

**Welcome to  
the Eco-City  
Academy!**

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Alarmed



Concerned



Cautious



Disenaged



Doubtful



Dismissive



YALE PROGRAM ON  
Climate Change  
Communication



# Six Americas Super Short Survey (SASSY!)

SASSY Six Americas  
Super Short Survey  
(SASSY!) - Yale  
Program on Climate  
Change  
Communication

# Introductions

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Name / Nickname

Survey Results

Something you are good at...

# CLASS 1

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# Class 1: Climate Change, Introduction to Eco-City

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- What is ECA?
- Climate and Environmental Justice Perspective
- What is it Climate Change, Context in Alexandria
  - City Goals, EAP, OCA
- Overview of Emergency Management
  - Mitigation and Preparedness for climate-related disasters.



# What is the ECA?

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City's climate **goals, services**, and programs, that can help you to benefit of programs and take individual actions.

- City's Environmental Action Plan (EAP).
- Steps (departments) towards these goals.
- Residents' role.
- Interaction







# Climate Change

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- Applicants' awareness and concerns.
- Shift in weather patterns.
- Mid-20th century, human activities – fossil fuels.

# Climate Justice

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- A social issue- **anyone's daily life**
- **Not all climate impacts are equal.**
- **Effects on marginalized communities.**
- **Inequities.**





Climate justice begins with recognizing key groups are differently affected by climate change.



- Flooding
- Fires
- Increase Heat



Equity means promoting just and fair inclusion throughout our city, and **creating the conditions** in which everyone can participate, prosper, and reach their full potential.



## ALL Alexandria Resolution: Committing to Race and Social Equity

Reduce and eliminate disparities and inequities experienced by ALL Alexandria residents, **especially residents of color** and those that **have been historically and systemically marginalized**.

- ALL Alexandria means **each and every** resident thrives in our historic, vibrant and diverse city.
- ALL Races, Religions, Countries of Origin, Sexual Orientations, Ages, Genders and Abilities.

# Environmental Justice Strategy

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**To promote environmental justice**

**Alexandria needs to:**

- Acknowledge and address difference
- Empower affected communities
- Develop new programs



# Bringing it home

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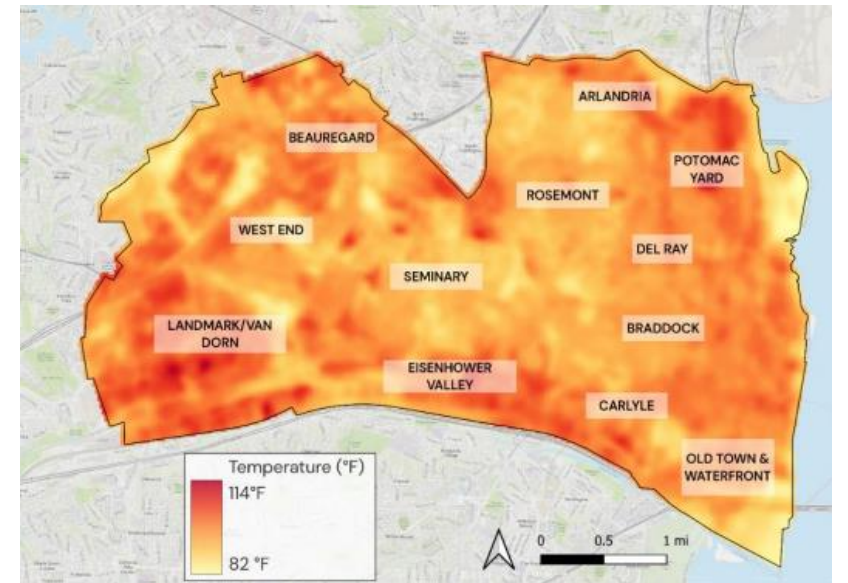
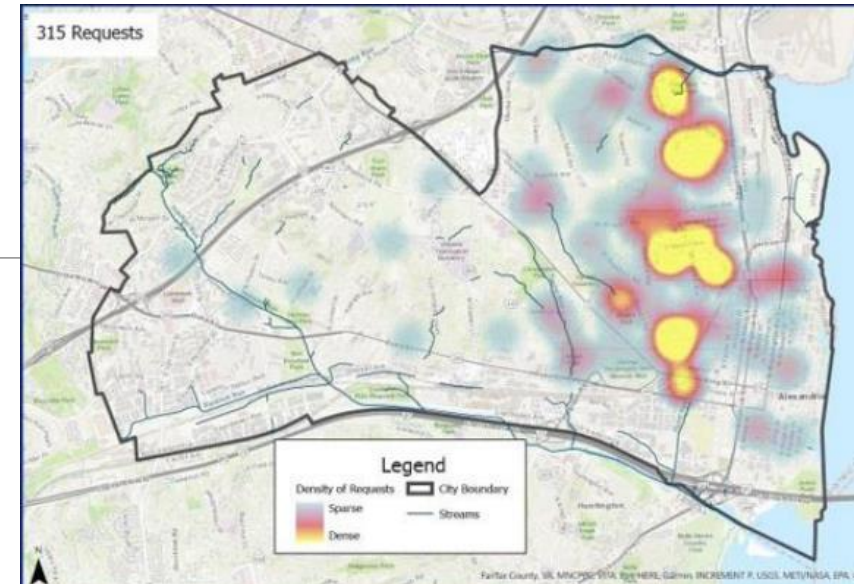




# What is Climate Change? Context in Alexandria

Alexandria faces 3 major impacts from Climate Change:

- 1) Coastal flooding
- 2) Increased storm intensity
- 3) Increased high heat days



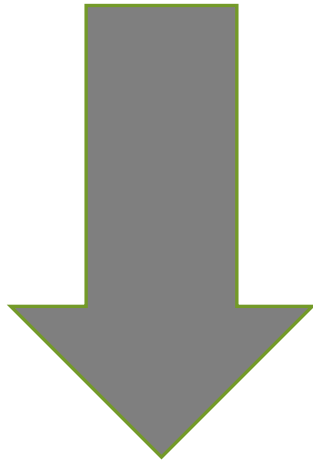


# Defining Mitigation, Adaptation, & Resilience

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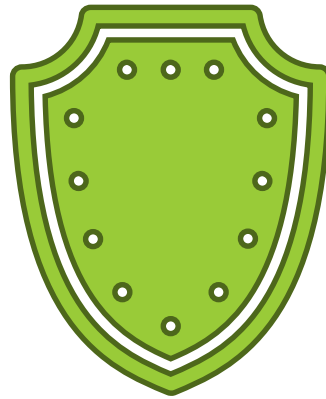
## Mitigation

Lowering emissions



## Adaptation

Actions to prepare



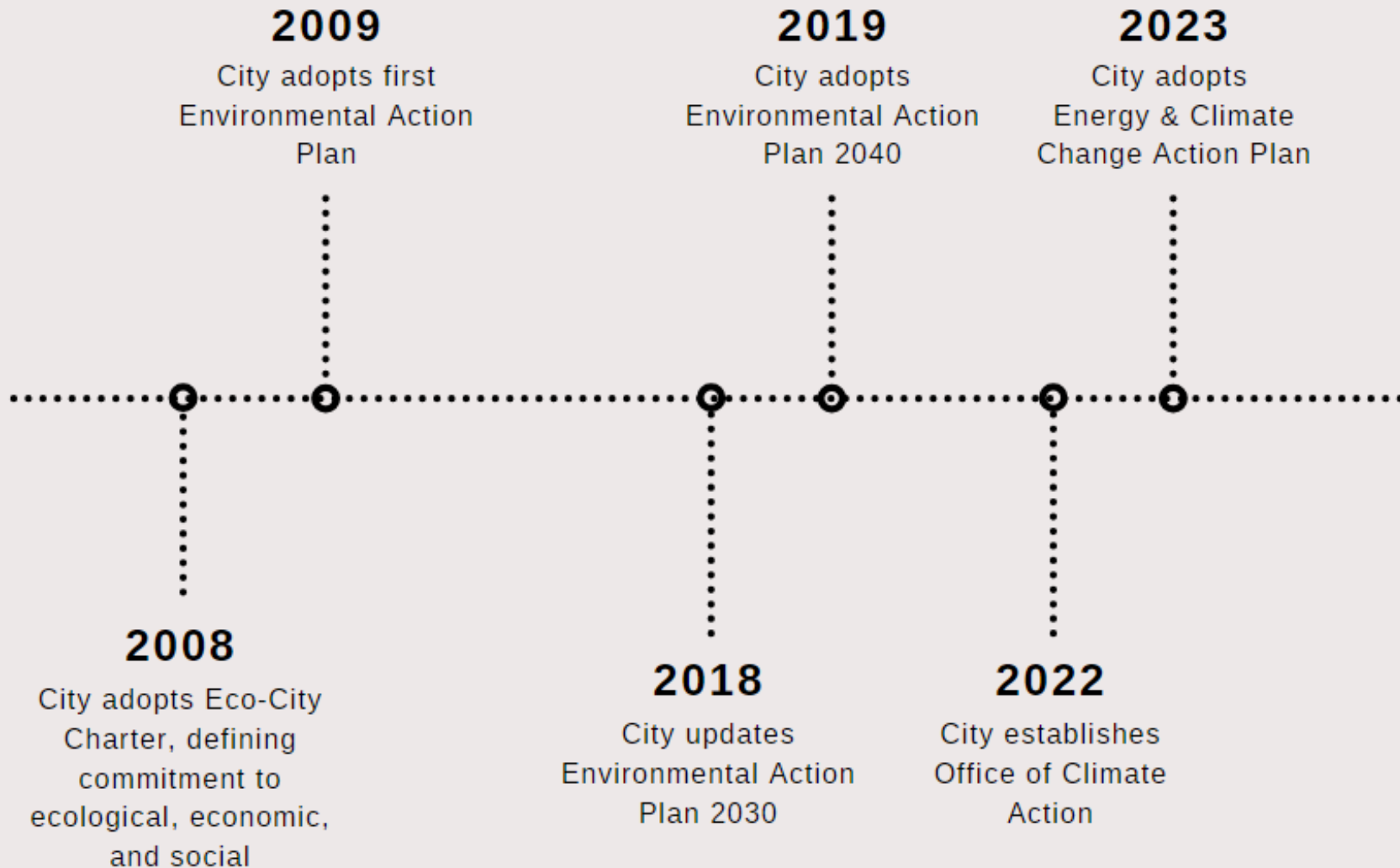
## Resilience

State of being

Ability to bounce back



# Eco-City Planning



# Who is the Office of Climate Action



Ryan Freed  
Climate Action Officer



Amy Posner  
Electric Vehicle Planner



Dustin Smith  
Green Building Manager



Samantha Heitsch  
Sustainability Coordinator



Sharath Rereddy  
Energy Management Analyst



Valerie Amor  
Energy Manager



Yulia Fernández Marcos  
Community Engagement &  
Climate Justice Manager

# What are all these plans?

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## Environmental Action Plan 2040

- Sets overall goals for the City
- 10 categories of action
- 125 separate actions being tracked
- 15 City Departments involved

## Energy & Climate Change Action Plan

- Identifies specific targets for achieving GHG reduction targets
- Explores based on impact and equity

# What are Alexandria's Climate Goals?

Climate Change: Reduce GHG emissions by 50% by 2030,  
80% by 2050

City Energy: 100% Renewable for City facilities by 2020

25% Reduction in energy use by 2027

Land Use & Open Space

- 40% tree canopy by 2035
- 7.3 acres open space per 1,000 residents

Solid Waste: Reduce 0

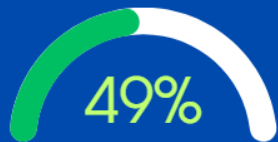


# What it takes to get there

## SCALE OF ACTION TO REDUCE GHG EMISSIONS IN ALEXANDRIA

53,000

HOMES RETROFIT TO BE ENERGY EFFICIENT



HOMES USING ELECTRIC HEAT

Electric heating is considerably more efficient than natural gas heating. Heat pumps operate at XX% higher efficiency. Removing natural gas from your home also increases safety and indoor air quality.



NEW HOMES BUILT TO BE HIGH PERFORMANCE

Prioritizing energy performance when you're building a new home is crucial. Find a builder that will design to passive house standards and use the most efficient HVAC systems possible.

## 13 Million

SQUARE FEET OF COMMERCIAL  
OFFICE SPACE RETROFIT TO BE  
ENERGY EFFICIENT



PERSONAL CAR SALES ELECTRIC

EVs are great - so we'll tell you about them here



ELECTRIC DASH BUSES

DASH has the largest electric bus fleet in the Commonwealth of Virginia, and it's growing! Plus, with fare-free rides, getting around Alexandria in a climate-friendly way is even easier!



MEDIUM- & HEAVY-DUTY  
ELECTRIC VEHICLES

Prioritizing energy performance when you're building a new home is crucial. Find a builder that will design to passive house standards and use the most efficient HVAC systems possible.

# Activity: Climate Change in Alexandria: Impacts and Solutions

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**Flooding from Rising Sea** (2 teams)

**Urban Heat Islands** (2 teams)

**Air Pollution from Traffic** (One team)

# Climate Change in Alexandria: Impacts and Solutions

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- Review your scenario.
- Discuss the challenges faced by **low-income communities** in the context of your scenario.
- Create a **list of these challenges**.
- Present your findings to the rest of the participants.

Think about community-driven solutions and policy changes that could make a difference.

# Office of Emergency Management

Marc Barbieri,  
Emergency  
Management  
Coordinator

## Office of Emergency Management

The Office of Emergency Management & Homeland Security (OEM) serves the entire City of Alexandria and works with various city, regional, state, and federal agencies to be fully successful in carrying out its mission.

RECENT NEWS: [City Council Adopts Updated Hazard Mitigation Plan](#)

On June 13, 2023, the Alexandria City Council unanimously [adopted](#) [the 2022 Northern Virginia Hazard Mitigation Plan \(NOVA HMP\)](#) and [City of Alexandria Annex](#). The NOVA HMP combines regional hazard identification and disaster resilience efforts through planning processes and related activities. The plan aims to reduce long-term vulnerability for the area.



<https://www.alexandriava.gov/EmergencyManagement>

# What is Emergency Management?

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- Managerial function charged with creating the framework within which communities reduce vulnerability to hazards and cope with disasters.
- Ongoing process to prevent, mitigate, prepare for, respond to, maintain continuity during, and recover from incidents that threaten life, property, operations, information, and the environment.



# What do we do?

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- Identify threats and hazards and assess potential impact.
- Develop plans to guide preparedness, response, recovery, and mitigation activities.
- Develop, plan, implement, and evaluate training and exercise activities.
- Conduct preparedness-focused public education and outreach.
- Support or lead other preparedness-related activities (e.g., grants, purchasing equipment, maintaining the City's EOC, etc.)

# Emergency Management and Climate Change

CLIMATE

## Why climate change makes a hurricane like Beryl more dangerous

JULY 4, 2024 · 6:00 AM ET

By Michael Copley, Rebecca Hersher

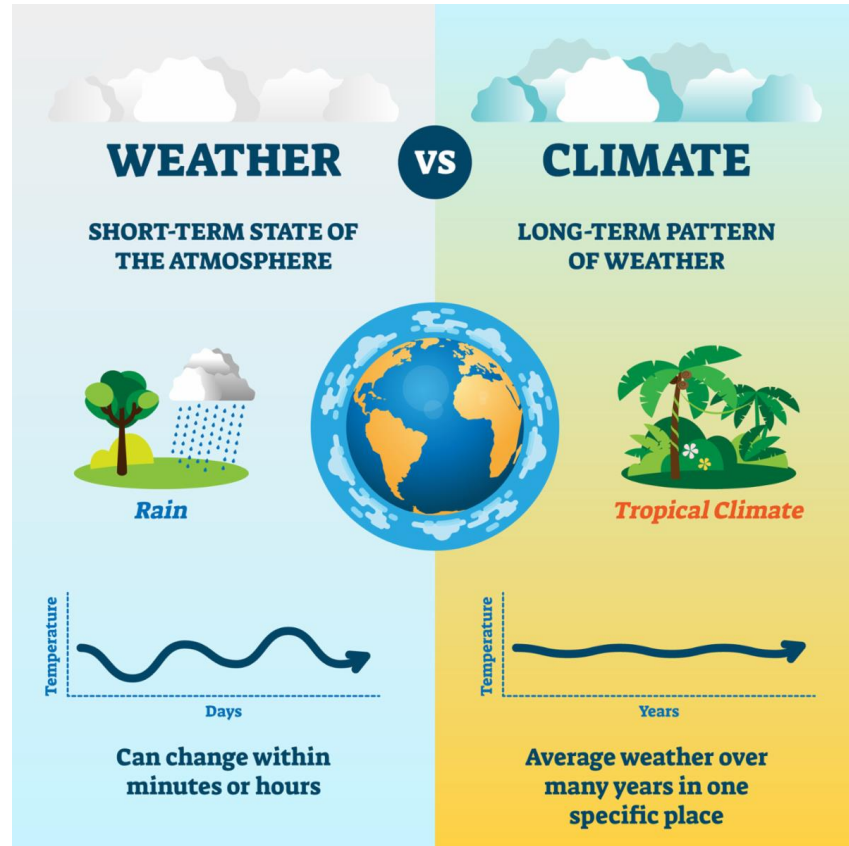


## *Stop politicizing climate change*

The eagerness to turn climate change into a culture war underscores a growing desire to ignore scientific consensus and factual evidence in favor of promoting ideological divides.



# Climate vs. Weather



**“Climate is what to expect,  
weather is what you get.”**

# How is climate change measured?

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- Observations come from weather stations, weather balloons, radar, ships, buoys, and satellites.
- A surprisingly large number of U.S. measurements are still made by volunteer weather watchers. Fun fact: there are more than 8,700 citizen observers in the NWS Cooperative Observer Program who log daily weather data.
- On the ocean, moored and drifting buoys have begun to replace ships in recent decades as the primary method for measuring temperatures at sea.



# Is climate change real?





# Earth shattered heat records in 2023 and 2024: is global warming speeding up?

*Nature* examines whether the temperature spike is a blip or an enduring – and concerning – trend.

## 2024's most costly climate disasters killed 2,000 people and caused \$229bn in damages, data shows

Analysis of insurance payouts by Christian Aid reveals three-quarters of financial destruction occurred in US

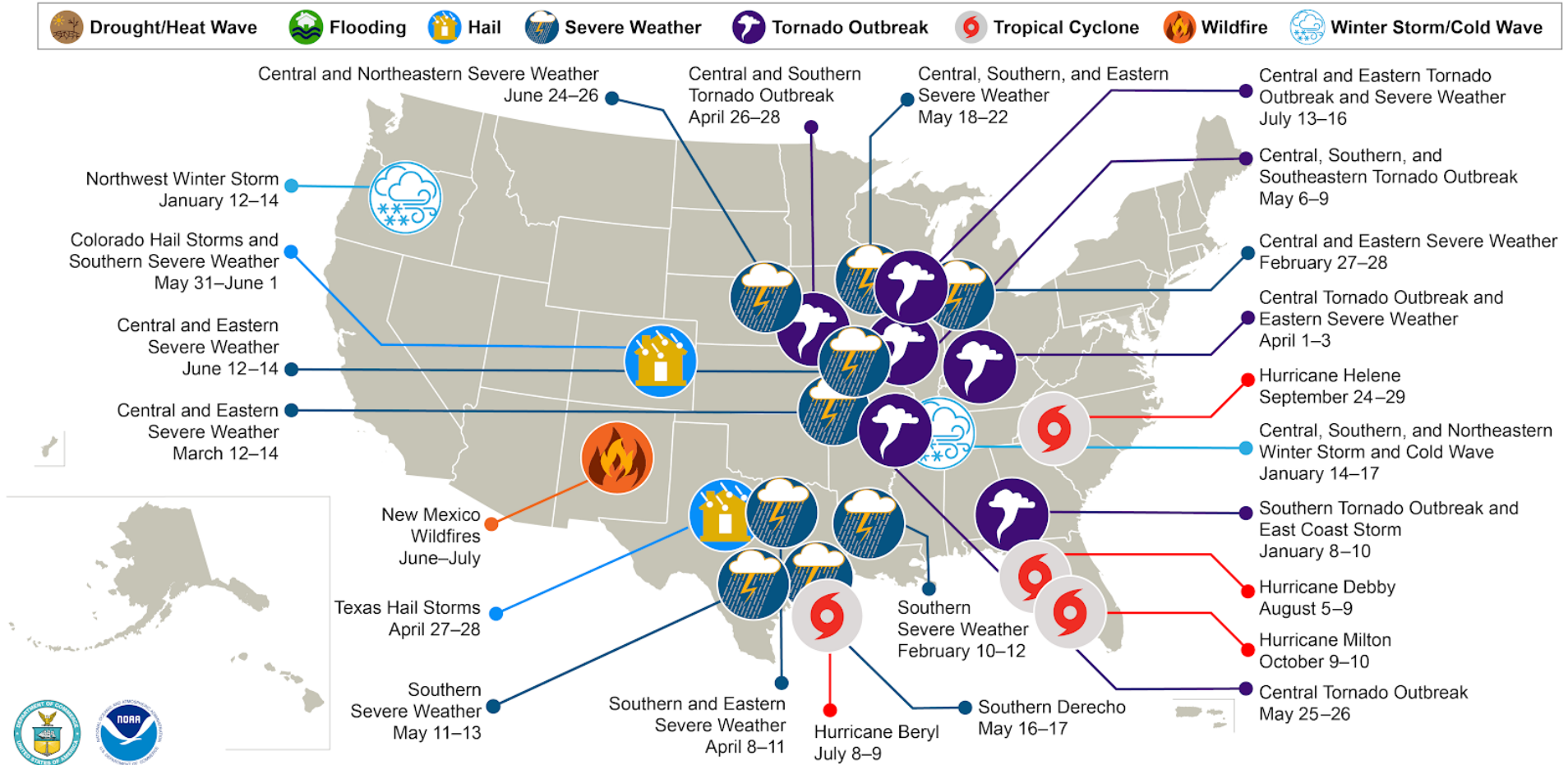
## 2024 is the hottest year on record, EU scientists say

By Kate Abnett and Alison Withers

December 9, 2024 9:36 AM EST · Updated a month ago



# U.S. 2024 Billion-Dollar Weather and Climate Disasters



This map denotes the approximate location for each of the 24 separate billion-dollar weather and climate disasters that impacted the United States through October 2024.



## Climate Adaptation Planning

Guidance for Emergency Managers

April 2024



## Climate Essentials for Emergency Managers

July 2023



# What are emergency managers doing to be prepared?

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# Emergency Managers Are Preparing By...

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- Becoming fluent in climate science and climate change
- Understanding meteorological science
- Building relationships with partners (e.g., NWS, academia, local departments of health and the environment, etc.)
- Incorporating climate change into our plans
- Working with partners on climate mitigation projects
- Doing climate-related exercises (using relevant scenarios)



# How can you prepare?

Time for an exercise!

- Preparing for emergencies and disasters requires you to take five "easy" steps:
  1. Know your risks
  2. Have a plan
  3. Build a kit
  4. Stay informed
  5. Get involved
  
- Tonight, we will focus on the first two steps:
  - Know your risks
  - Have a plan
  
- At your tables, work together to:
  - Identify threats and hazards in your community and neighborhood and their impacts
  - Determine what you (your household, business, etc.) would do to prepare for those threats and hazards
  - Develop recommendations for what the City can do to mitigate or prepare for those threats



Questions?  
Thank you!

Marc Barbieri, Emergency  
Management Coordinator

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Management and Homeland  
Security

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