



SIERRA CLUB
DELAWARE CHAPTER

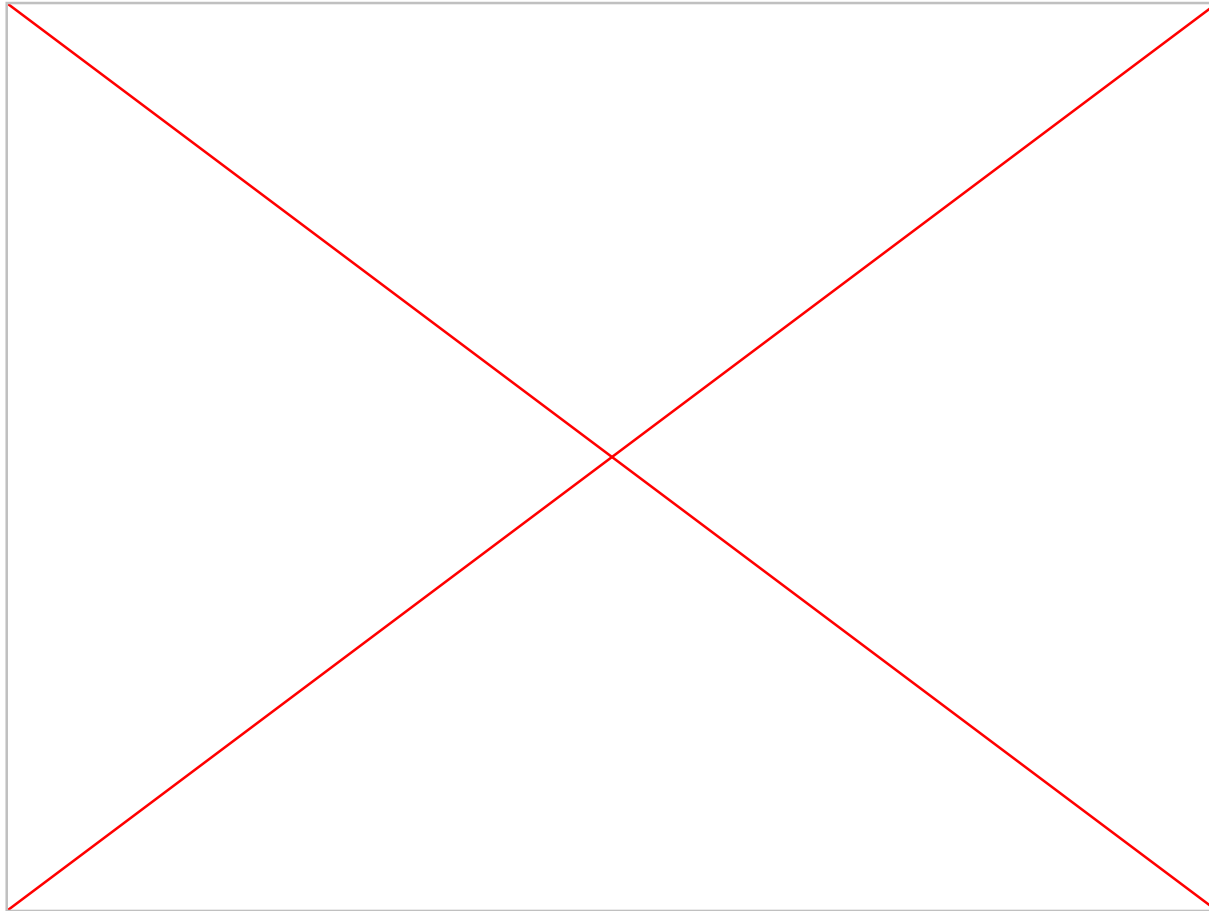
Climate Change and Extreme Heat

Marissa McClenton
Environmental Justice Associate Organizer
Sierra Club Delaware Chapter

Agenda



1. What is Climate Change?
2. Dangers of Extreme Heat
3. How Do We Address it?



Climate Change: Causes

Greenhouse gases (GHGs) are vapors in the atmosphere, like carbon dioxide, that trap heat around the earth. When we use fossil fuels like coal, natural gas, and oil to power our homes, businesses, and vehicles, we release even more GHGs into the atmosphere.

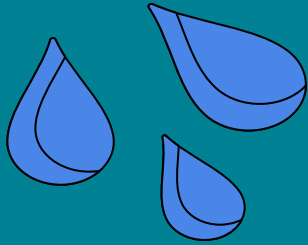
Humans have released a significant amount of GHGs since the mid-1800s, and this has led to rising temperatures and other changes in our earth and climate.



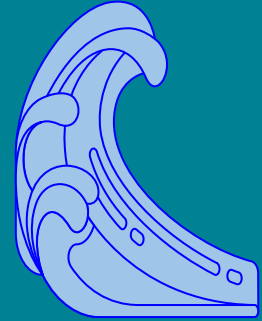
Sources of Emissions



DNREC Climate
Action Plan



**Increase
frequency
and intensity
of heat
events**



**Increase in
frequency
and intensity
of rainfall**



**Sea level rise
and expansion**

Climate Change

- The planet is warming at a rate that could lead to ecological collapse and mass extinction if we do not change course.
- This warming is the result of high amounts of greenhouse gases being released into the atmosphere from a variety of sources.
- We are already seeing the impacts of climate change and need to start rethinking our cities to prepare for a warming future
- Low income communities and communities of color are the most vulnerable despite being the least responsible for the causes of climate change

Extreme Heat

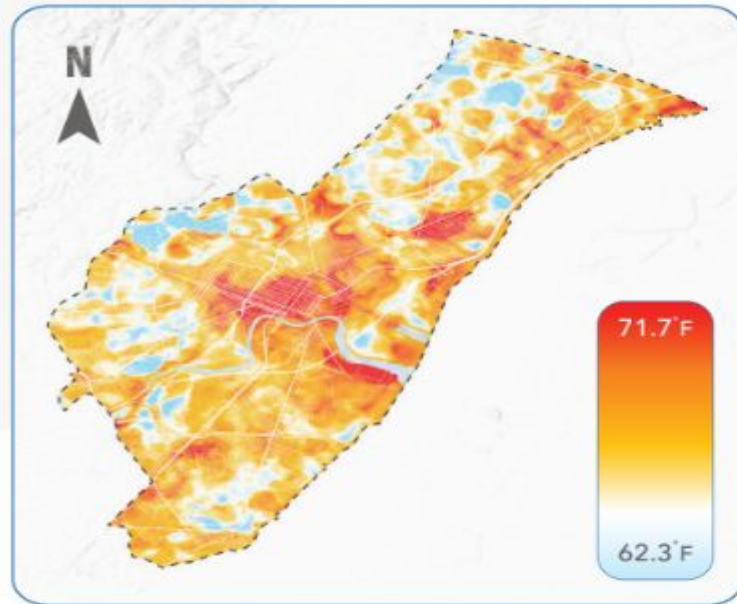
Heat waves are going to become hotter, longer, and more frequent.

Extreme Heat

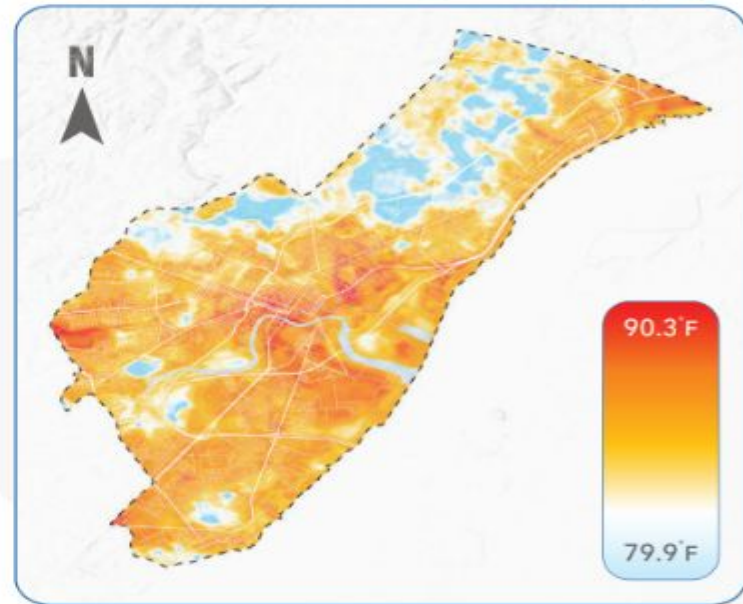
- Extreme heat is the deadliest impact of climate change and makes thousands sick every year.
- Children, outside workers, elderly, city dwellers, and people with certain medications or underlying conditions are at most risk.
- Risk is highest when heat wave hits after periods of cool
- During extreme heat events, emergency rooms see more children, more mental health episodes, and more violence.
- Households running air conditioning at the same time puts strain on electricity grid.

Extreme Heat

Morning Area-Wide Predictions (6 - 7 am)



Afternoon Area-Wide Predictions (3 - 4 pm)



Potential Paths Forward

- Utilize CDC's Heat Risk Forecast Tool and dashboard to communicate heat events effectively, enabling timely community preparedness.
- Establish a network of cooling shelters, especially for vulnerable groups like the elderly and unhoused, ensuring adequate cooling and hydration.
- Engage and fund local spaces (e.g., congregations, community centers, public libraries) to serve as cooling shelters and raise awareness about their availability.
- Collaborate with community health centers and hospitals to educate the public on heat's health impacts and train community members in first aid for heat stress.

Potential Paths Forward

- Re-assess Wilmington's tree canopy goals and prioritize tree planting in the most heat vulnerable areas
- Create care systems where citizens are encouraged to check on their neighbors during extreme heat events
- Invest in programs including weatherization, white roofs, native plant landscaping, and increasing access to air conditioning
- Subsidy programs for summer electricity bills
- Increase access to clean water
- Create an Extreme Heat Response Plan

We need education, collaboration, and policy measures in order to minimize illness and fatality as a result of extreme heat.

Special Thanks To:

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Shweta Arya

Jamila Davey



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Thank You!!!

Marissa McClenton

Environmental Justice Associate Organizer

marissa.mcclenton@sierraclub.org