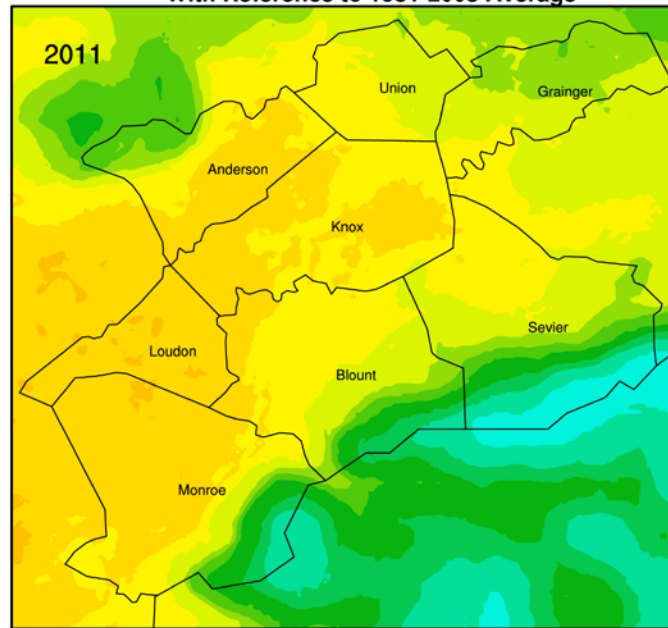


Change in Days Above 95

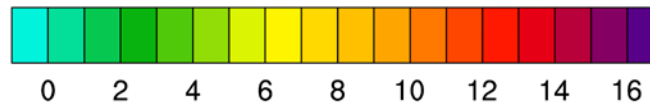
1981-2005 Reference Average (Source: ORNL)

Change in Days with Daily Max Temperature Above 95F

With Reference to 1981-2005 Average



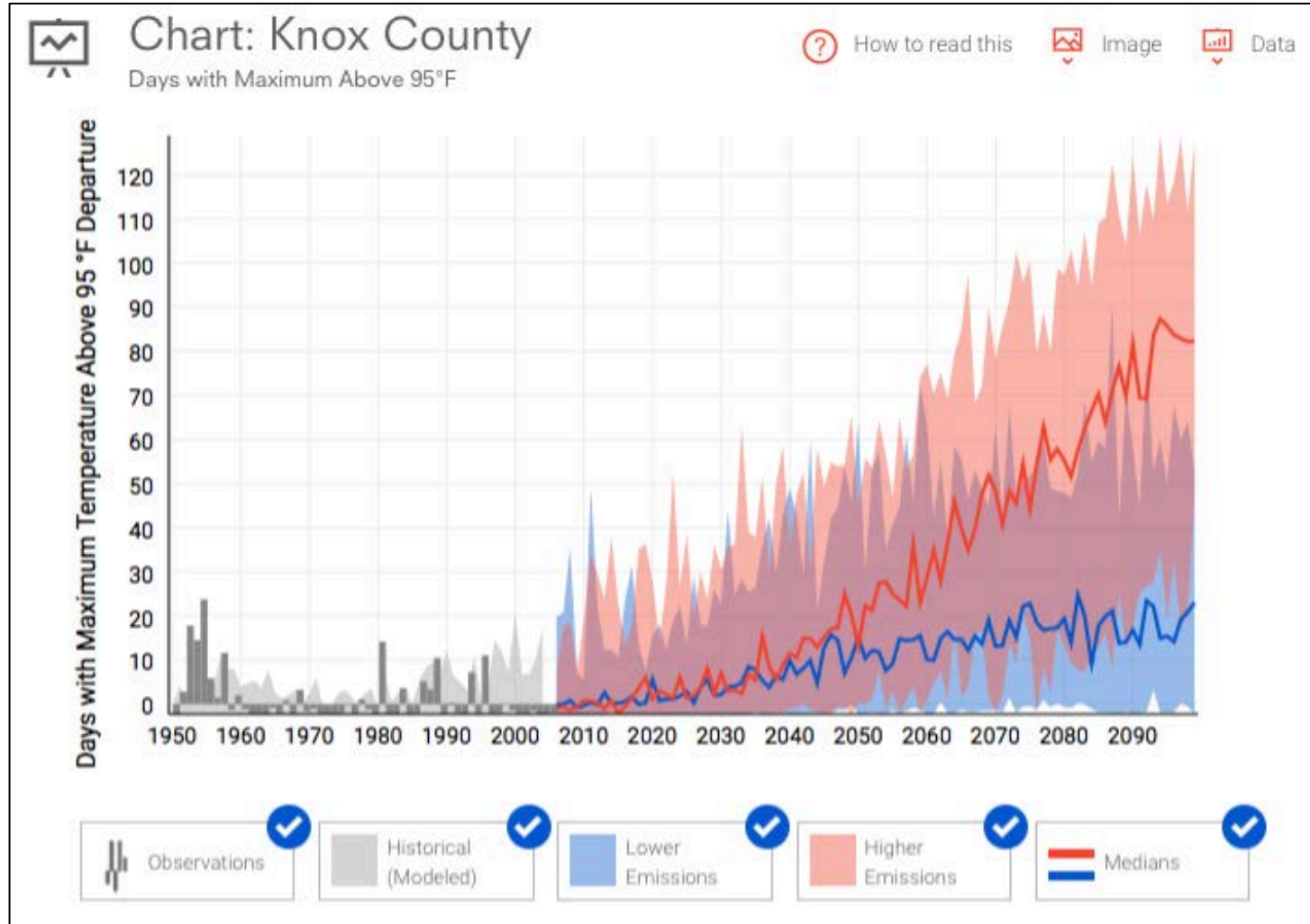
Number of Days



Days With Maximum Temp Above 95°F

By 2100: Worst Case: ~80 more days (mean) Best Case: ~20 more days (mean)

Source: NOAA Climate Explorer (20 models)



Change in Cooling Degree Days

Energy Demand on Air Conditioning

Source: NOAA Climate Explorer (33 models)



Chart: Knox County

Cooling Degree Days



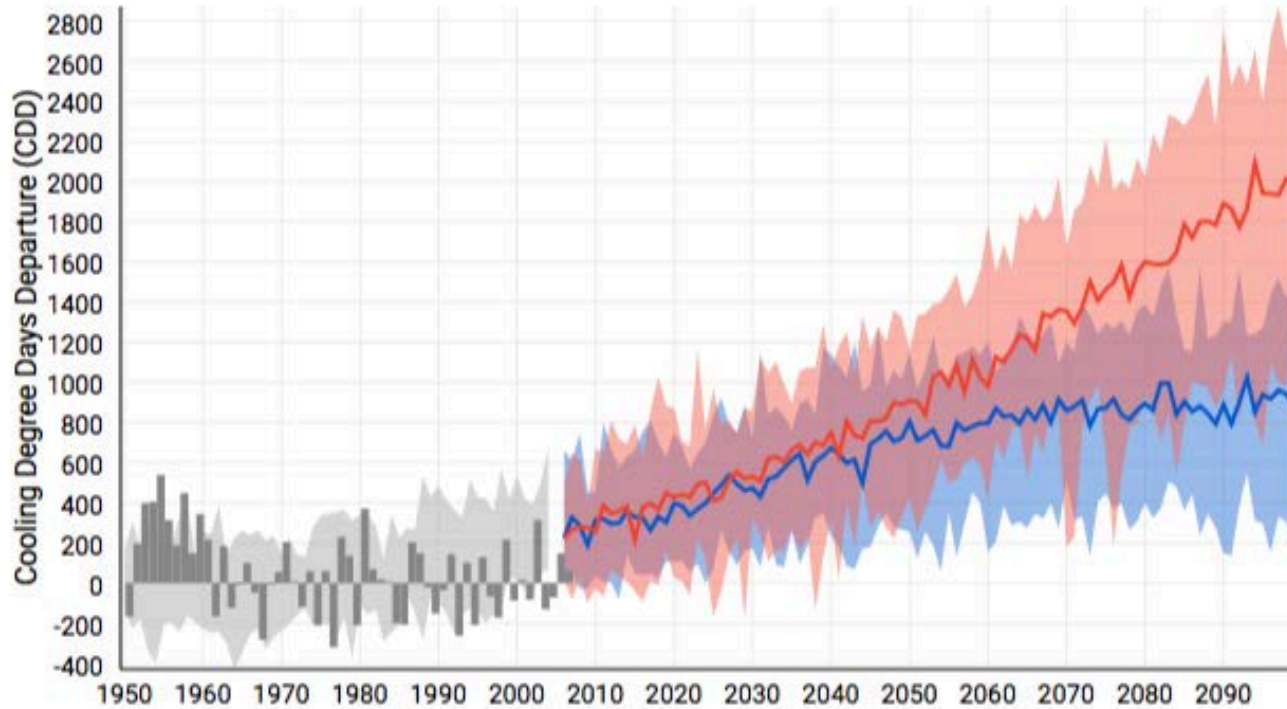
How to read this



Image



Data



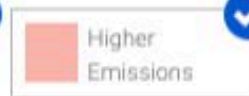
Observations



Historical (Modeled)



Lower Emissions



Higher Emissions



Medians



Days With Minimum Temp Below 32°F

By 2100: Worst Case: ~55 fewer days (mean) Best Case: ~30 fewer days (mean)

Source: NOAA Climate Explorer (20 models)



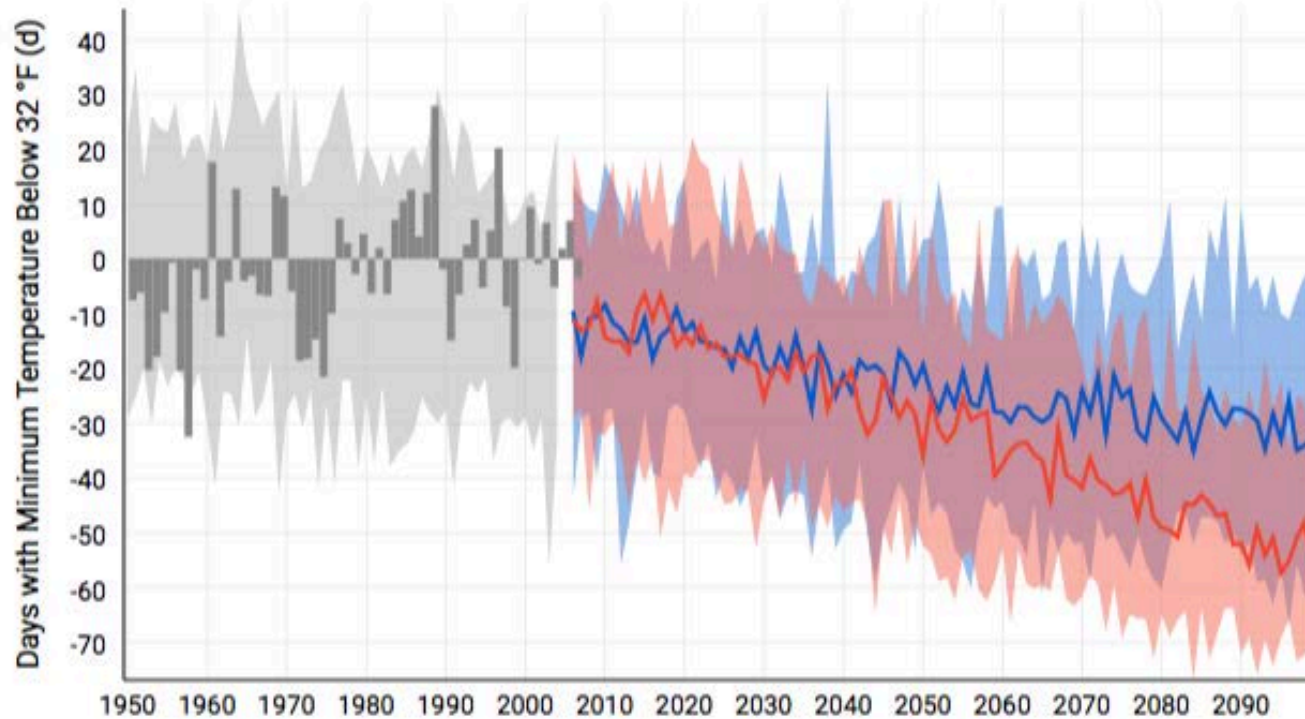
Chart: Knox County

Days with Minimum Below 32°F

[How to read this](#)

[Image](#)

[Data](#)



- Observations ✓
- Historical (Modeled) ✓
- Lower Emissions ✓
- Higher Emissions ✓
- Medians ✓

Change in Heating Degree Days

Energy Demand for Heating

Source: NOAA Climate Explorer (33 models)



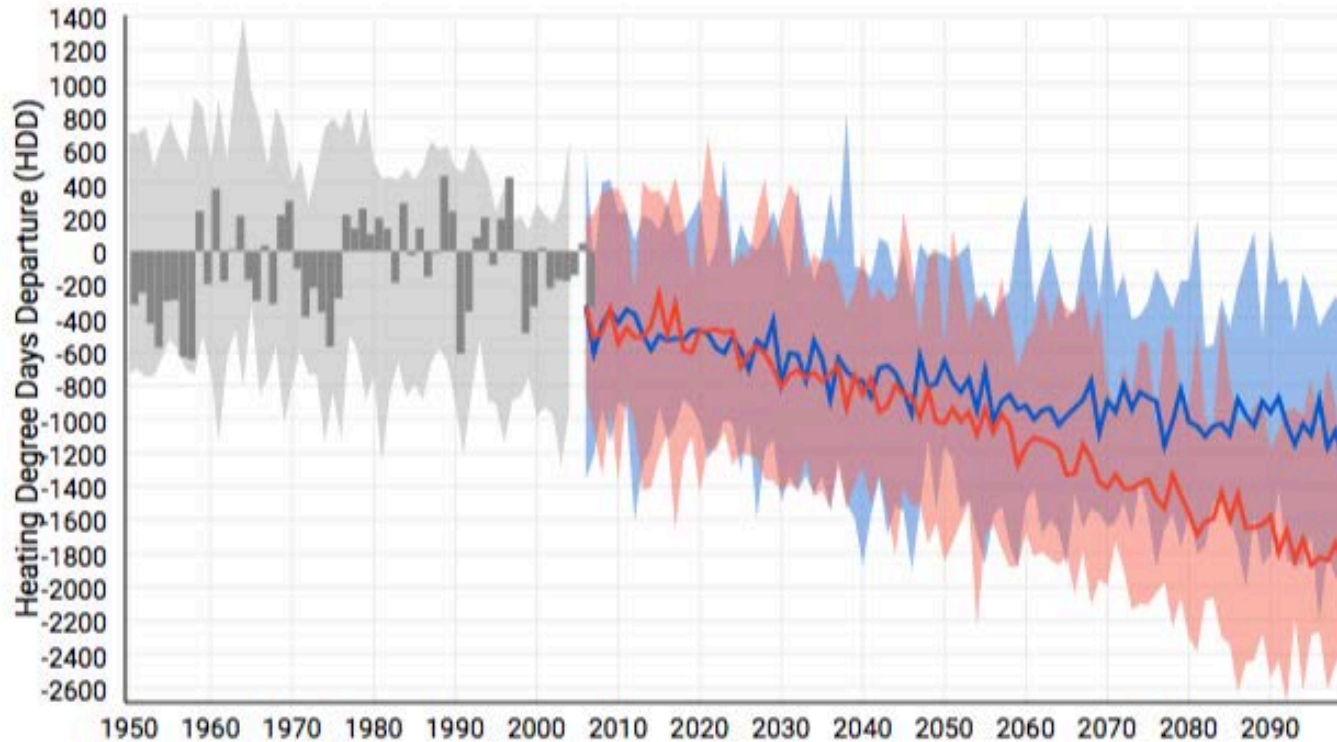
Chart: Knox County

Heating Degree Days

How to read this

Image

Data



Observations

Historical (Modeled)

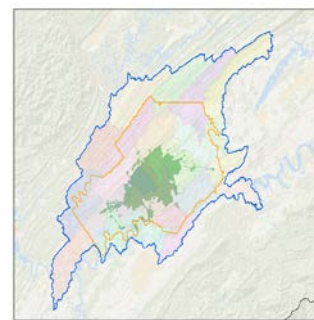
Lower Emissions

Higher Emissions

Medians



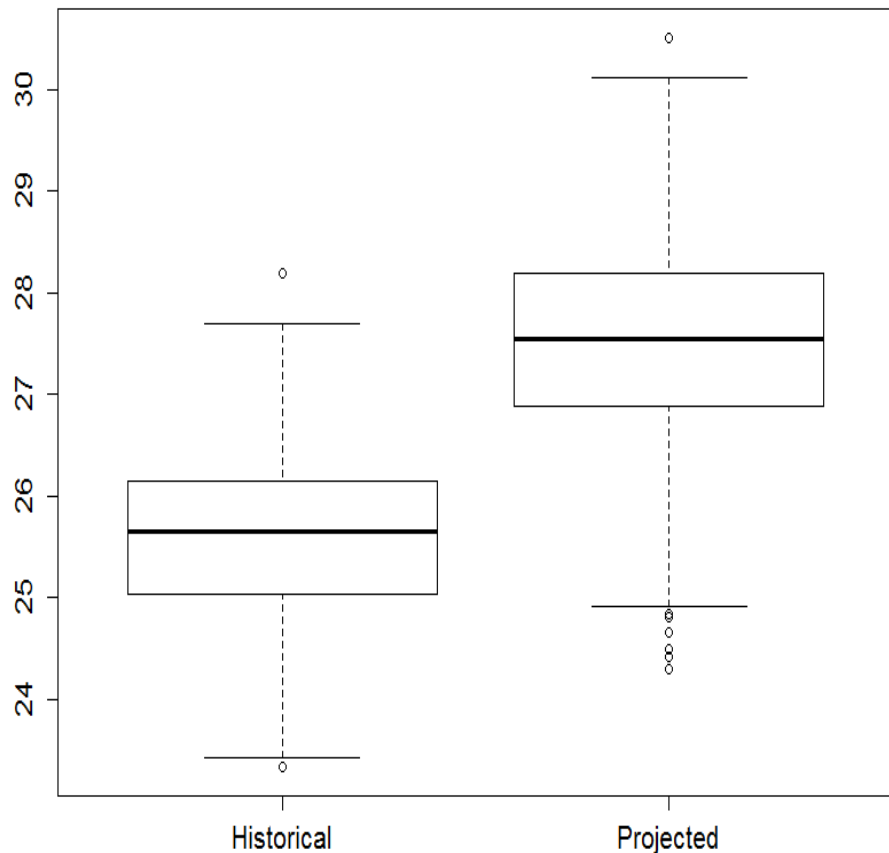
Average Annual Maximum Number of Consecutive Days



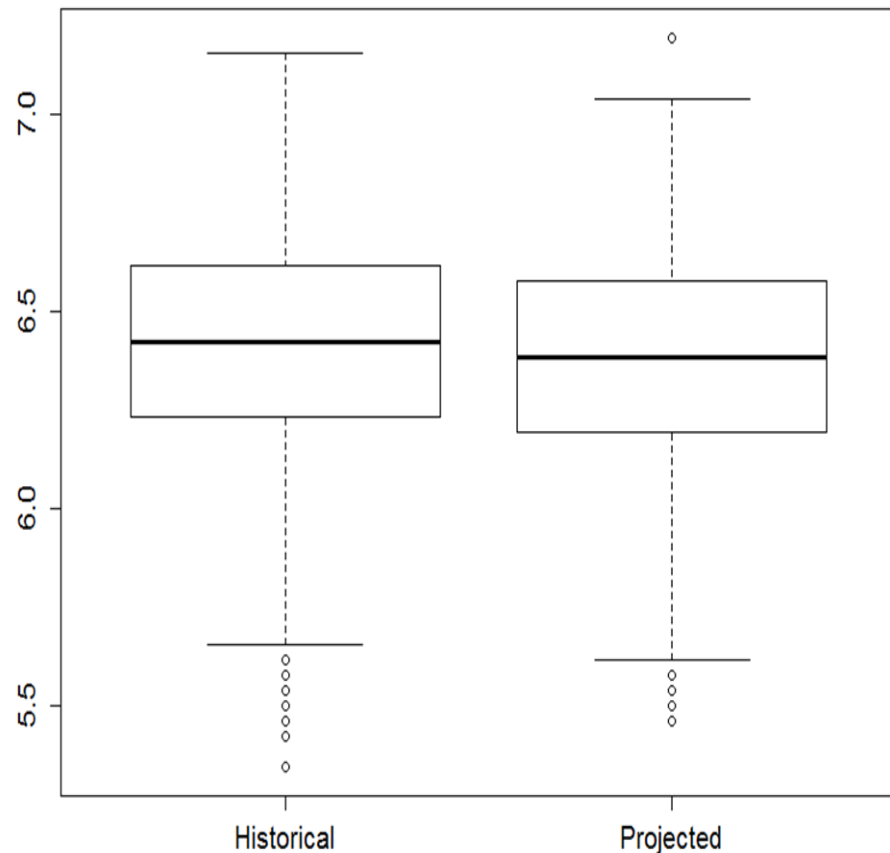
HUC12 watershed
coverage
Knox County

Consecutive Number of **Dry** Days

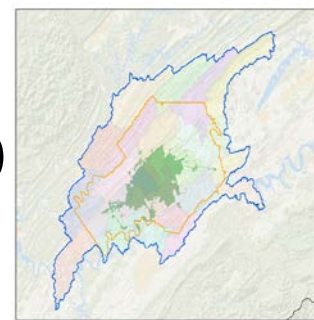
Maximum Number of Consecutive Dry Days (Precipitation < 2.5mm)



Consecutive Number of **Wet** Days

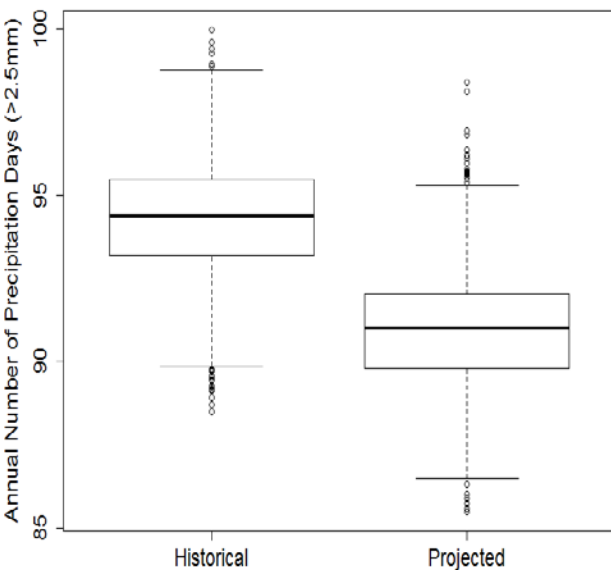


Annual Number of Precipitation Days

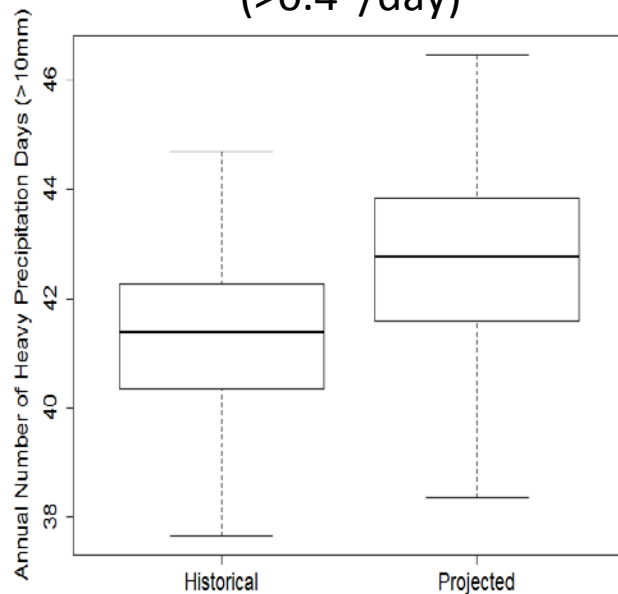


HUC12 watershed
coverage
Knox County

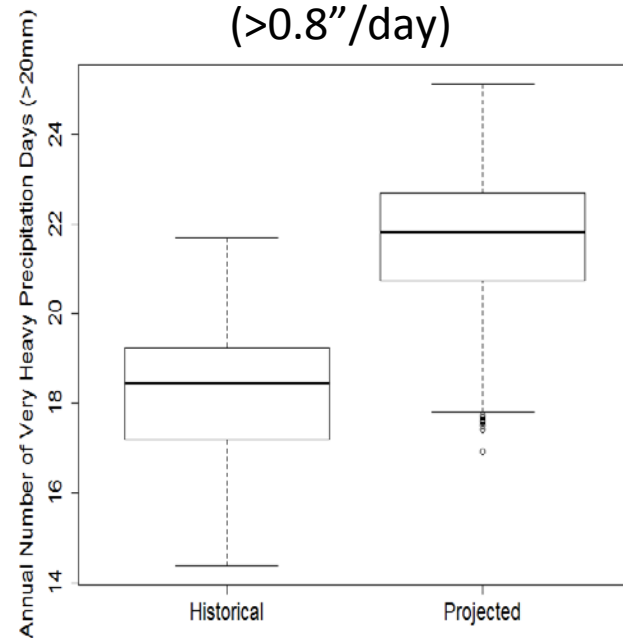
All Precipitation Days ($>0.1''/\text{day}$)



Heavy Precipitation Days ($>0.4''/\text{day}$)



Very Heavy Precipitation Days ($>0.8''/\text{day}$)

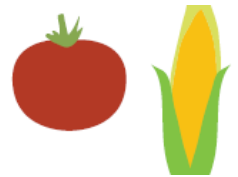


Climate Change Impacts by Sector

Positive and Negative

Warmer and Wetter Summer

- Heat-related health and infrastructure impacts
- Increased extreme weather events (floods, tornadoes, etc.).
- Reduced labor productivity
- Increased energy use and utility costs
- Increased allergens and pollutants (including ozone)
- More frequent days above air quality regulatory levels
- Increased and new pest populations
- Unwanted spread of non-native species
- Reduced agricultural productivity



Warmer and Wetter Winter

- Increased extreme weather events (ice, floods, etc.)
- Decreased energy use and utility costs
- Increased allergens and pollutants (including ozone)
- Increased and new pest populations
- Unwanted spread of non-native species

