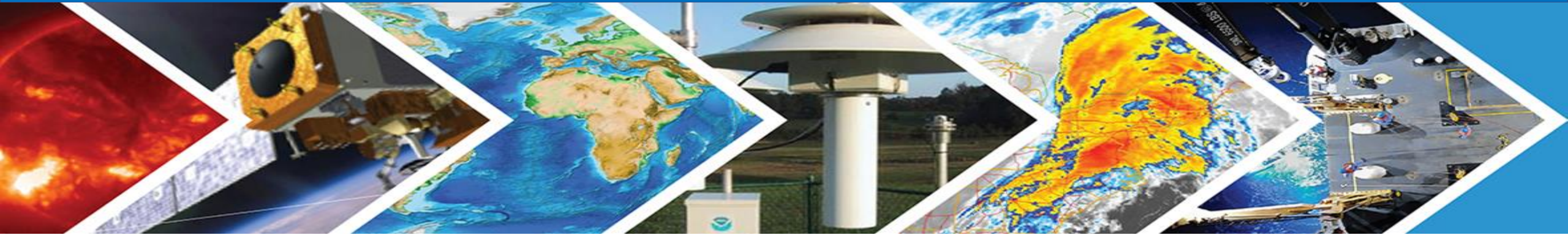


Climate Services- Applications to Heat Health and Barriers to Implementation



Ellen Mecray, NOAA Regional Climate Services Director- Eastern Region
NOAA/NESDIS/NCEI Regional Climate Services



NOAA Satellite and Information Service | National Centers for Environmental Information

Rising Demand for Environmental Information for Decision-making

NOAA's Societal Challenge Areas



COASTS
Community Resilience



CLIMATE
Extremes



WATER
Drought and
Flooding



S2S
Icing, wind, heat

Application of NOAA's Information by Sector



Agriculture



Energy



Health



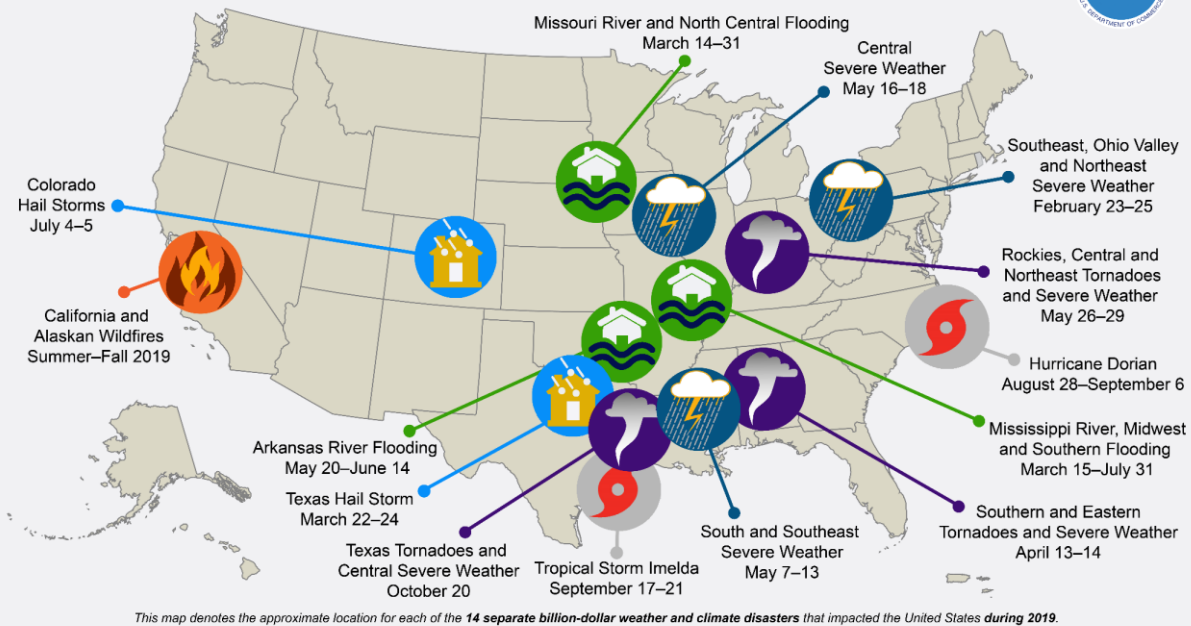
Transportation



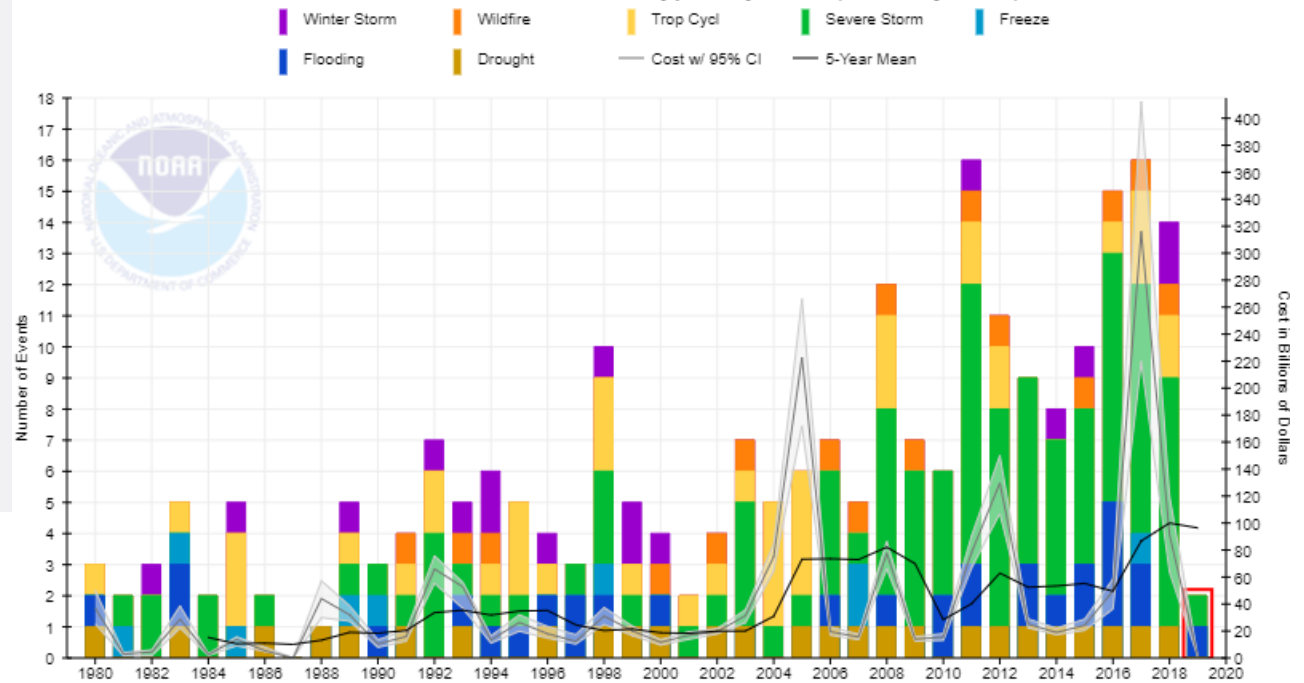
Sustainability of Marine
Ecosystems

Why our Work Matters

U.S. 2019 Billion-Dollar Weather and Climate Disasters



Billion-Dollar Disaster Event Types by Year (CPI-Adjusted)



SOURCE: NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2020). <https://www.ncdc.noaa.gov/billions/>

International Context: WMO/WHO

- US, Canada, Mexico, and the Caribbean can collaborate on regional climate services for health. **Regional Priorities (RA IV)** are currently being discussed.
- The **WHO-WMO Master Plan on Health, Environment, and Climate Science to Services** was endorsed at the 2019 WMO Congress, prioritizing :
 - (a) **Climate and Health:** Enhance health system resilience to climate variability and climate change through improved evidence, capacity, provision and application of climate information products and services to health policy and programming.
 - (b) **Weather and Climate Extremes and Health Emergencies:** Enhance Health Emergency and Disaster Risk Management to better understand, anticipate, and manage health risks of extreme weather and climate events, and benefit from Multi-hazard Early Warning Systems.
 - (c) **Atmosphere and Environment:** Strengthen and harmonize air quality and radiation-related monitoring, modelling, and use of atmospheric and environmental science in public health, including in environmental emergencies.
 - (d) **Water and Health:** Enhance water sanitation and hygiene (WASH) sector climate risk management capacity to maintain and improve access to and quality of water and sanitation through improved availability and use of climate and hydrological information products and services.



Source wmo.int, edited for brevity



Canadian Centre for Climate Services

The Canadian Centre for Climate Services (ECCC/CCCS) was established in 2017 to ensure that Canadians have the information and support they need to **understand and plan for climate impacts**. The CCCS **works to increase access** to useful and timely climate data, information, and tools **to support adaptation decision-making** through the following key areas of focus:

- Co-delivering climate services through a network of regional climate expert organizations (hubs) to ensure Canadians have access to locally relevant information and expertise;
- Increasing awareness and access to climate data and information;
- Engaging with users to understand their specific needs;
- Providing training and guidance on using climate data and incorporating climate change considerations into decisions; and
- Co-developing new information and data products through collaboration with users and climate scientists.

The Global Heat Health Information Network (GHHIN)

GHHIN aims to improve the capacity of governments, organizations, and professionals to protect

the avoidable
climate



Learning
exchange

Country
profiles

Online
platform

Global
synthesis
report



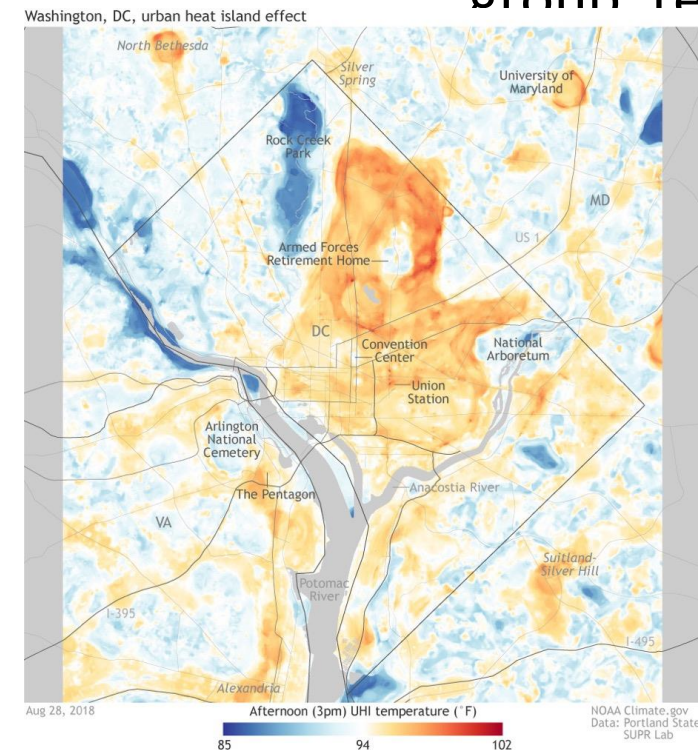
Global to National Information Systems Improving
Climate Services for Heat Health

The National Integrated Heat Health Information System

The National Integrated Heat Health Information System improves climate services for heat health decision making through an interagency working group, regional-local

piloting new
Community
science hubs.

Campaigns for
Urban Heat
Island Mapping



NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION

US/ NOAA National and Regional Climate Services

Developing and Delivering Products and Services

State Climatologists: <http://stateclimate.org/>

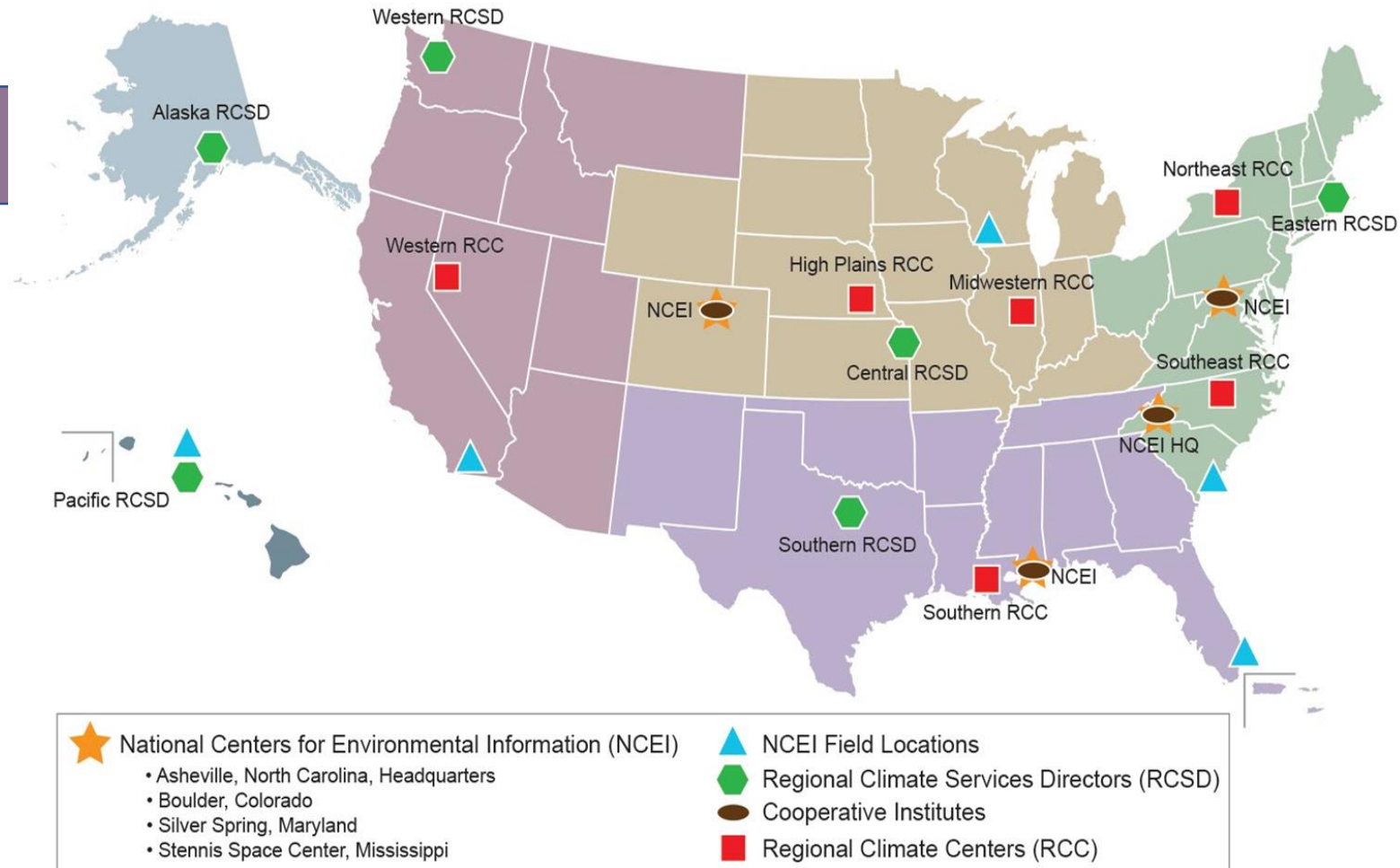
Regional Climate Centers:

<http://www.ncdc.noaa.gov/customer-support/partnerships/regional-climate-centers>

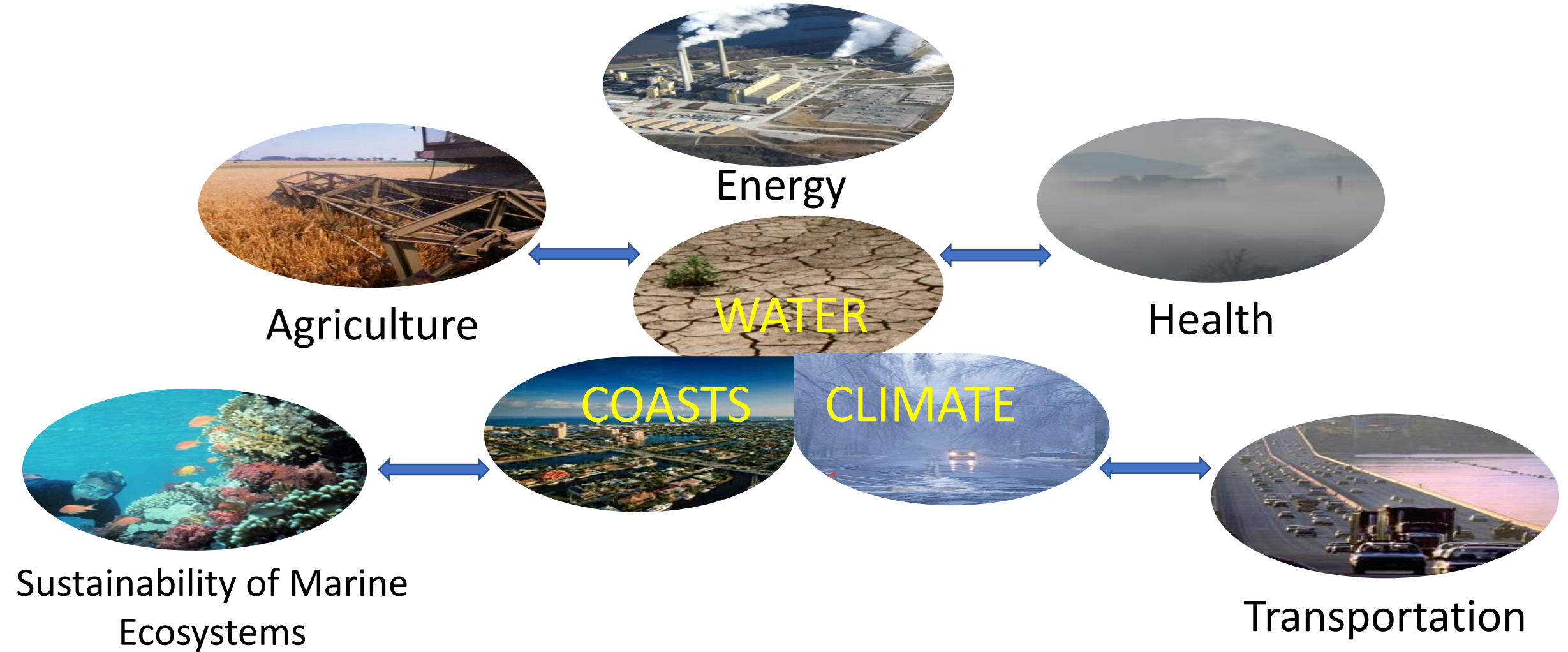
Regional Climate Services Directors:

<http://www.ncdc.noaa.gov/rcsd>

Federal
State
Academia
NGOs
Tribes

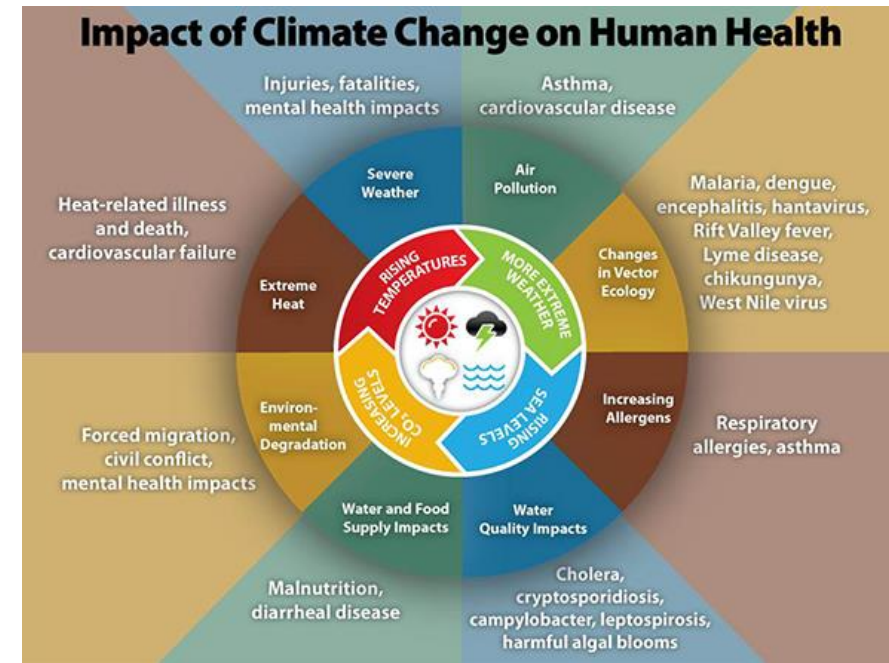
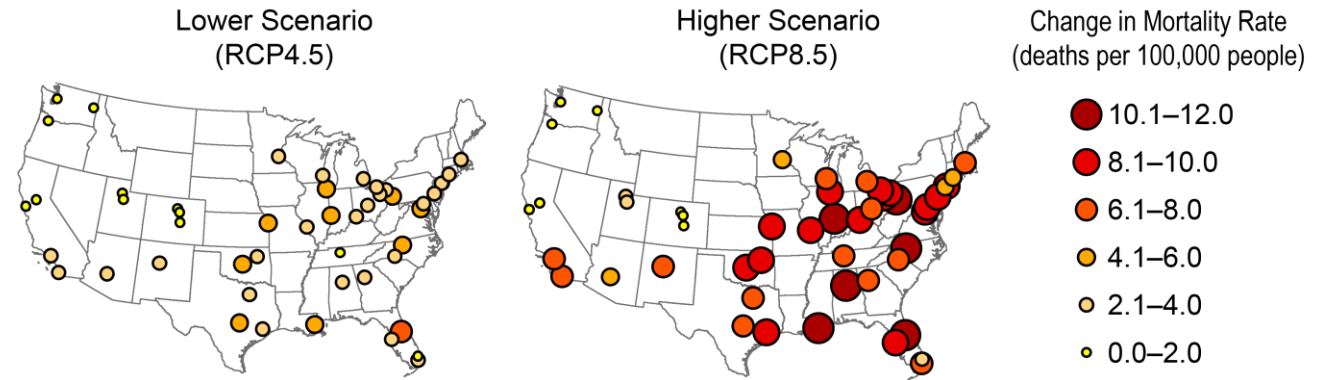


Services by Sector



NCA4 Chapter 14: Human Health in a changing climate

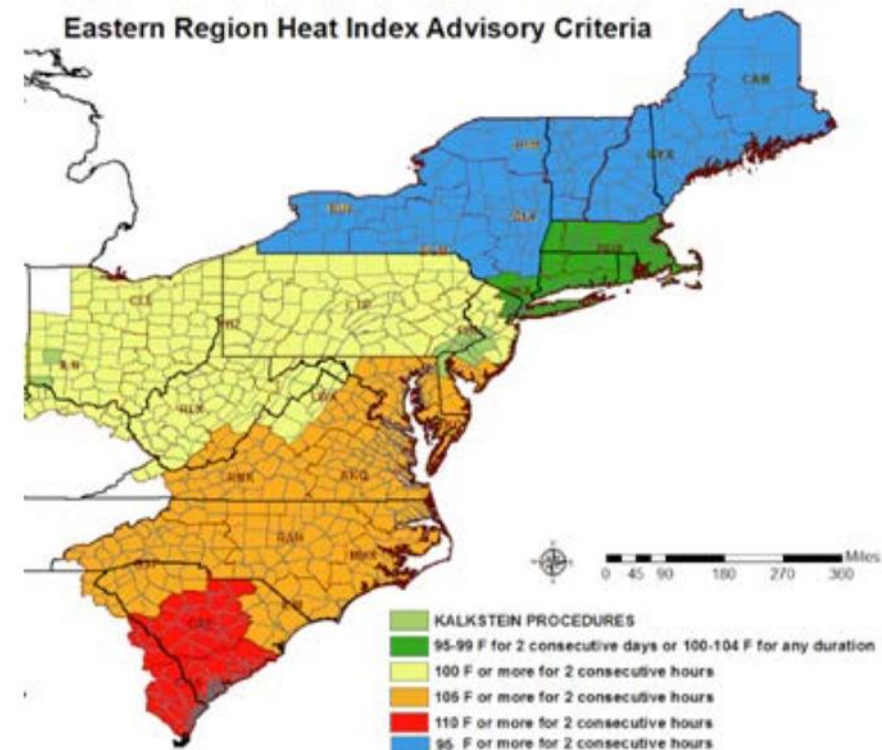
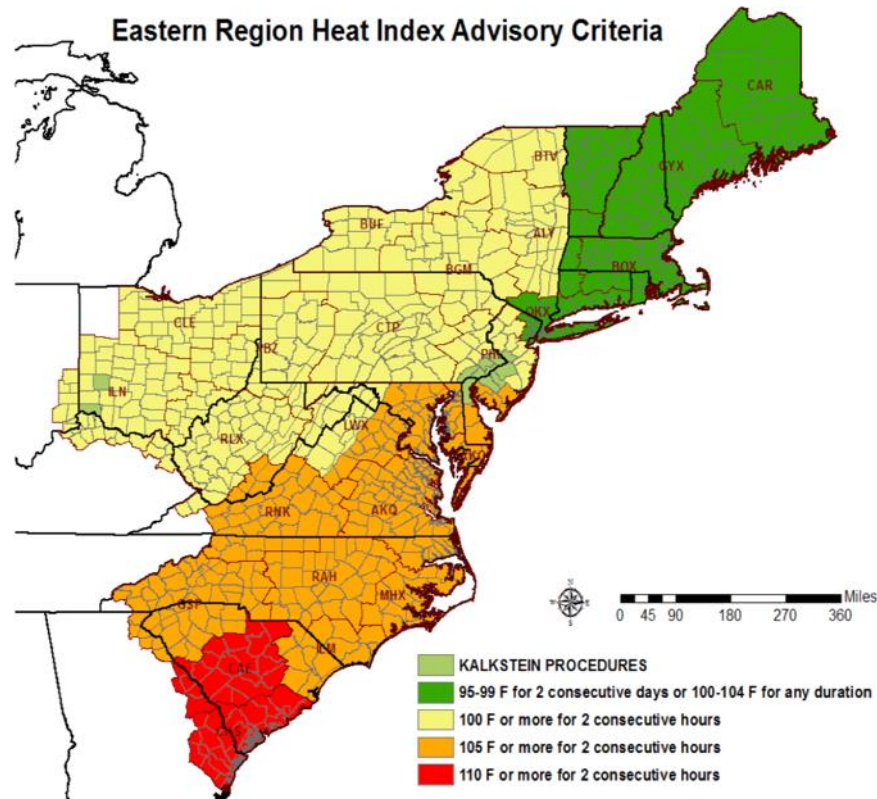
Climate Change and Health



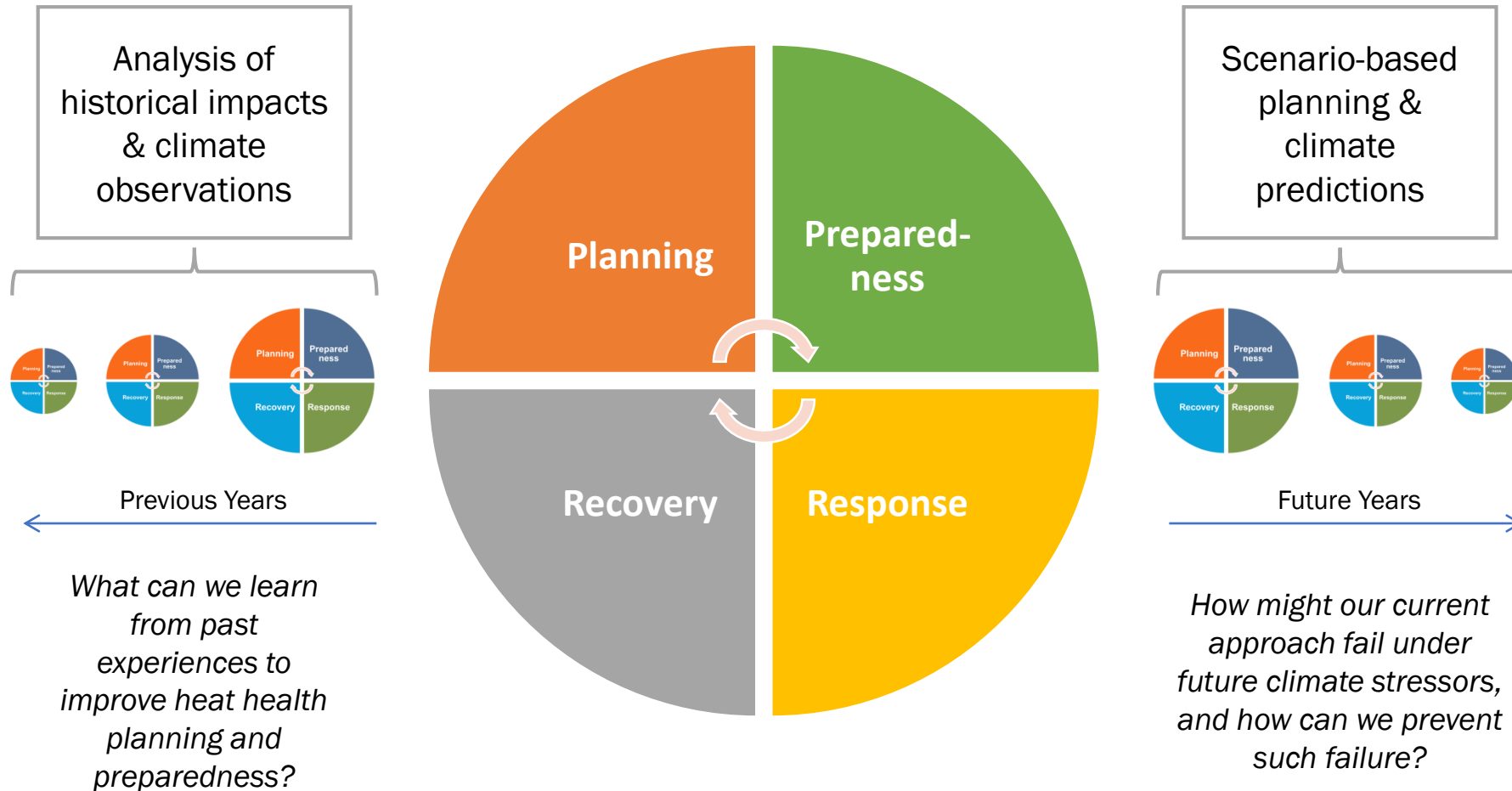
Climate Services and Heat in the Northeast

NWS WFOs in New England worked with state Health Departments to lower heat advisory thresholds based on mortality and ED visits.

- Formerly, the criteria were 95-99 F for 2 days.
- Now the criteria are 95 F for more than 2 consecutive hours.

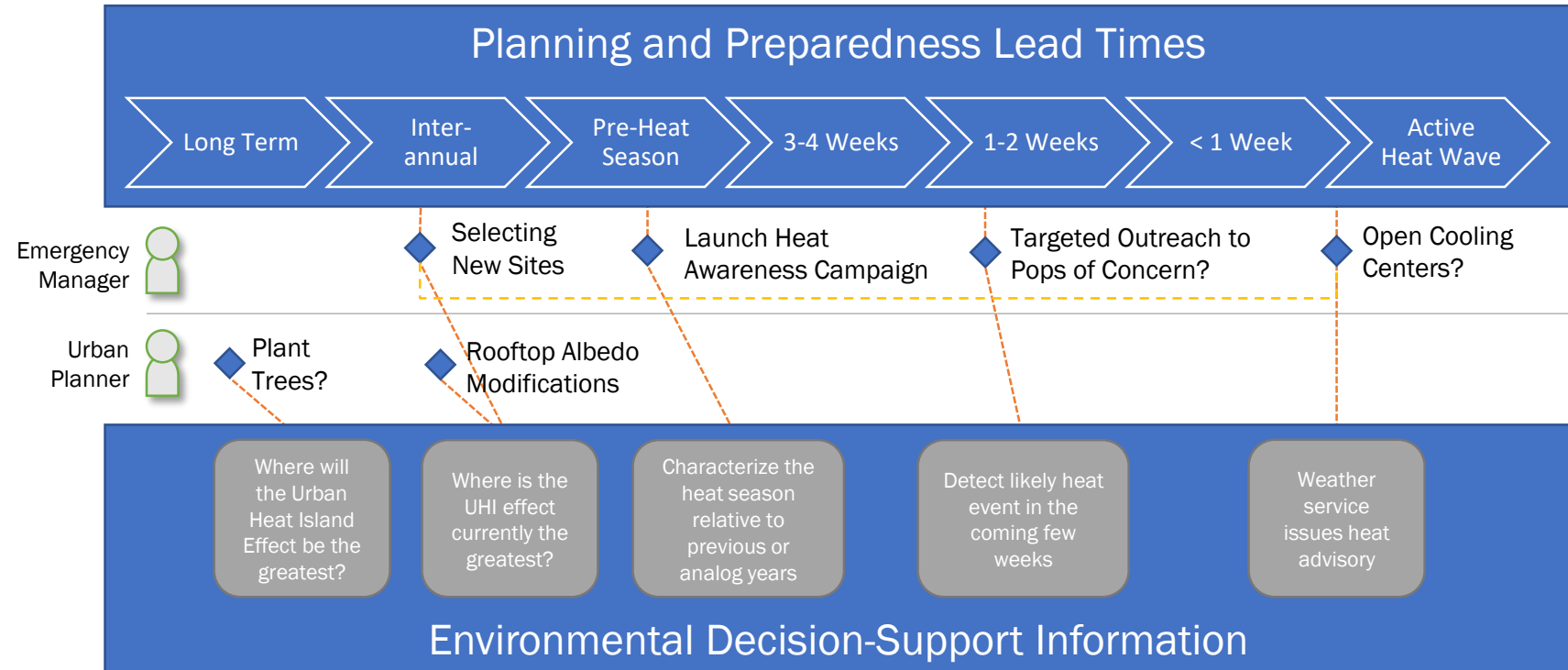


Heat Health- Understanding at Decision Timescales Using the Risk Management Annual Cycle



Decision Calendars

• Decision calendars are a framework to organize information about user context in decision-making. They document what needs to be known when, by whom, and with what certainty in order to take actions to reduce heat health risk.



For more background see:

Ray, A. J., & Webb, R. S. (2016).

Understanding the user context: decision calendars as frameworks for linking climate to policy, planning, and decision-making.

Climate in Context, 27–50. doi:10.1002/9781118474785.ch2

Cities need better information on urban heat in order to target actions

The New York Times

New York City Triathlon Canceled This Year, but Will Still Be in July in 2020

The decision to cancel it came a day after Mayor de Blasio urged race directors not to hold the event on Sunday, when temperatures in the high 90s are expected.

By Danielle Allentuck

July 18, 2019



The Guardian

Re-greening: can Louisville plant its way out of a heat emergency?

Josh Wood • Last modified on Mon 3 Feb 2020 07:45 EST

The Kentucky city is the fastest-warming urban heat island in the US – and as its temperature has risen, its tree cover has plummeted



A 2015 study found that Louisville lost 54,000 trees a year between 2004 and 2012. Photograph: Roya Oshrieh/Alamy

CITYLAB

The Problem With 'Cool Pavements': They Make People Hot

A tool to help solve the problem of urban heat islands could have an unwelcome side effect, new research in L.A. finds.



Workers apply CoolSeal to a street in Pacoima in June. Los Angeles Bureau of Street Services

A Model for Service Delivery

Descriptive, not prescriptive.

Moving from engagement to the building of new, and refining of existing, tools and resources!

Meeting the needs of decision-makers with NOAA's information across all timescales.



Questions?

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<http://www.ncdc.noaa.gov/rcsd/eastern>

October 19, 2020

Aspen Institute Heat Resilience meeting
Invited Panelist

