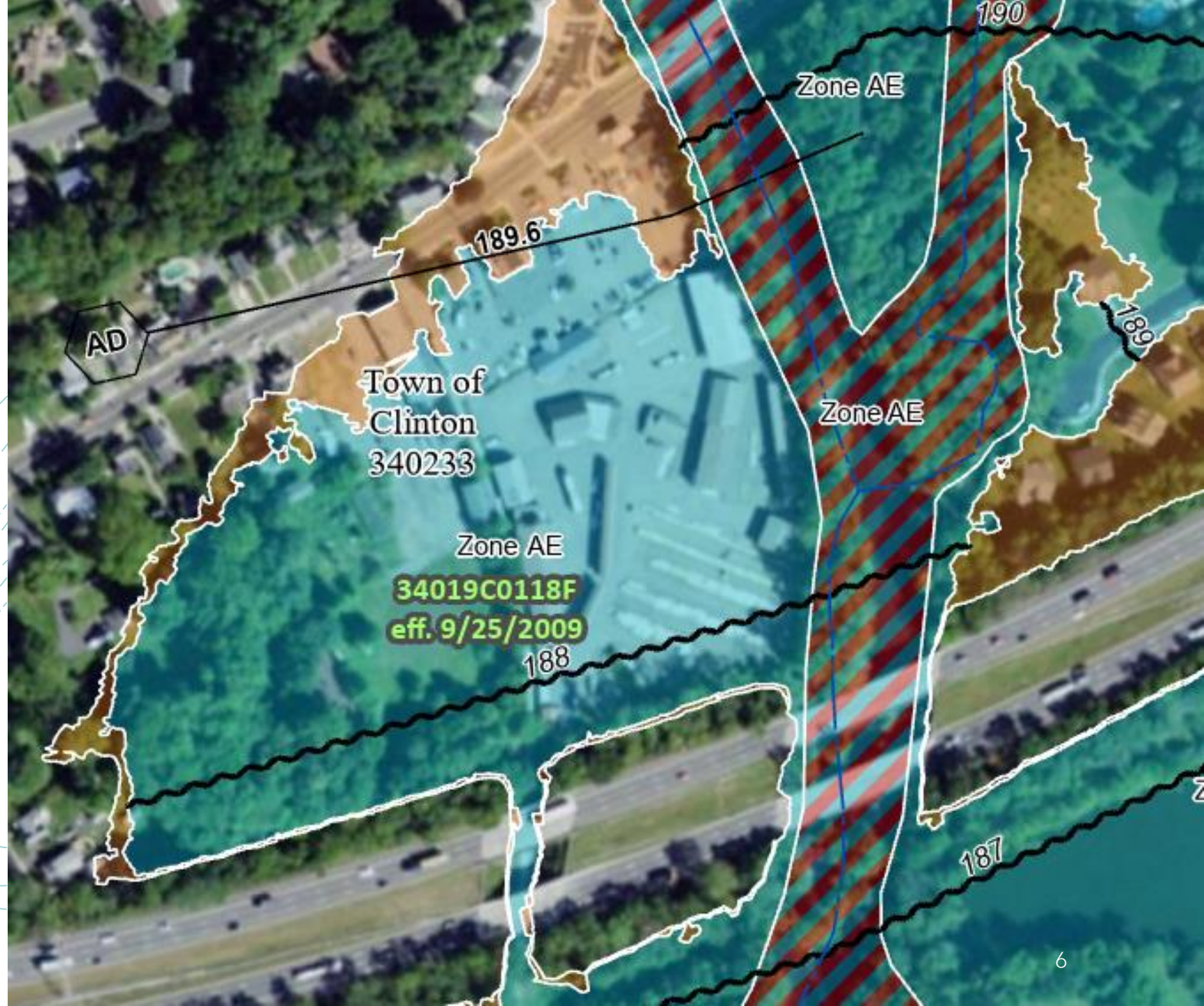
- REAL & ALREADY HERE
- **UNCERTAIN**



Uncertain

Understand the Science

- New DEP rules, FFRMS
- For flood - use 1%, .02%,
- Sea Level Rise - understand multiple projections
- Custom modeling



CLIMATE CHANGE IS:

- REAL & ALREADY HERE
- UNCERTAIN
- **DYNAMIC**



Dynamic

Identify risk tolerance

- Don't assume you know all the climate impacts
- Embrace reality of residual risk
- Understand adaptative capacity potential
- Explore multiple uses & alternatives

Climate change having unprecedented effect in Maine

Kathryn Carley
4th June 2024, 21:14 GMT+10

A year of record global heat has pushed Earth closer to dangerous threshold

Story by Scott Dance • 2d • ⌚ 5 min read

Maps show how "Tornado Alley" has shifted in the U.S.

Story by Kerry Breen • 23h • ⌚ 2 min read

Study: Climate change could make groundwater unsafe for millions

8h • ⌚ 2 min read

Climate change added a month's worth of extra-hot days in past year

The past 12 months have been the planet's hottest ever measured, and the burning of fossil

The New York Times • 23d

The Possible Collapse of the U.S. Home Insurance System

And what it shows is maybe the threat of climate change isn't quite what we thought. Maybe instead of climate change wrecking communities in the form of a big storm or a wildfire or a flood ...

CLIMATE CHANGE IS:

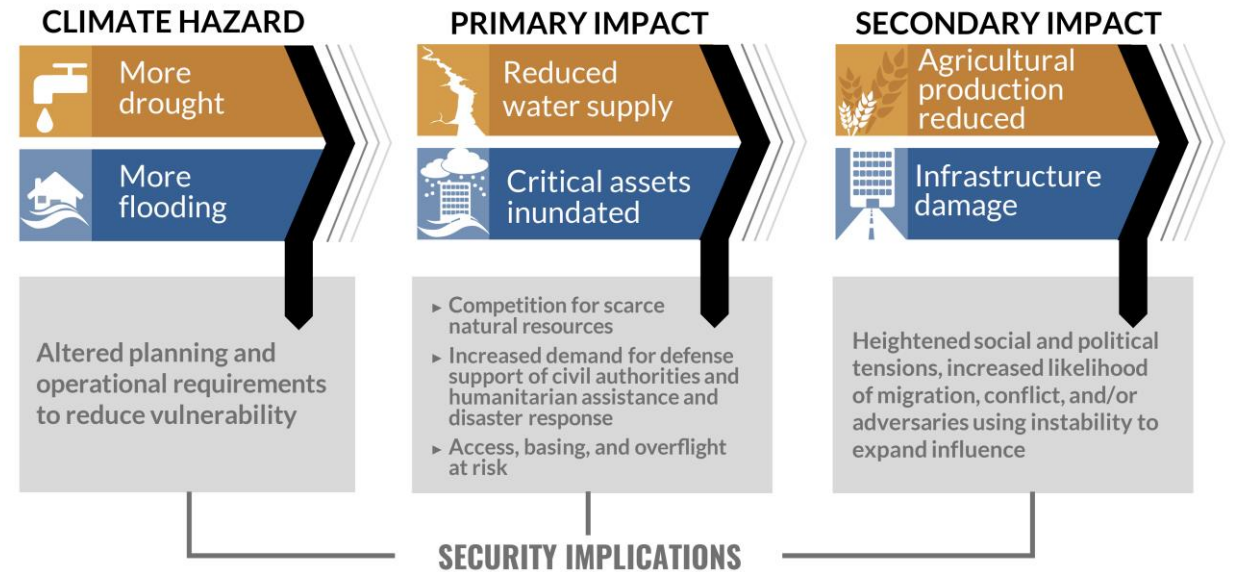
- REAL & ALREADY HERE
- UNCERTAIN
- DYNAMIC
- **A THREAT MULTIPLIER**



A Threat Multiplier

Consider existing vulnerabilities

- Aging infrastructure
- Water table changes
- Climate gentrification
- Social vulnerability
- Aging population
- Income instability
- Disinvestment
- Traffic
- Parking



Sewer overflows in North Carolina reflective of aging infrastructure, growing population & extreme weather events

In 2024, there have already been 30 reported sewer overflows in Wake County, totaling more than 336,000 gallons of raw sewage spilling into the environment.

CLIMATE CHANGE IS:

- REAL & ALREADY HERE
- UNCERTAIN
- DYNAMIC
- A THREAT MULTIPLIER
- **COMPOUNDING**



Compounding

Explore the Complexities

- Leverage tools and guidance
- Use scenario planning
- Form problem statements

Climate change is increasing the chances of multiple climate hazards occurring simultaneously or consecutively across the US and its territories.

- Fifth National Climate Assessment



CLIMATE CHANGE IS:

- REAL & ALREADY HERE
- UNCERTAIN
- DYNAMIC
- A THREAT MULTIPLIER
- COMPOUNDING
- **AN OPPORTUNITY**



An Opportunity

Build co-benefits:

- Meet sustainability goals
- Opens funding opportunities
- Builds community support
- Fosters partnerships
- Benefit-Cost Analysis favors co-benefits
- Put it in your plan



THANK YOU

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