

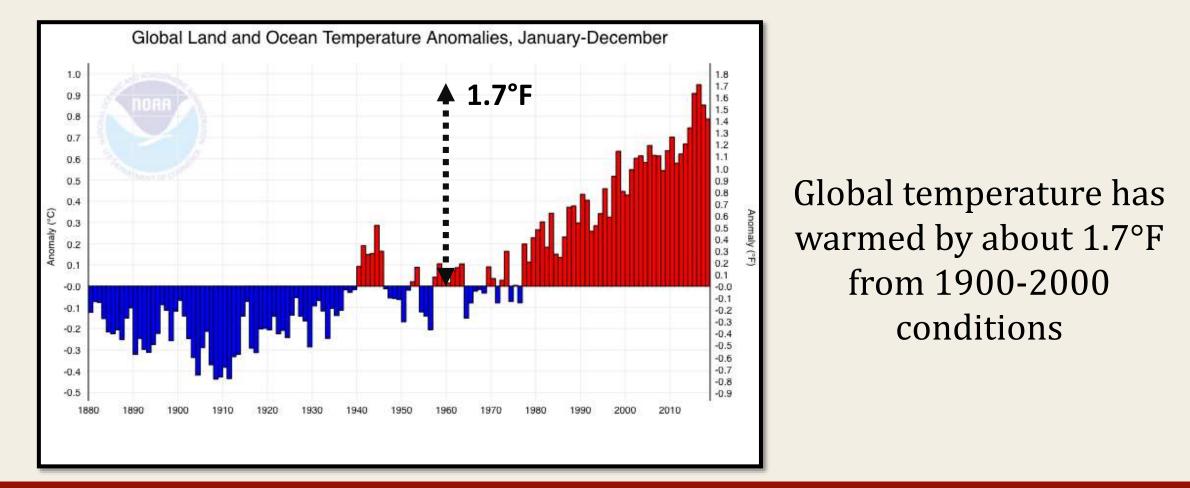
Climate Change in Wisconsin

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<u>THREE THINGS WE KNOW ABOUT</u> <u>CLIMATE CHANGE</u>

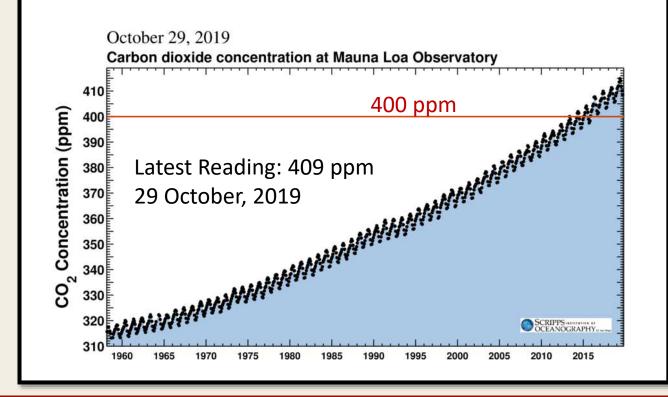
1. The world is warming.



NOAA: https://www.ncdc.noaa.gov/cag/time-series/global/globe/land_ocean/ytd/12/1880-2016

2. Carbon Dioxide is increasing (it's us).

CO₂ and greenhouse gasses are increasing due to human emissions



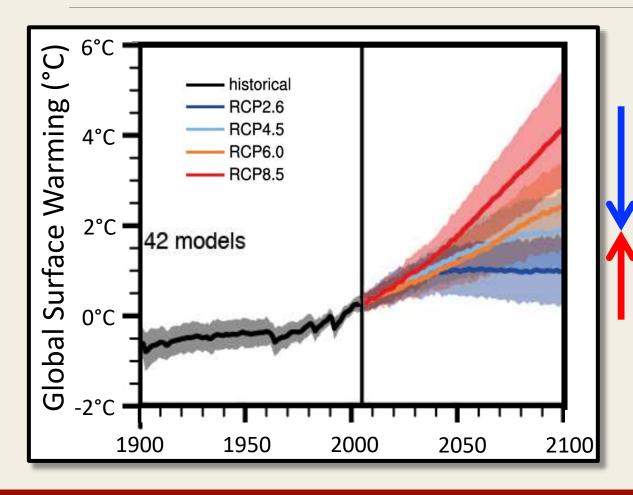


Greenhouse Gasses: "Trap" energy in lower atmosphere

Anthropogenic: Caused by human activity

https://scripps.ucsd.edu/programs/keelingcurve/

3. Action is needed now



Mitigation:

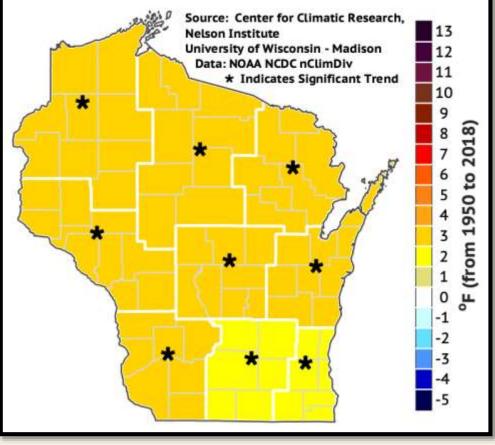
Avoids "dangerous" amounts of climate change

Adaptation: Some climate change is inevitable Adaptation needed to minimize impacts

CLIMATE CHANGE IN WISCONSIN

How is Wisconsin's CLIMATE CHANGING?

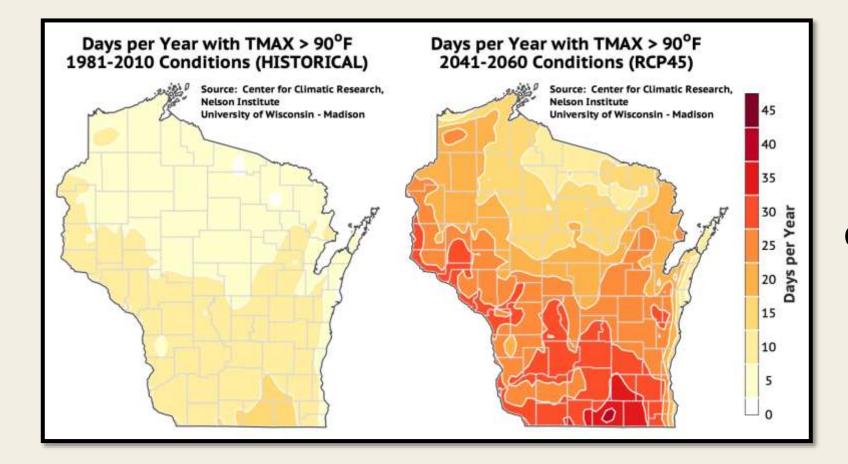
Historical Change in Annual TMEAN from 1950 to 2018



Wisconsin has warmed about 2-3°F since 1950.

(Wisconsin will warm by another 2-8°F by 2050)

What are the POTENTIAL IMPACTS?

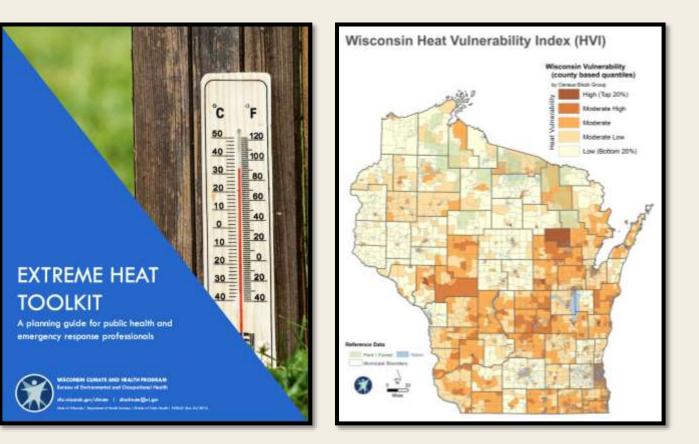


Frequency of extreme heat triples by mid-century

What are Wisconsin's possible ADAPTATION STRATEGIES?

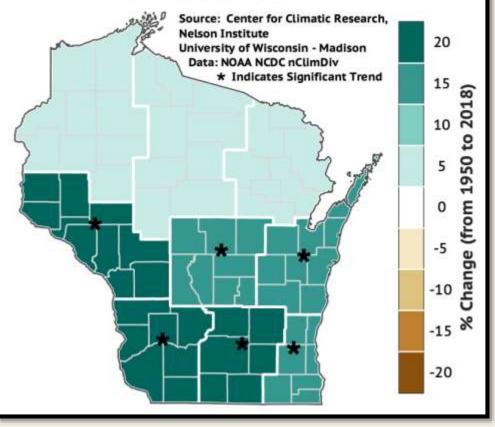
DHS Building Resilience Against Climate Effects (BRACE):

- Environmental health
- Toolkits
- Vulnerability Indices



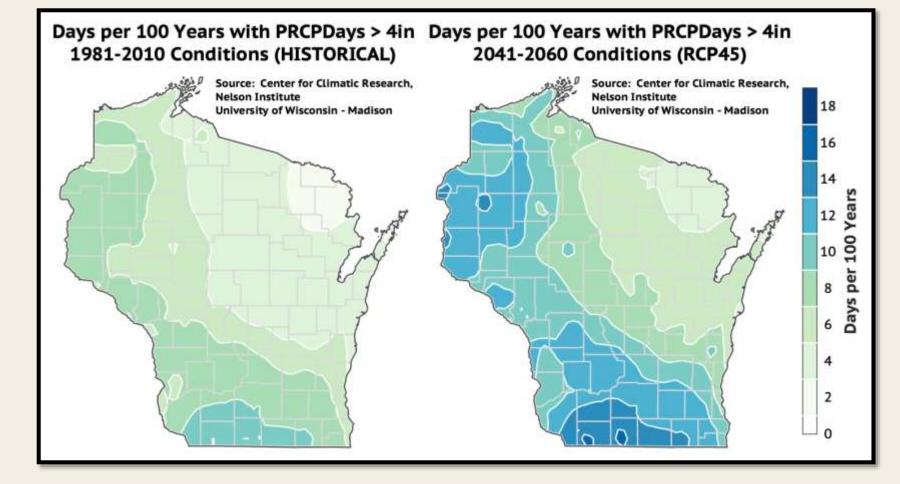
How is Wisconsin's CLIMATE CHANGING?

Historical Change in Annual PRECIP (%) from 1950 to 2018



Wisconsin has become 10-20% wetter since 1950. (Precipitation will likely increase by 2050 especially winter / spring)

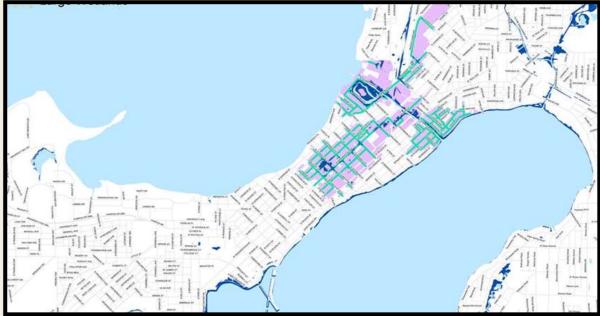
What are the POTENTIAL IMPACTS?



Increased frequency of extreme precipitation

What are Wisconsin's possible ADAPTATION STRATEGIES?





Model Simulation, 2014

Isthmus Flooding, September, 2018

https://toolkit.climate.gov/case-studies/using-demonstration-storms-prepare-extreme-rainfall

Climate Change: What we know

Climate change is happening
Climate is warming due to human emissions

- There is no "going back"
 We need to stop the warming, and prepare for coming changes
- > Action is needed NOW

Both mitigation AND adaptation are needed!

> Everyone can do something!

Climate affects all of us in specific ways. And, all of us contribute in specific ways. We can all be part of a solution.





The Wisconsin Initiative on Climate Change Impacts ENABLING CLIMATE ADAPTATION IN WISCONSIN

http://www.wicci.wisc.edu