

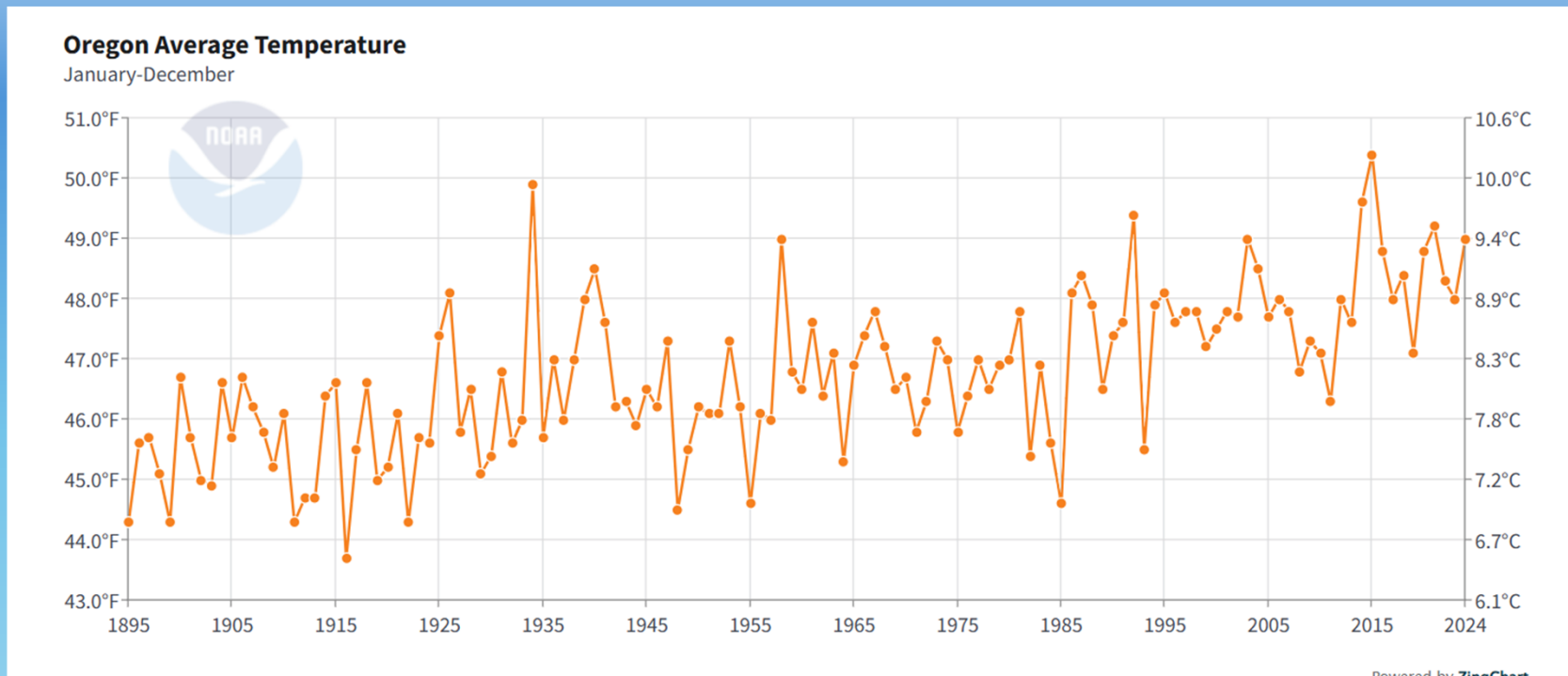
# Oregon Climate Trends and Projections

**Alan Journet**

**Cofacilitator, Southern Oregon Climate Action Now**

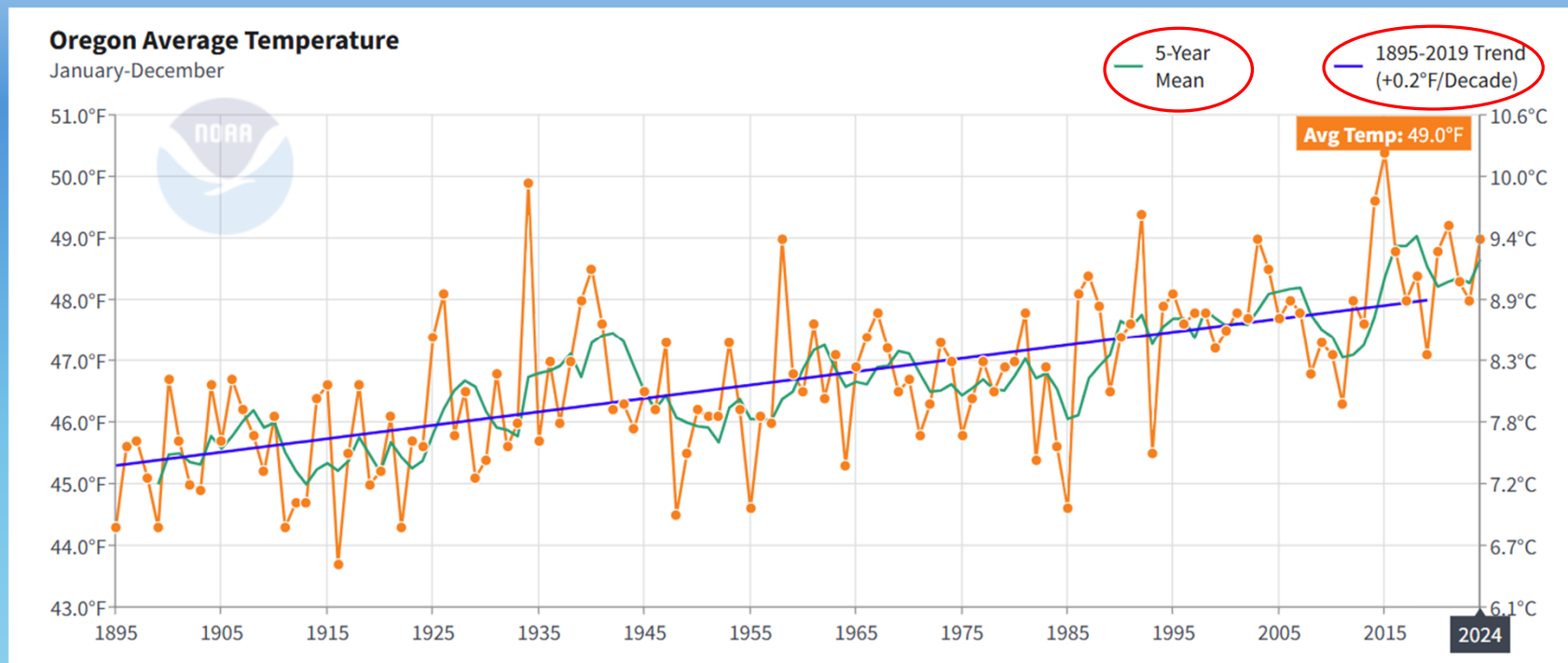
**[alan@socan.eco](mailto:alan@socan.eco); 541-301-4107**

# Oregon Historical Temperature Annual Average 1895 - 2024



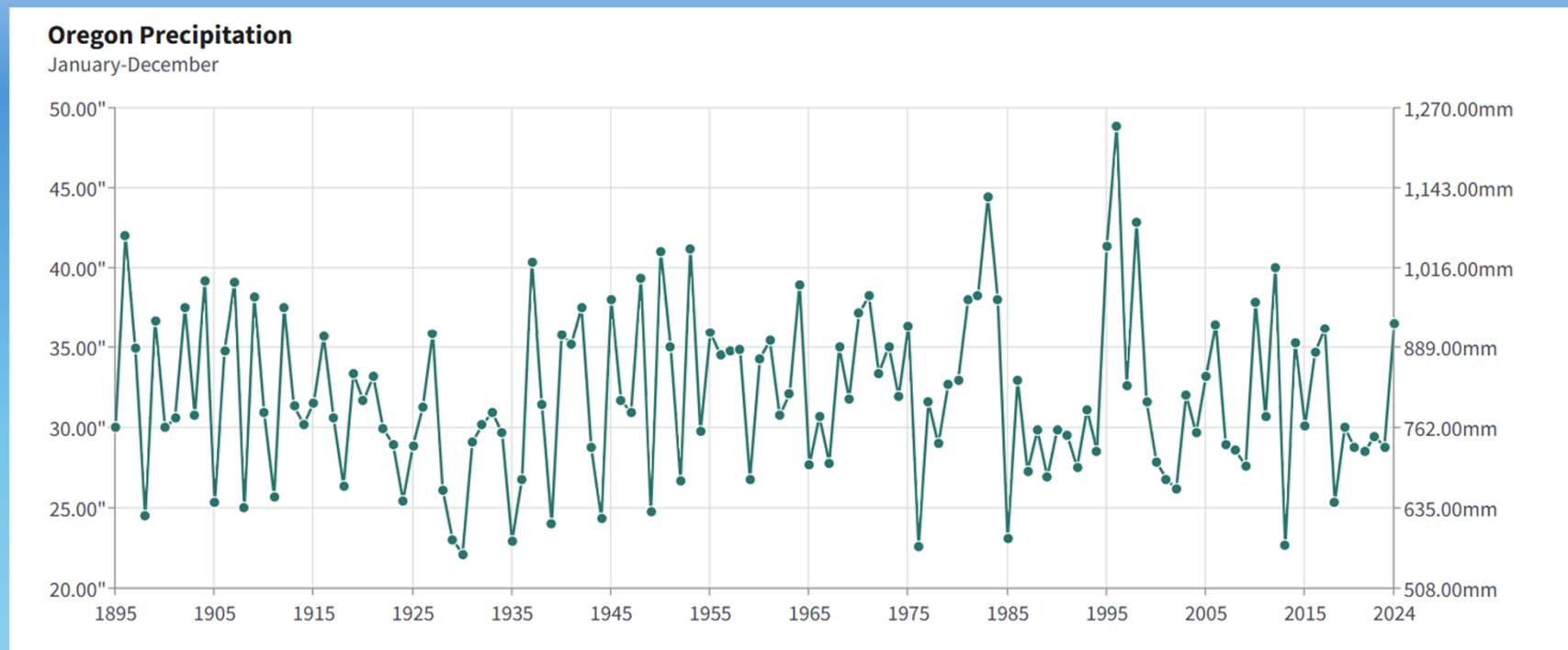
<https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/statewide/time-series/35/tavg/12/12/1895-2024>

# Oregon Historical Temperature Annual Average 1895 - 2024



<https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/statewide/time-series/35/tavg/12/12/1895-2024>

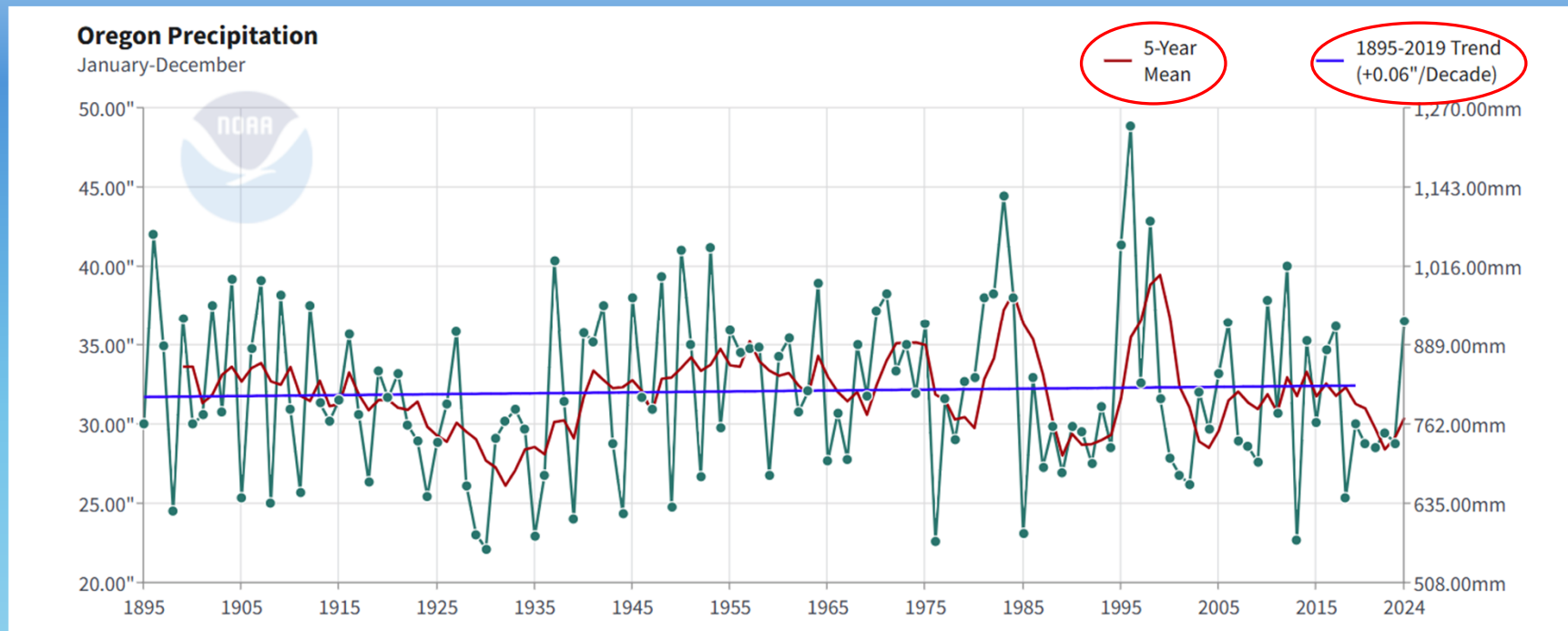
# Oregon Historical Precipitation Annual Average 1895 - 2024



<https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/statewide/time-series/35/pcp/12/12/1895-2024>



# Oregon Historical Precipitation Annual Average 1895 - 2024



<https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/statewide/time-series/35/pcp/12/12/1895-2024>

1/15/2026

Engineers for a Sustainable Future - Oregon Climate

5

# Intergovernmental Panel on Climate Change - IPCC Model Scenarios (Predictions vs Projections)

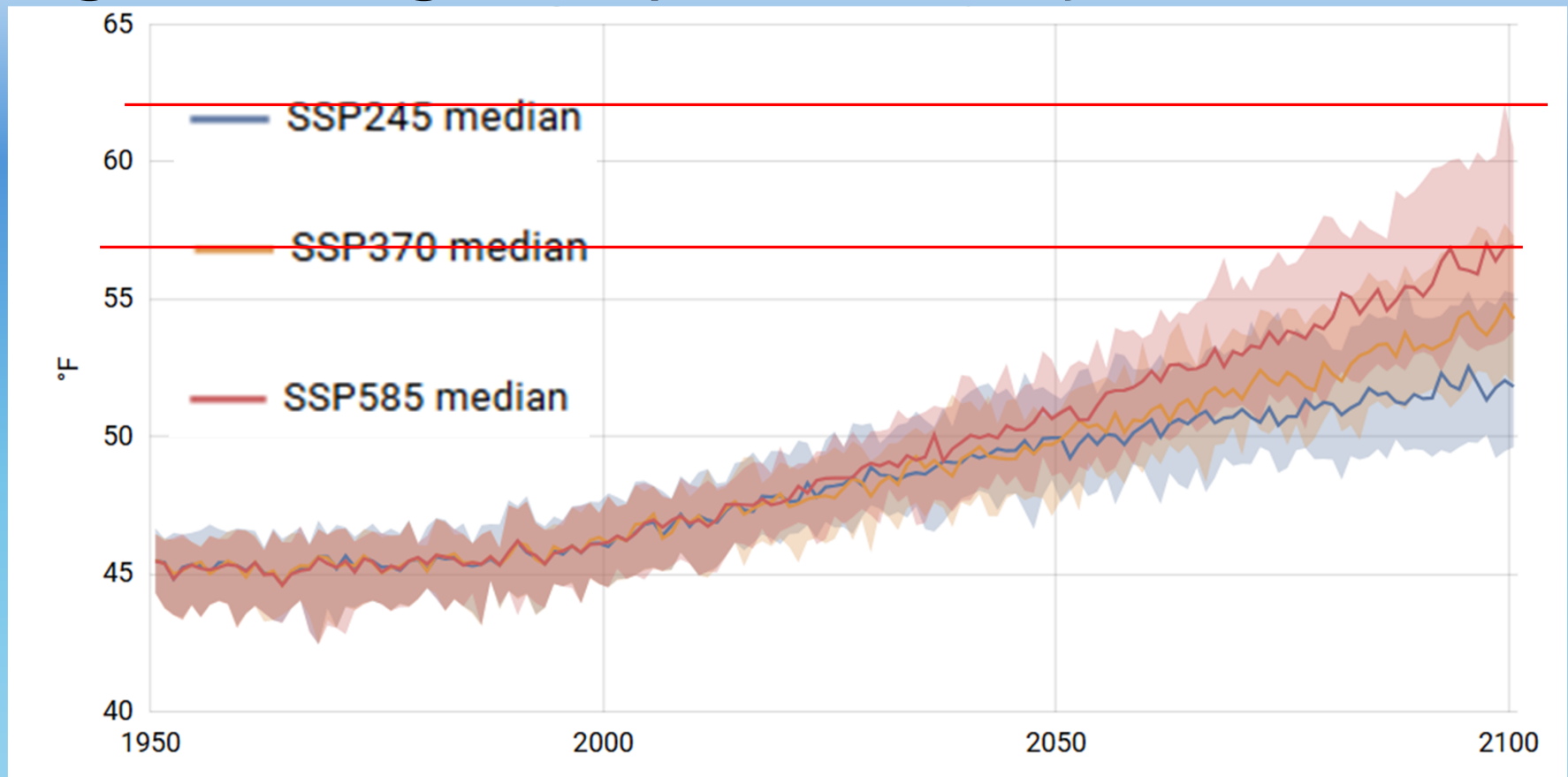
## **2014 AR5: Representative Concentration Pathways (RCPs)**

## **2021 AR6: Shared Socioeconomic Pathways (SSPs)**

- RCP 2.6 Low level emissions (almost immediate cessation) **SSP1-2.6**
- RCP 4.5 Ambitious reductions in emissions trajectory **SSP2-4.5**
- RCP 6.0 Less ambitious emissions reduction trajectory **SSP4-6.0**
- RCP 8.5 Rapid increase in emissions – **SSP5-8.5**  
‘Worst Case Scenario’ → ‘Business as Usual’

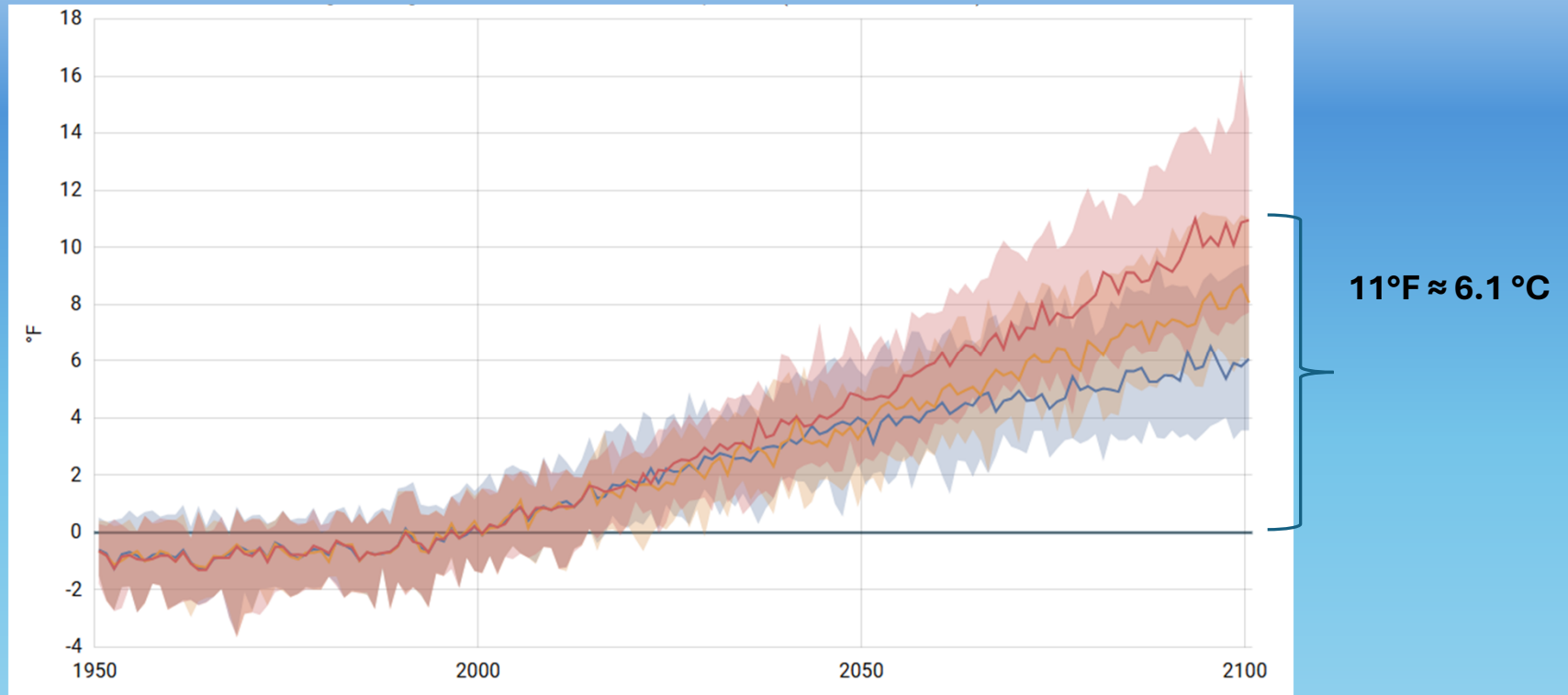
USGS Climate Change Viewer Employs 20 models

# Oregon Average Temperature Projections to 2100



[https://apps.usgs.gov/nccv/loca2/nccv2\\_loca2\\_counties.html](https://apps.usgs.gov/nccv/loca2/nccv2_loca2_counties.html)

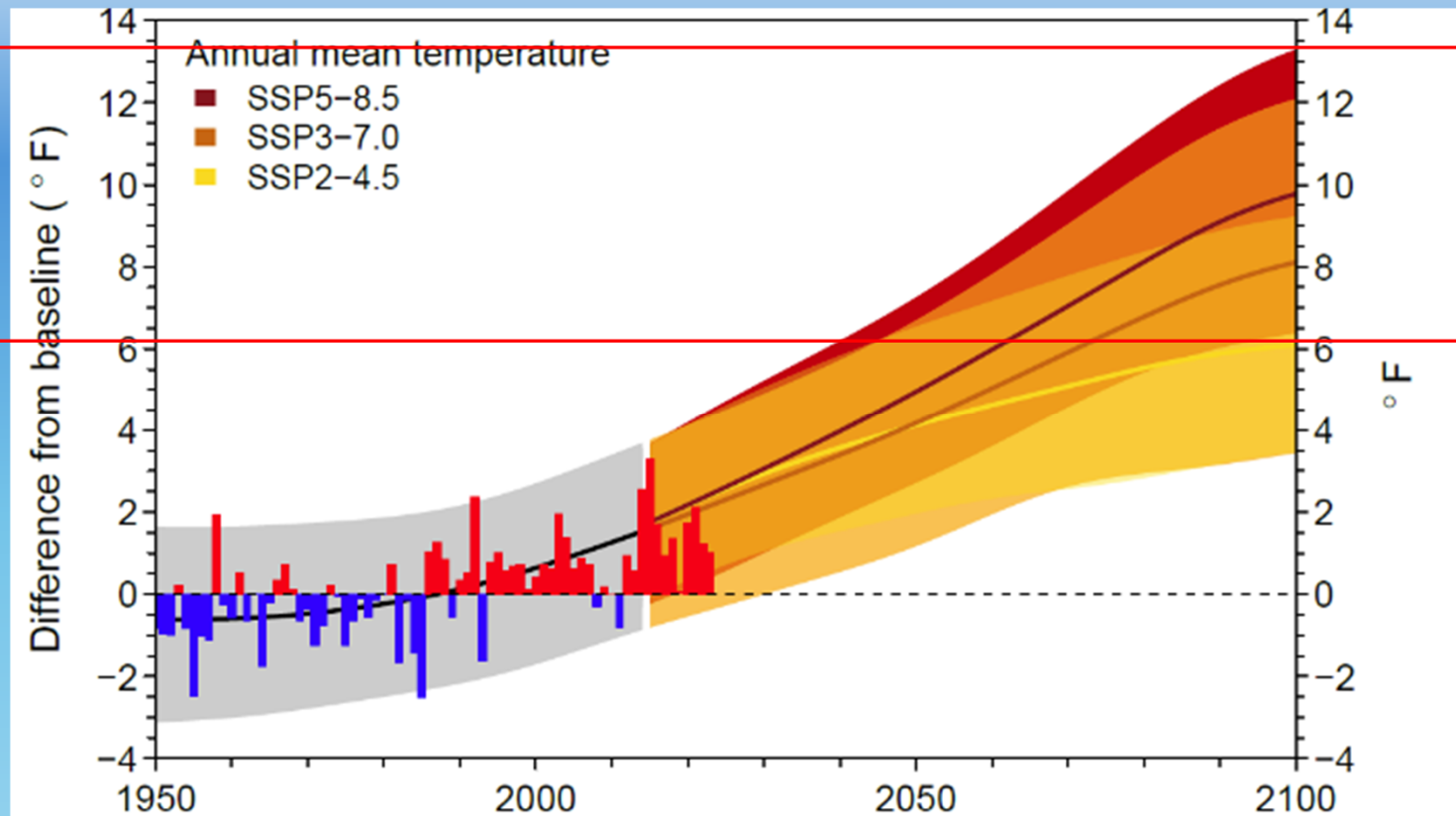
# Oregon Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010



[https://apps.usgs.gov/nccv/loca2/nccv2\\_loca2\\_counties.html](https://apps.usgs.gov/nccv/loca2/nccv2_loca2_counties.html)

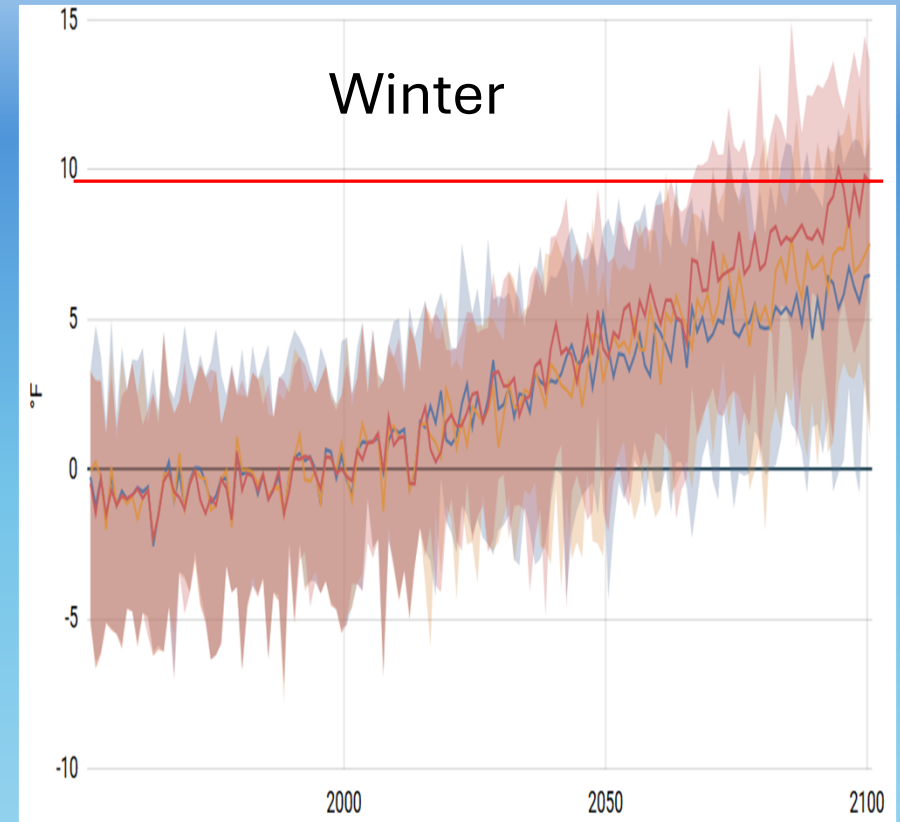
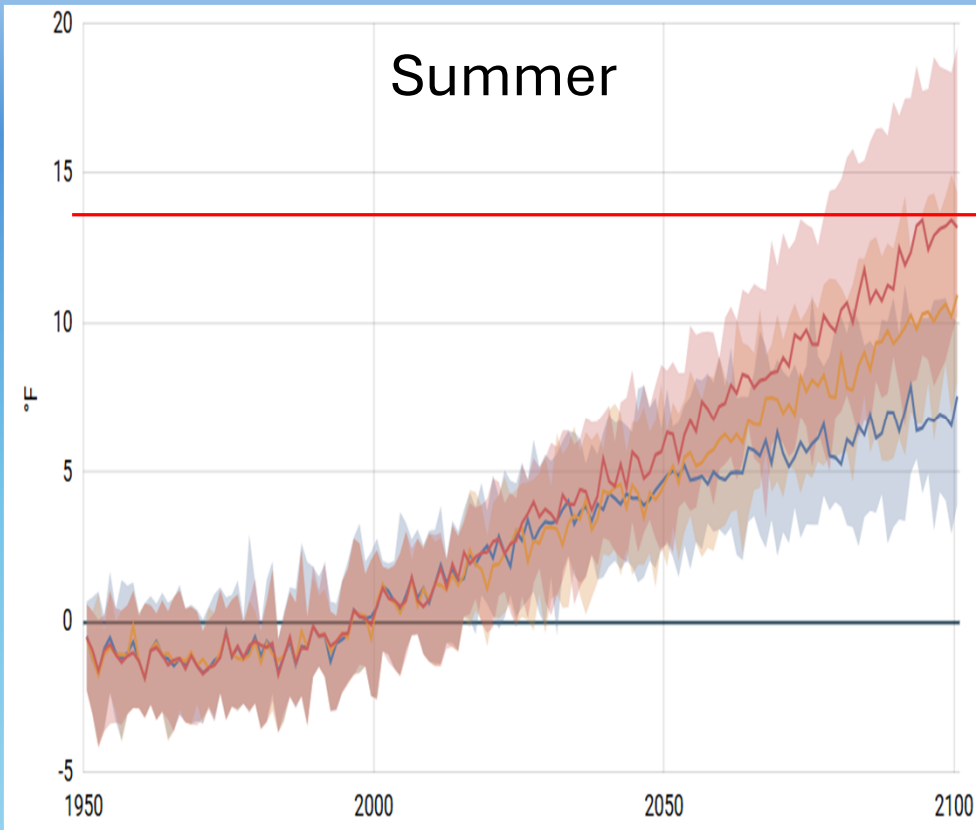


# OCCRI Projections - Baseline 1950-2014 average



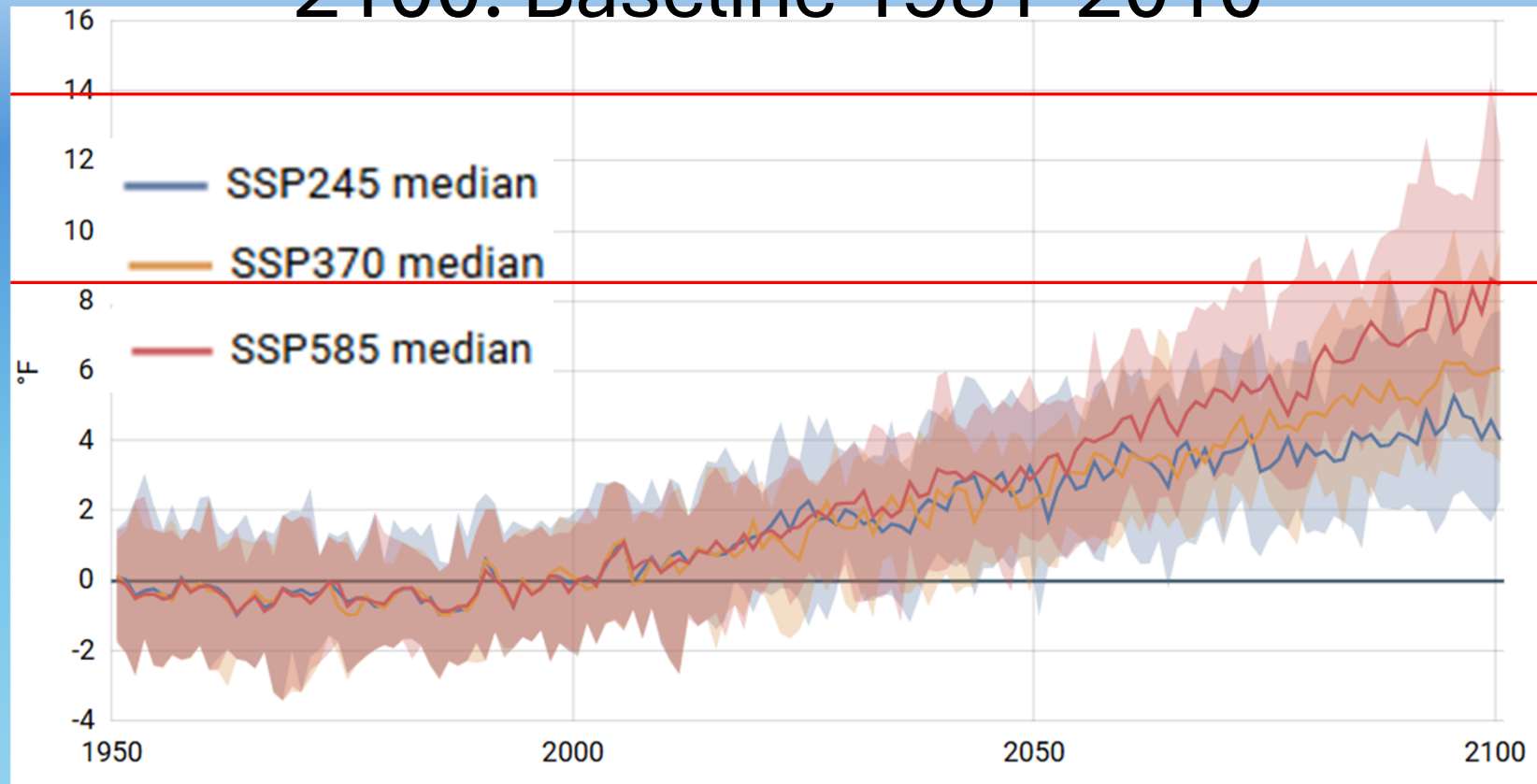
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# Summer vs Winter Projected $\Delta$ in Temperature: Baseline 1981-2010



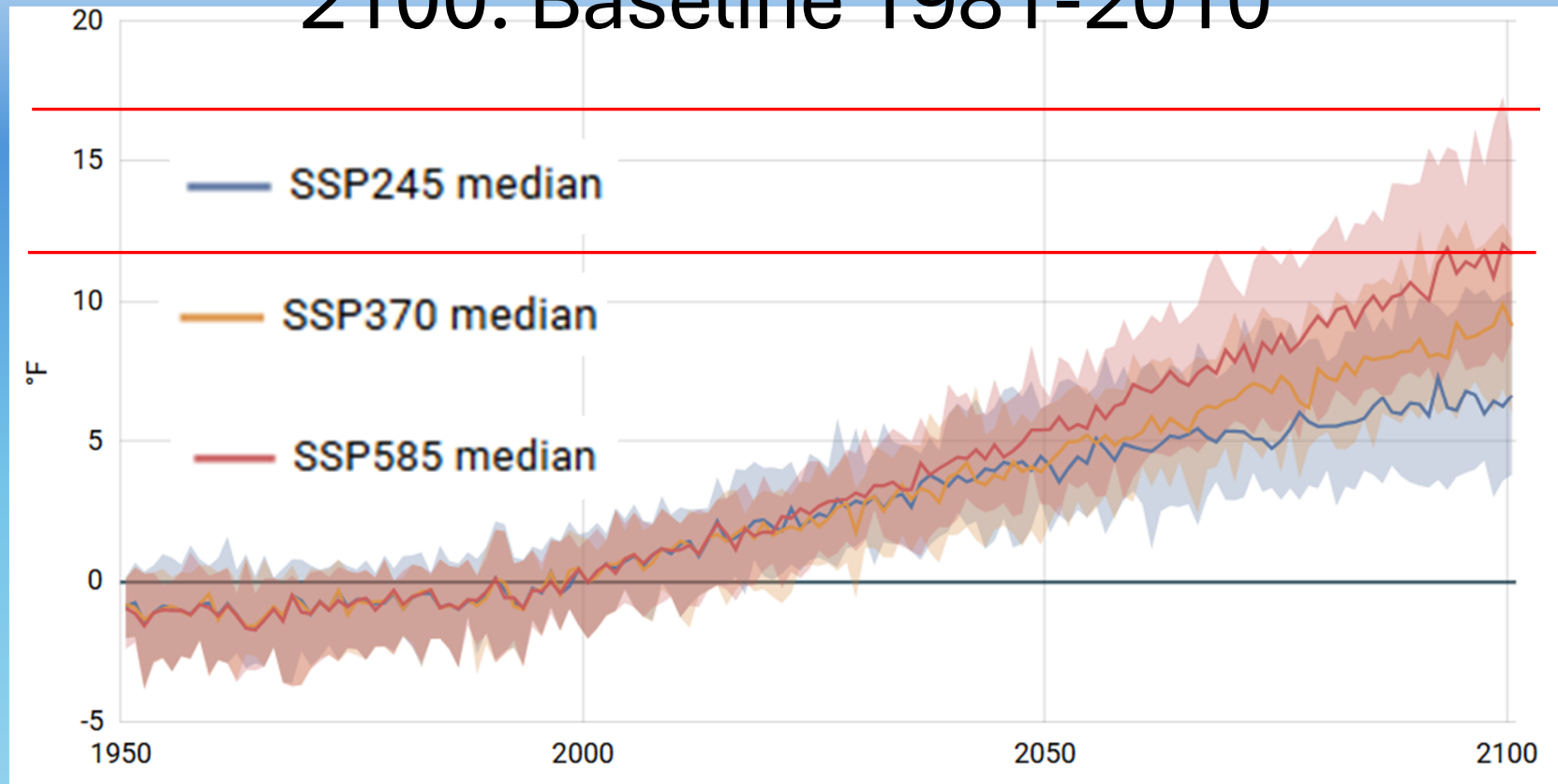
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# Curry Co. Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010



[https://apps.usgs.gov/nccv/loca2/nccv2\\_loca2\\_counties.html](https://apps.usgs.gov/nccv/loca2/nccv2_loca2_counties.html)

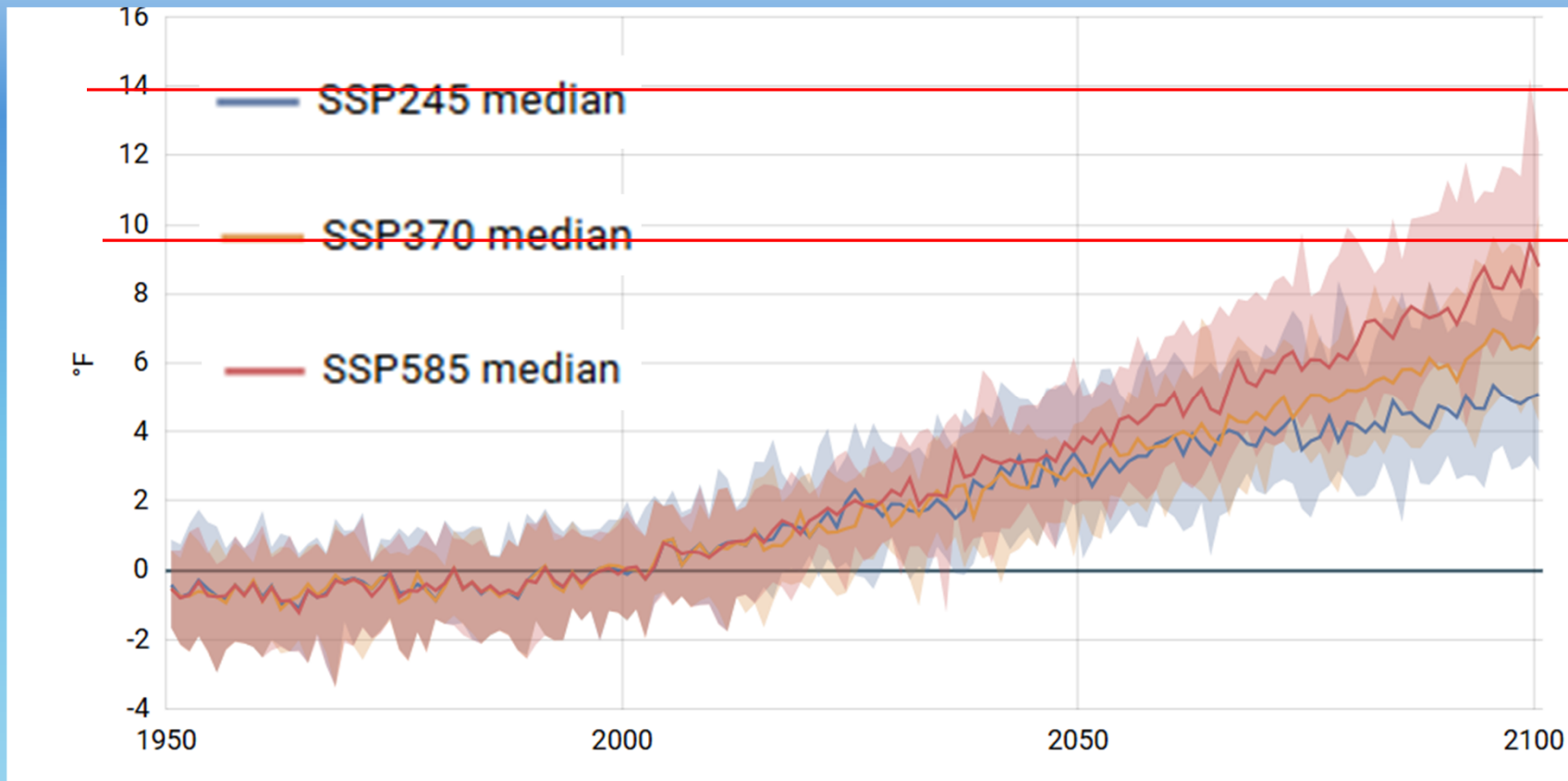
# Malheur Co. Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010



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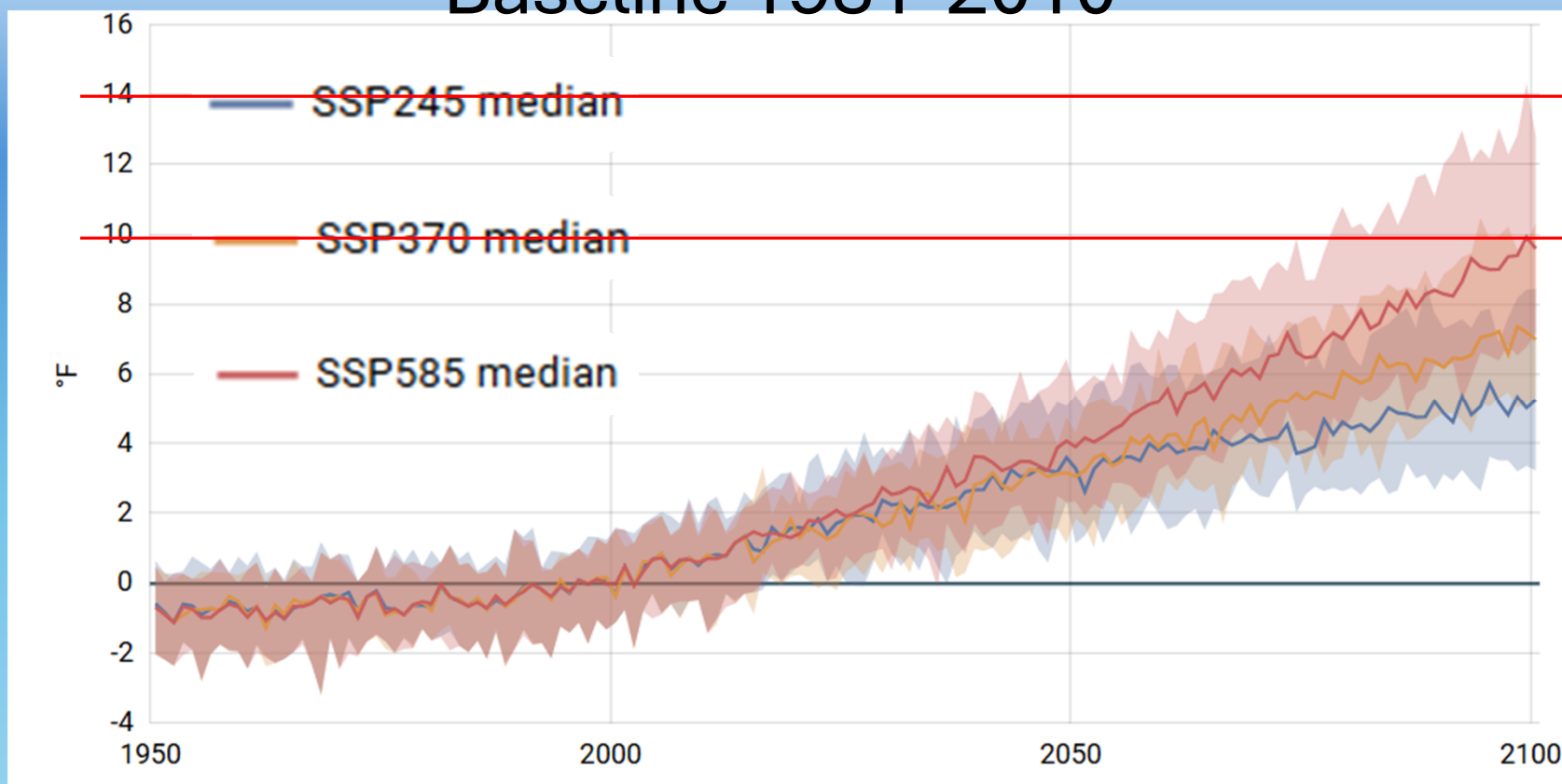


# Lincoln Co. Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010

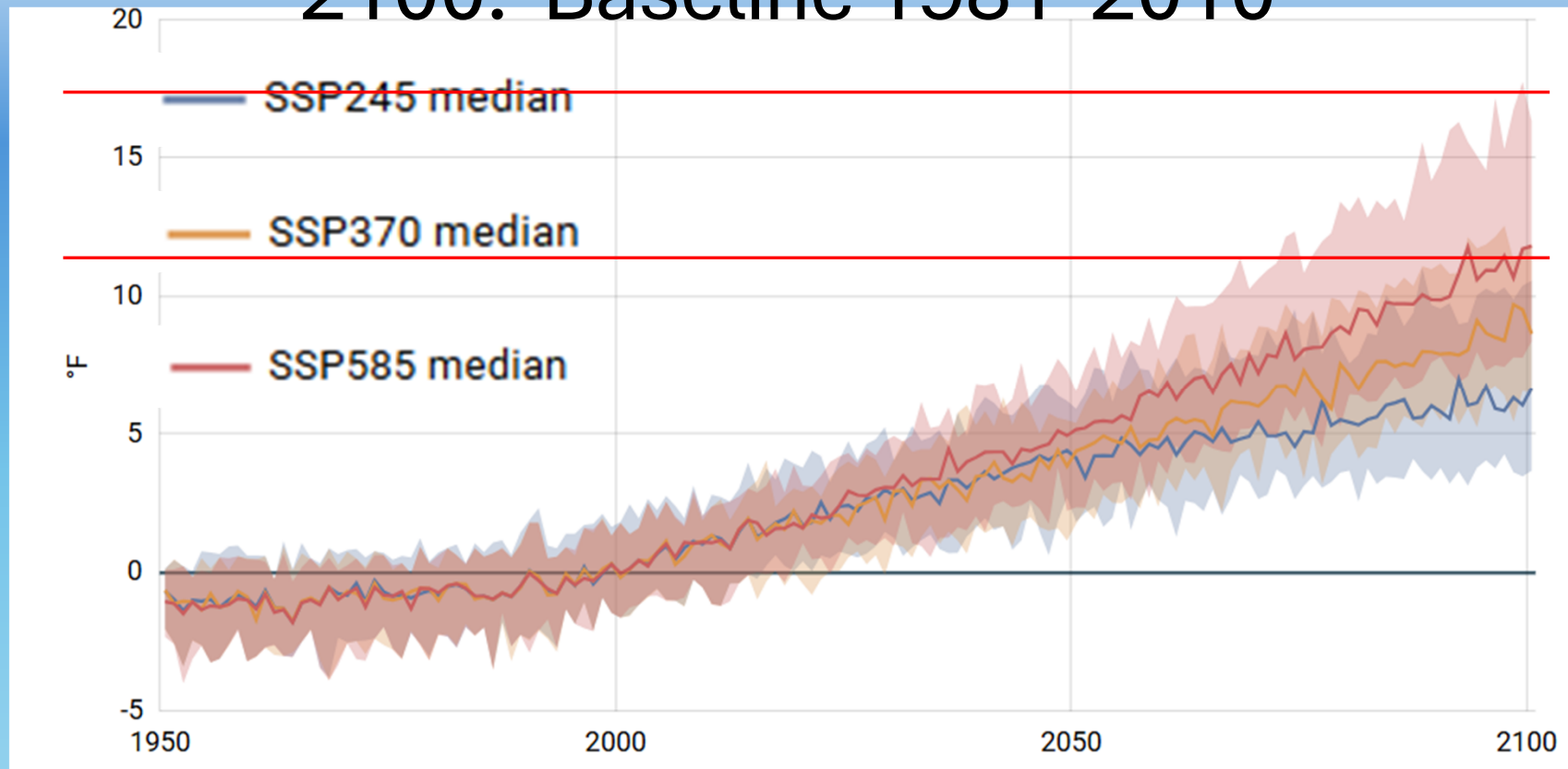


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# Marion Co. Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010

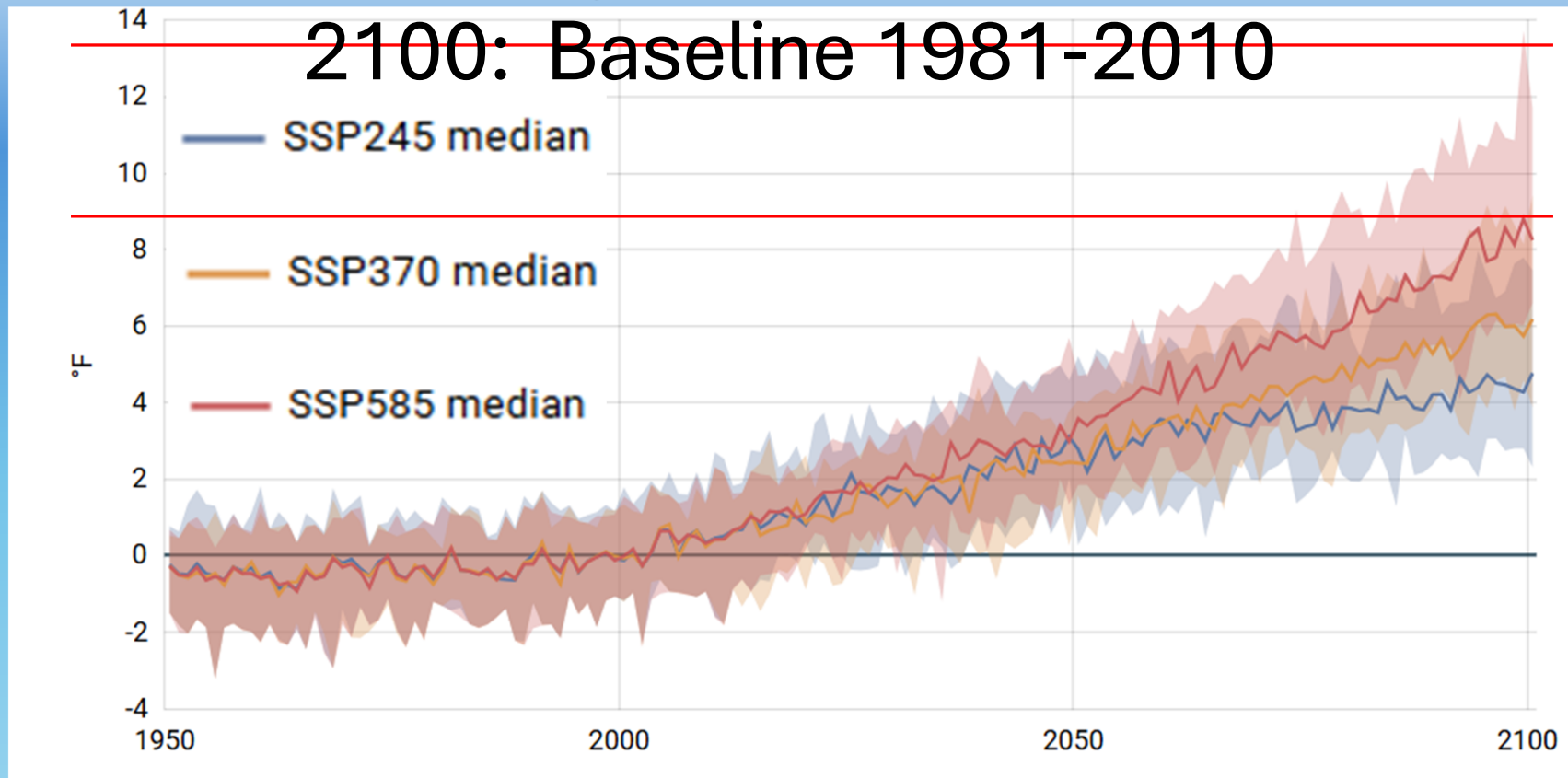


# Baker Co. Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010



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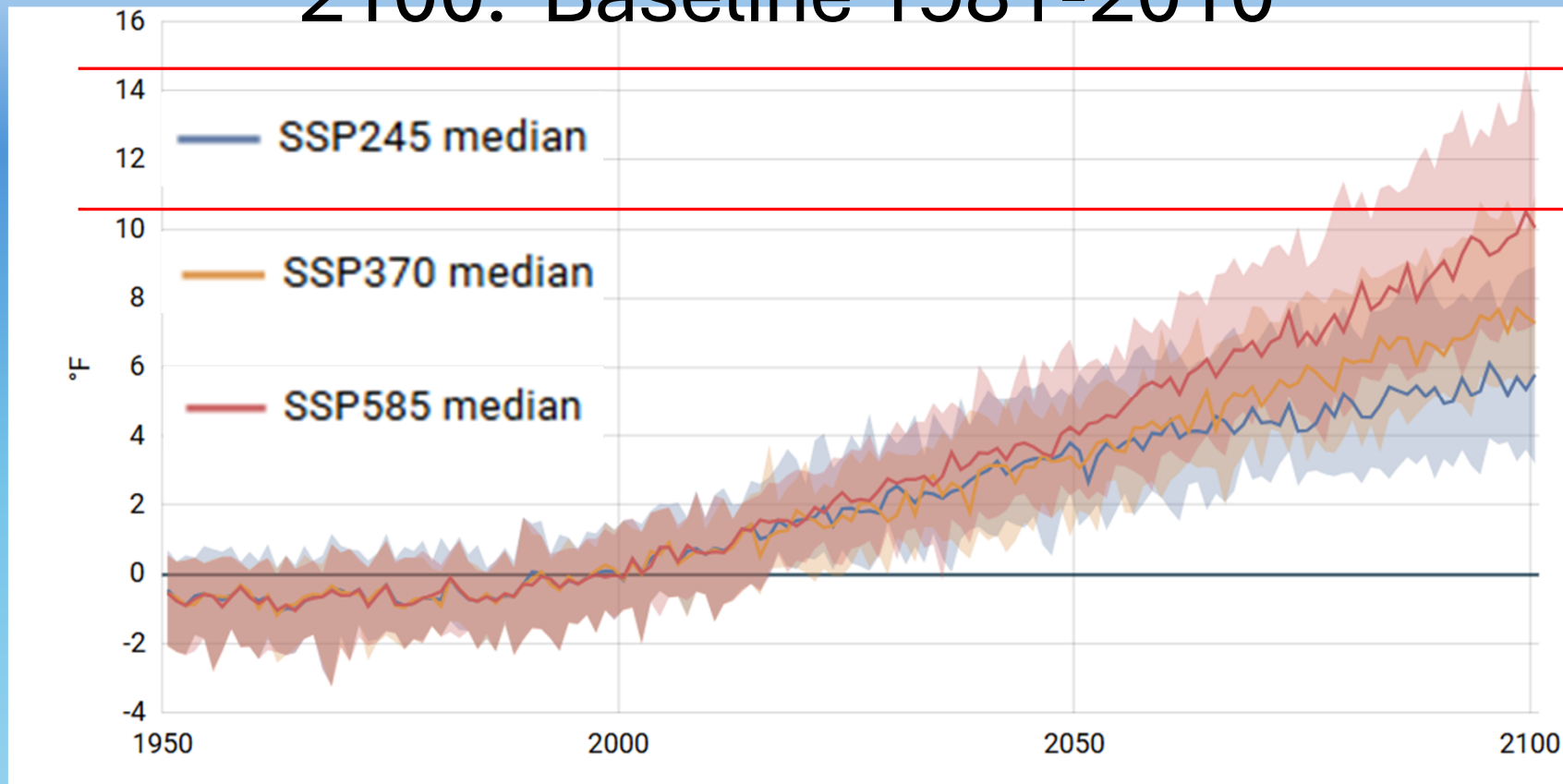
# Tillamook Co. Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010



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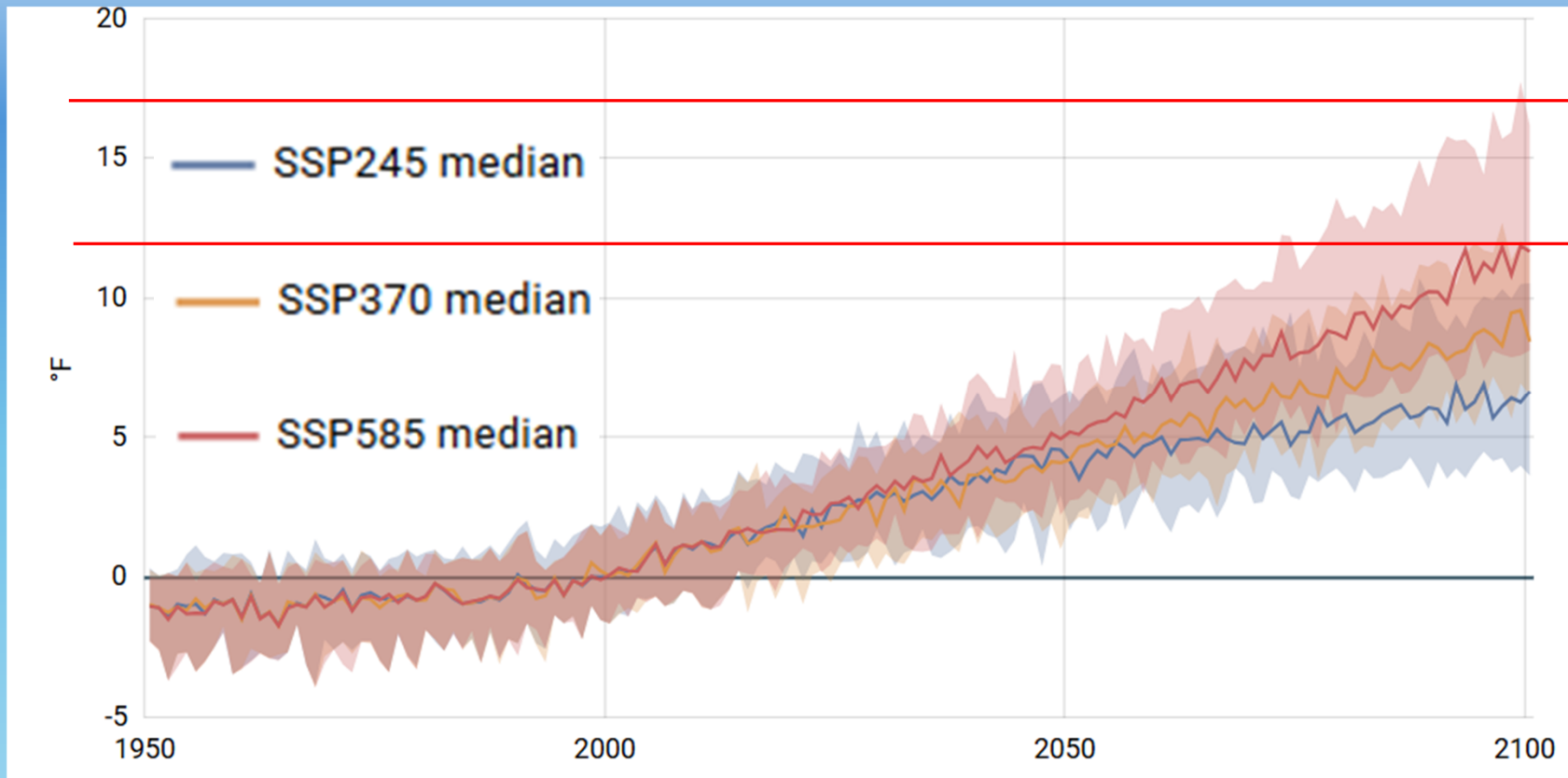


# Multnomah Co. Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010



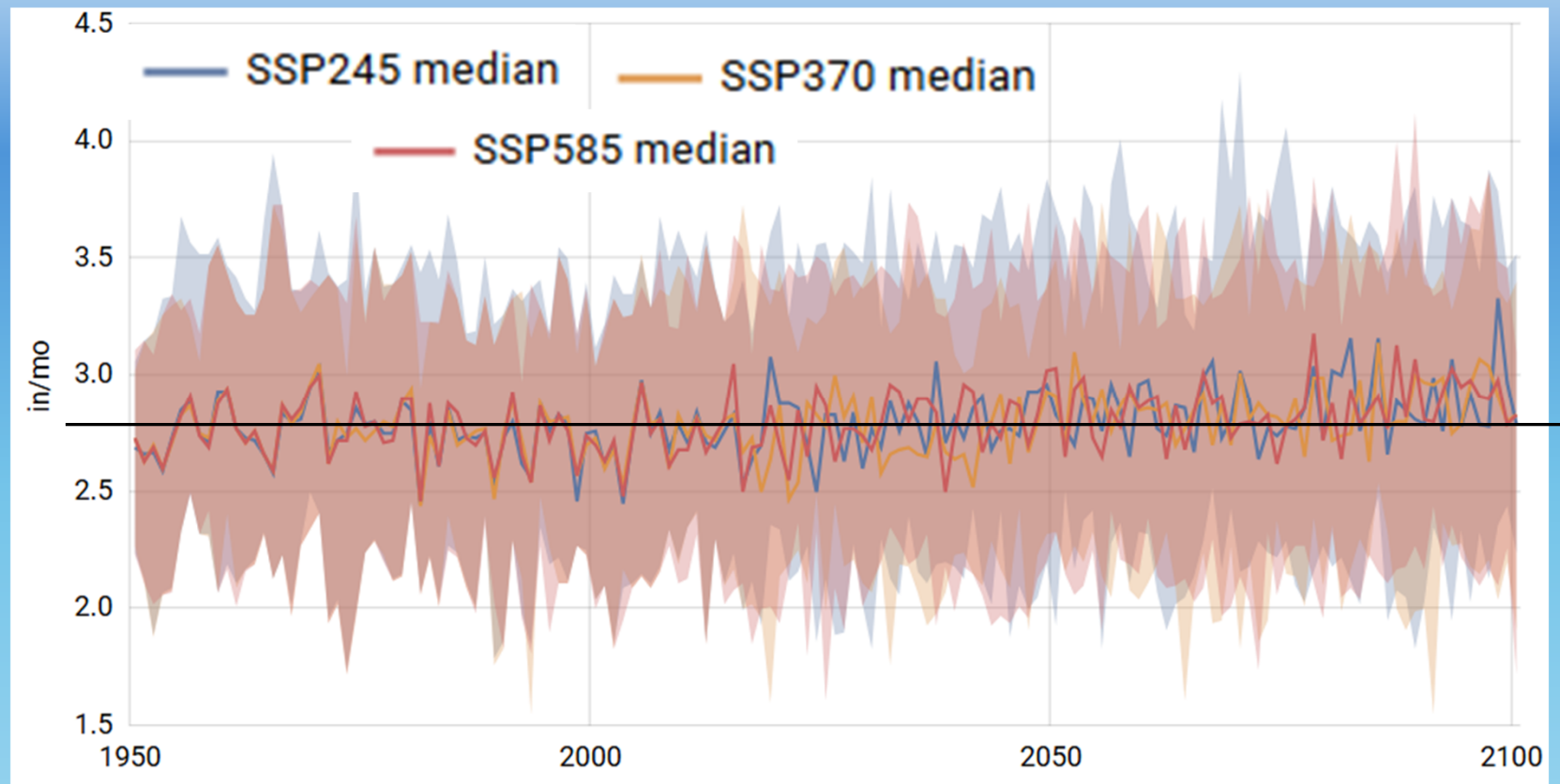
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# Wallowa Co. Average Temperature $\Delta$ Projections to 2100: Baseline 1981-2010



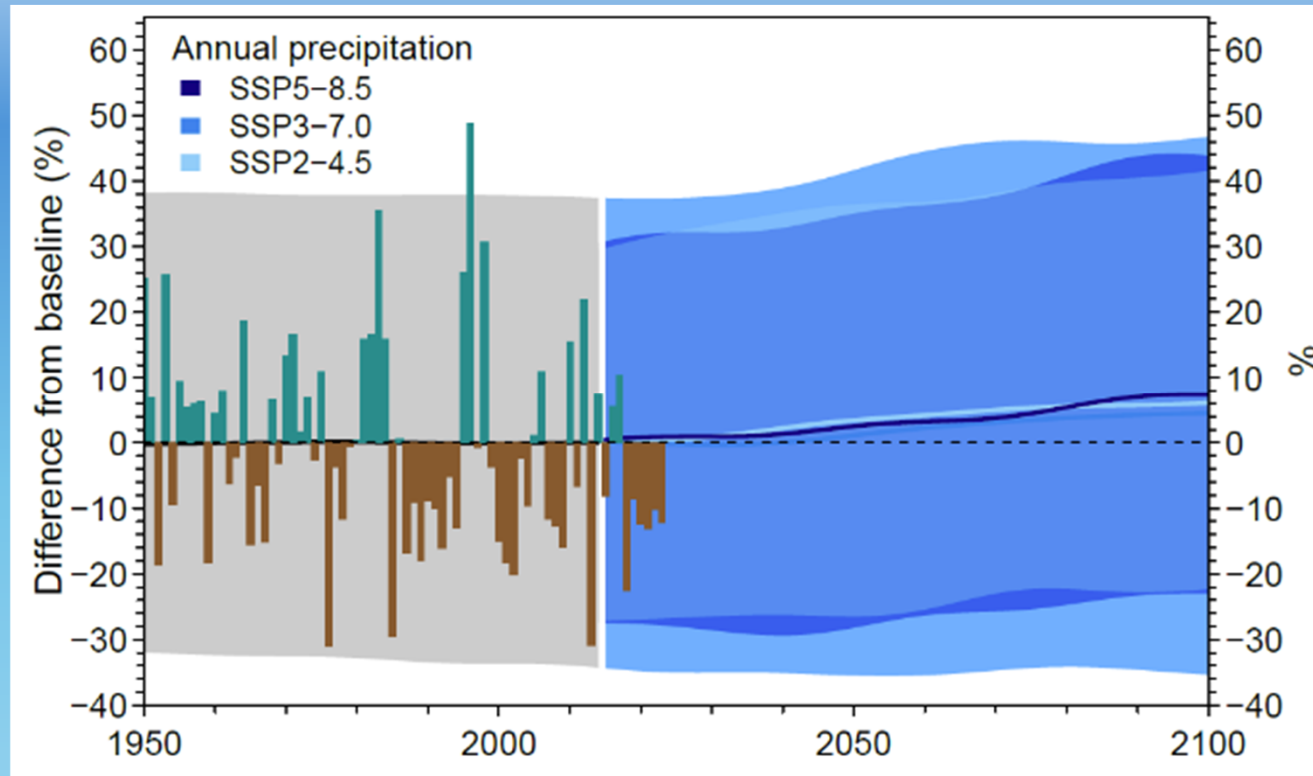
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# Oregon Precipitation Projections to 2075-2099



[https://apps.usgs.gov/nccv/loca2/nccv2\\_loca2\\_counties.html](https://apps.usgs.gov/nccv/loca2/nccv2_loca2_counties.html)

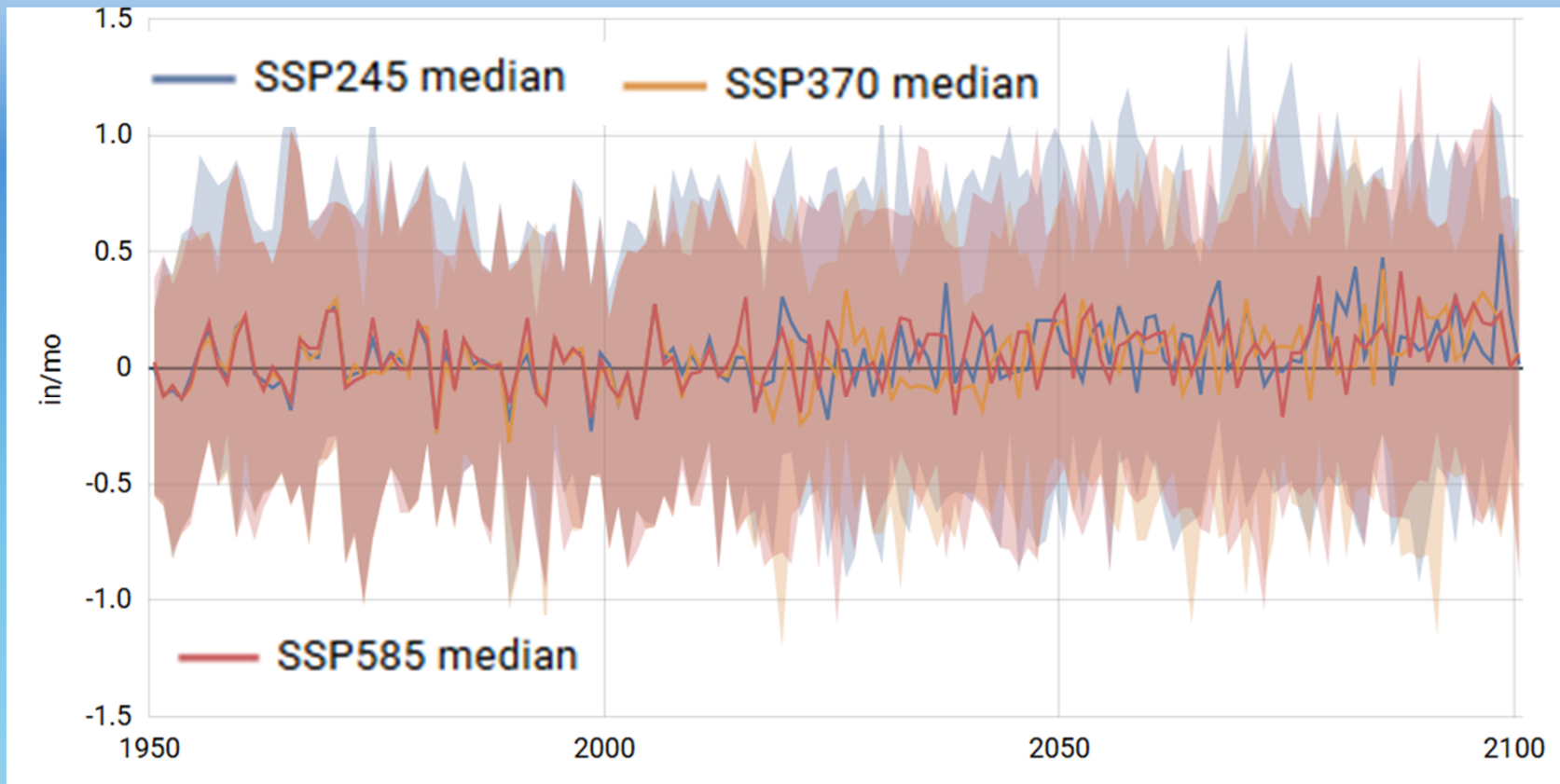
# OCCRI Precipitation Projections - Baseline 1950-2014 average



<https://oregonstate.app.box.com/s/ziqc1kisxkup45147phjp526kheugqnb>

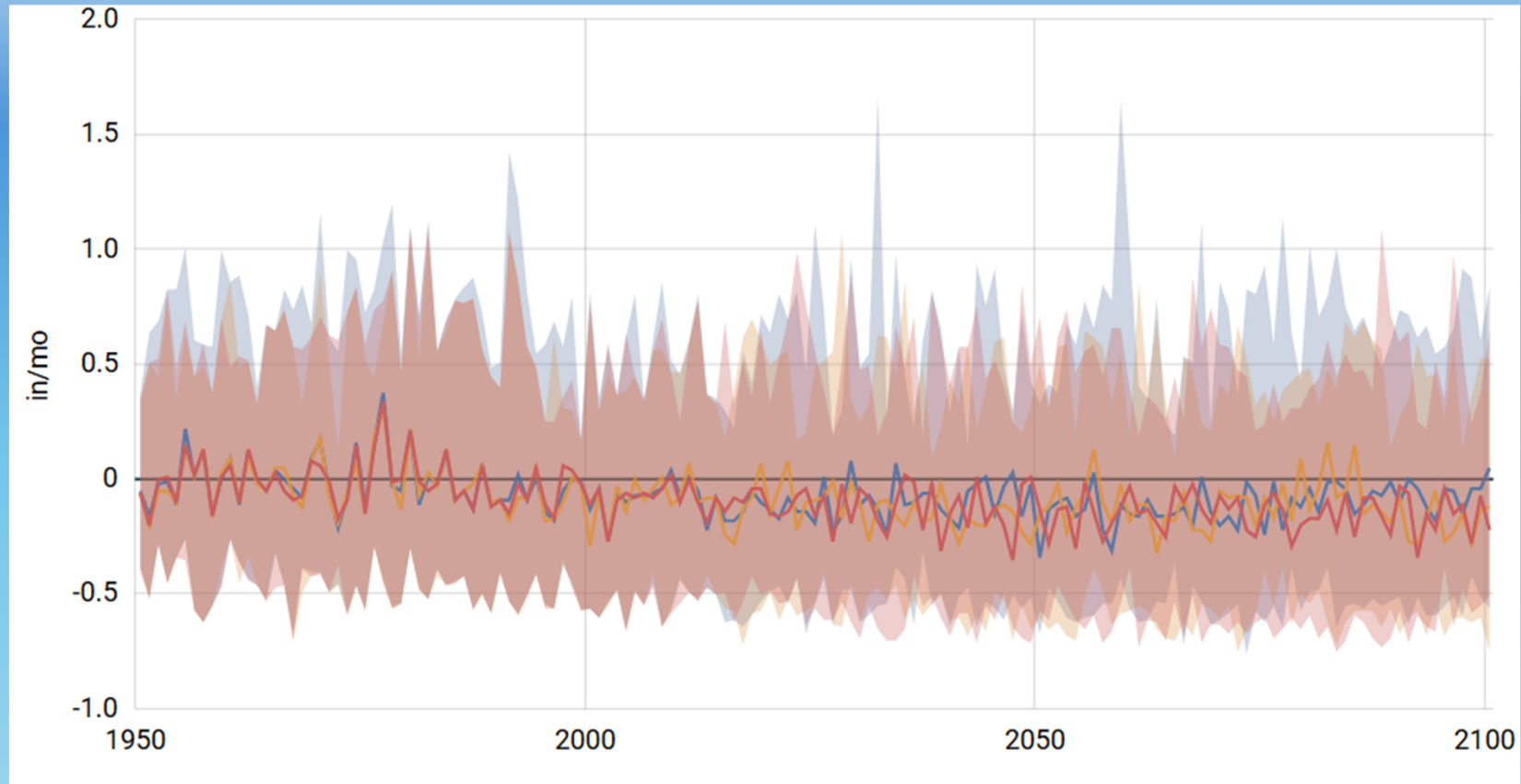


# Oregon Precipitation $\Delta$ Projections to 2075-2099



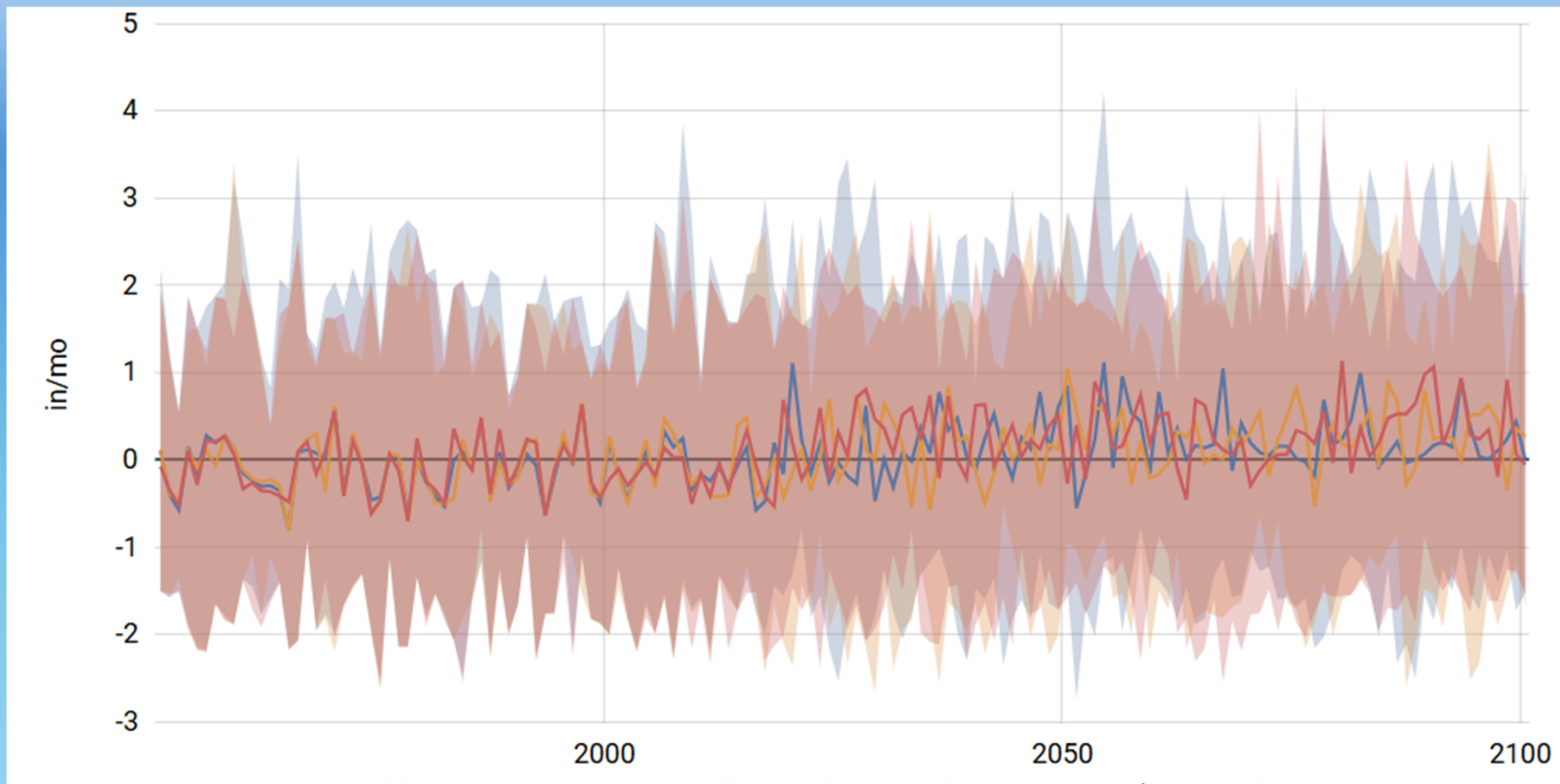
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# Summer Precipitation $\Delta$ Projections to 2075-2099



[https://apps.usgs.gov/nccv/loca2/nccv2\\_loca2\\_counties.html](https://apps.usgs.gov/nccv/loca2/nccv2_loca2_counties.html)

# Winter Precipitation $\Delta$ Projections to 2075-2099



[https://apps.usgs.gov/nccv/loca2/nccv2\\_loca2\\_counties.html](https://apps.usgs.gov/nccv/loca2/nccv2_loca2_counties.html)

# Trend in extremely hot days

## MORE HIGH HEAT INDEX DAYS

Days with a heat index of 90°+

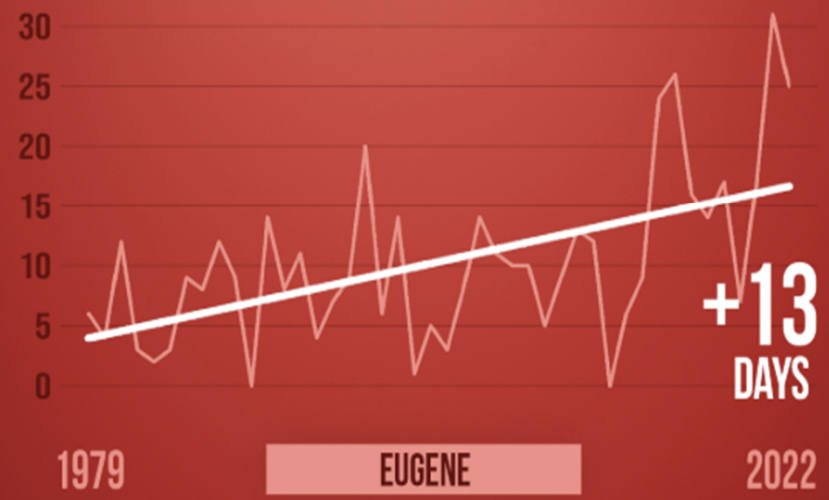


Annual days with heat index of 90°F+. Source: gridMET minimum relative humidity & maximum temperature datasets

CLIMATE  CENTRAL

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Annual days with heat index of 90°F+. Source: gridMET minimum relative humidity & maximum temperature datasets

CLIMATE  CENTRAL

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CLIMATE CENTRAL

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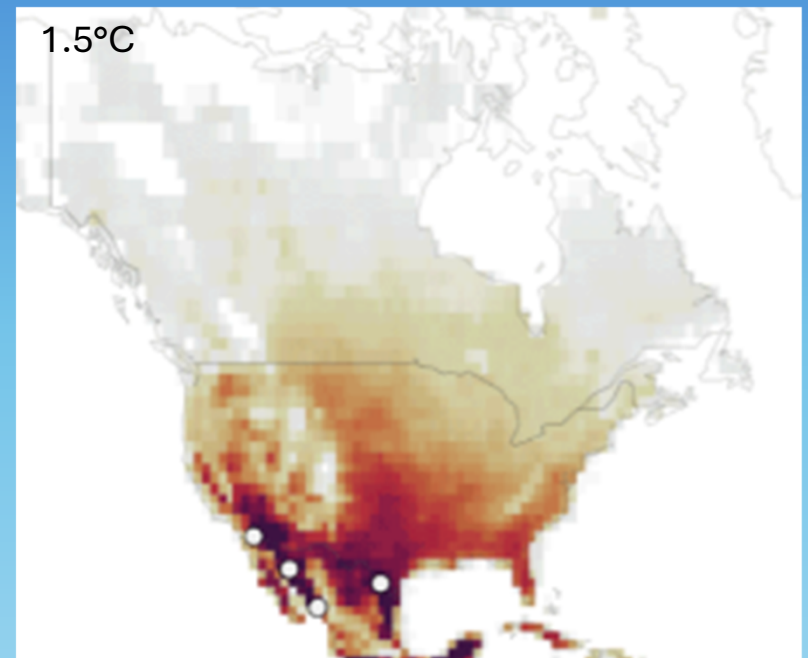
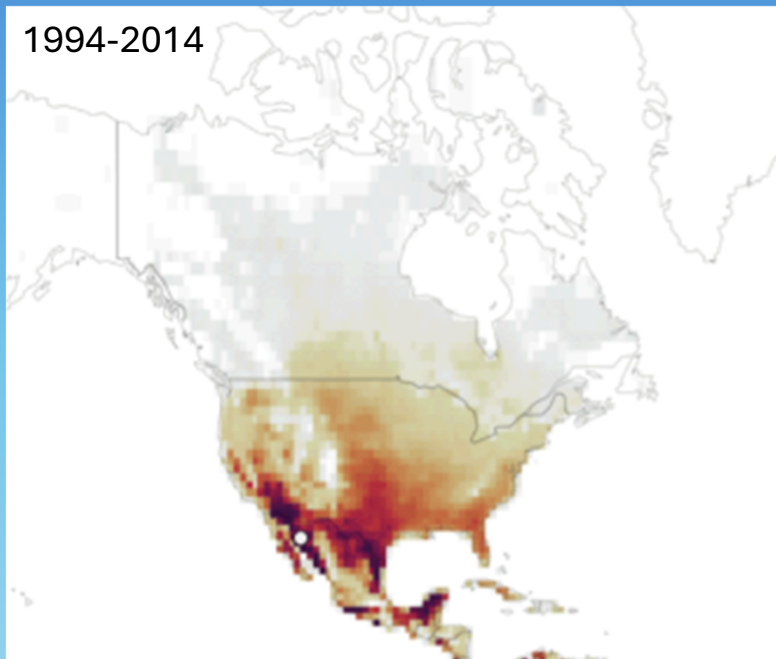
Annual days with heat index of 90°F+. Source: gridMET minimum relative humidity & maximum temperature datasets

CLIMATE CENTRAL



# Days in U.S. over 95°F

0 days  150+ days

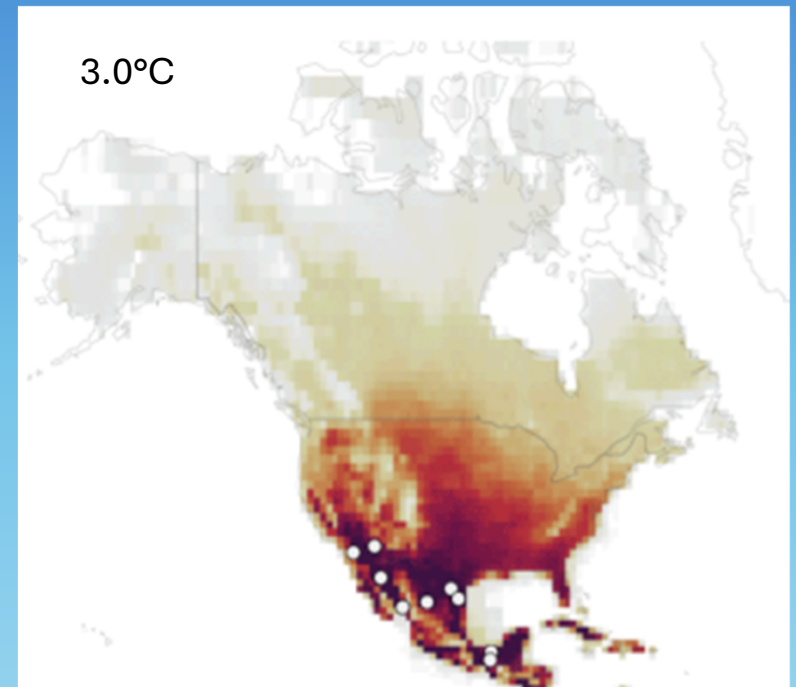
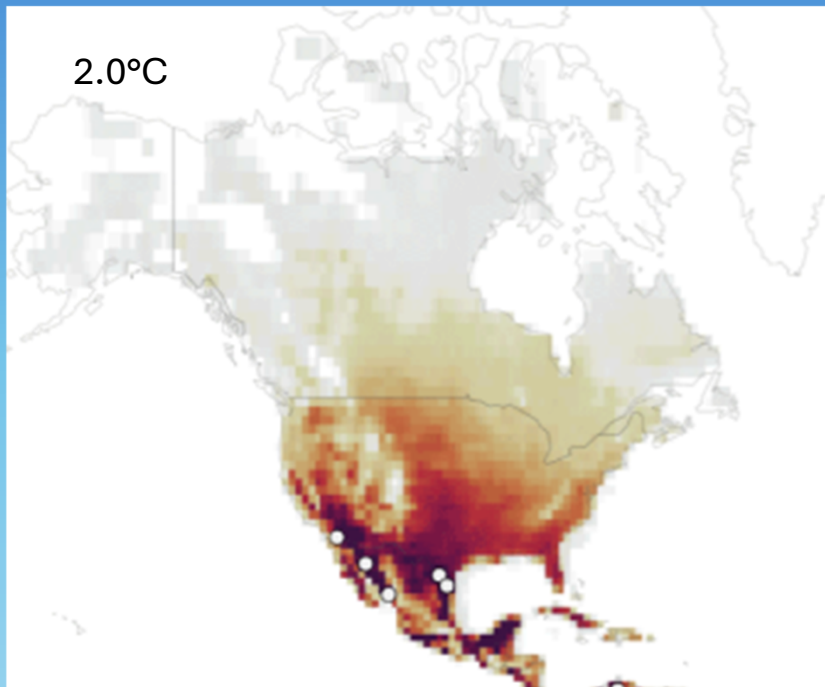


<https://www.wri.org/insights/future-extreme-heat-cities-data>



# Days in U.S. over 95°F

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<https://www.wri.org/insights/future-extreme-heat-cities-data>

# Jackson County 20<sup>th</sup> Century Monthly Averages

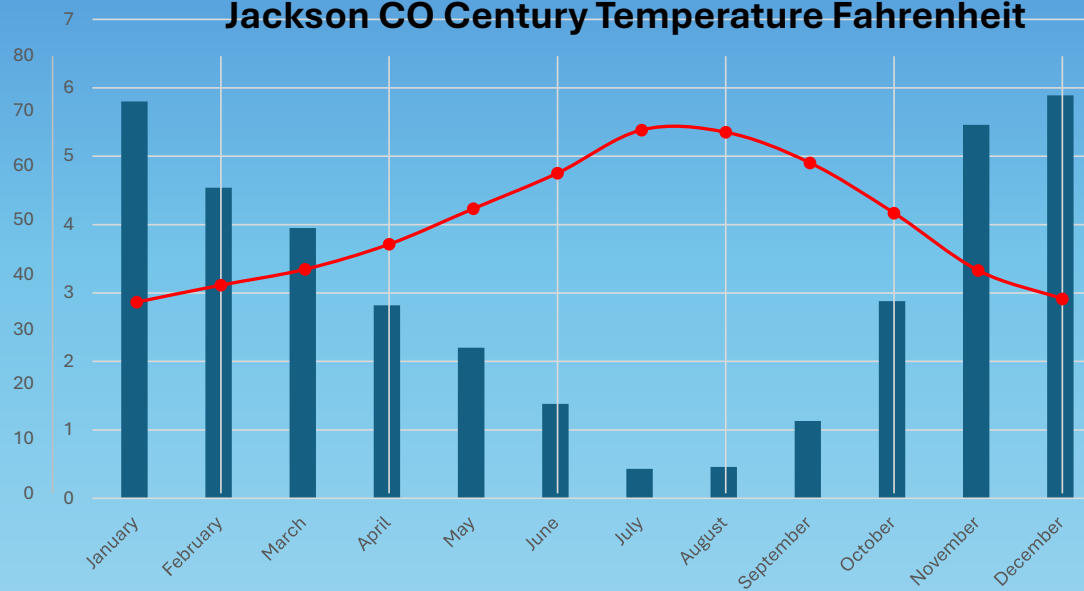
The  
Mediterranean Climate

European Mediterranean  
SW and S. Australia  
S. Africa western Cape  
Western S.A.  
Western N.A.

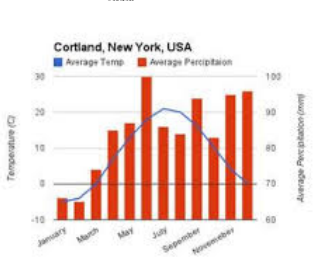
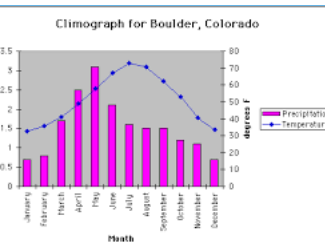
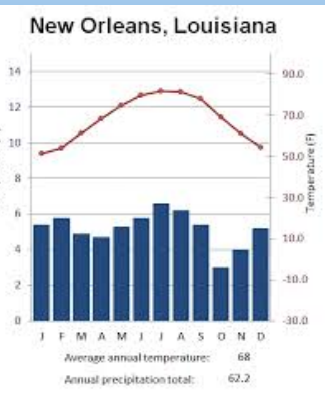
Historically, during late summer  
soil and vegetation dry out →  
Fire risk increases  
Dry forest fires frequent  
(every < 10 years)  
Surviving vegetation is fire-prone,  
fire adapted & fire dependent.

**Jackson CO. Century Average Precipitation  
Inches**

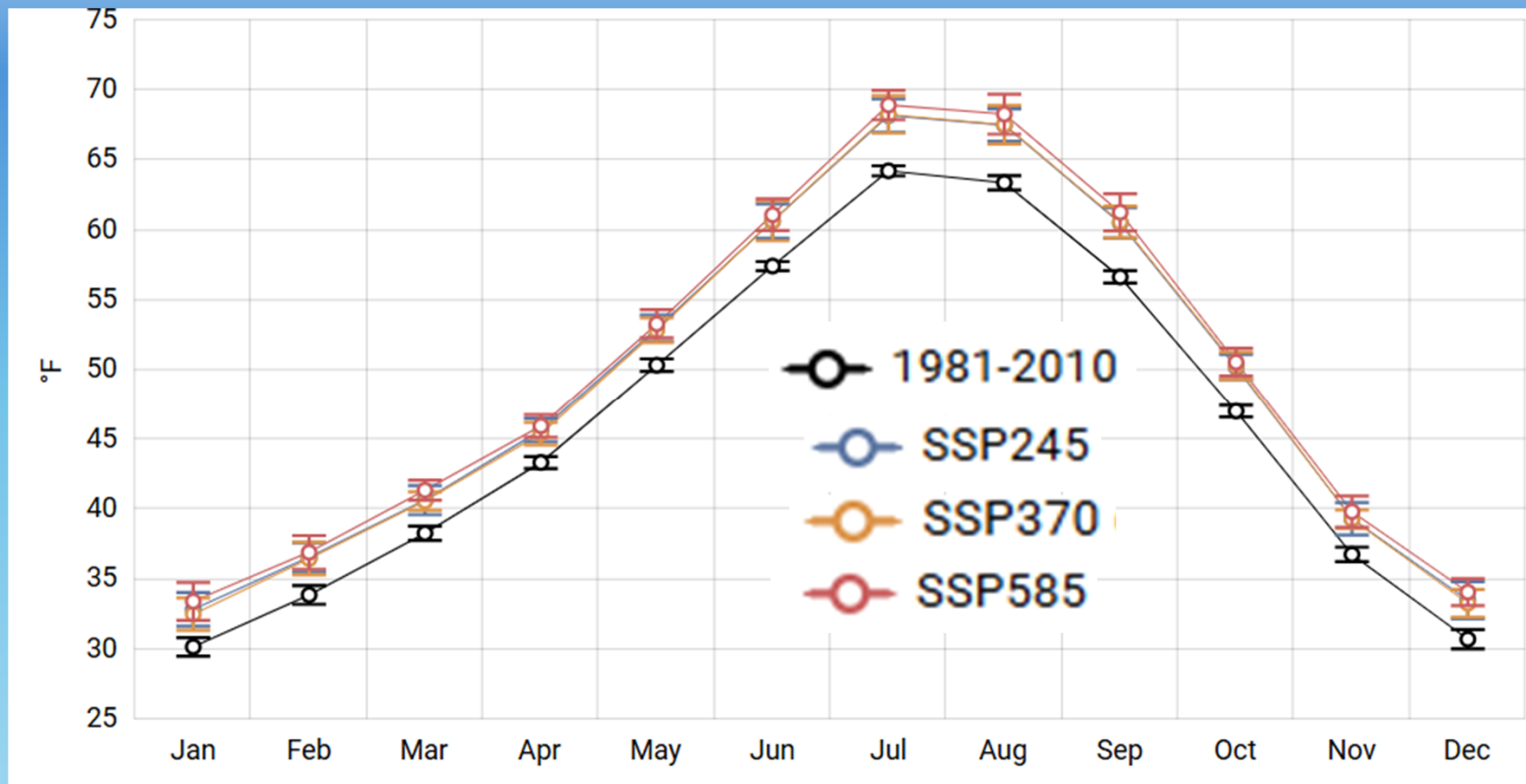
**Jackson CO Century Temperature Fahrenheit**



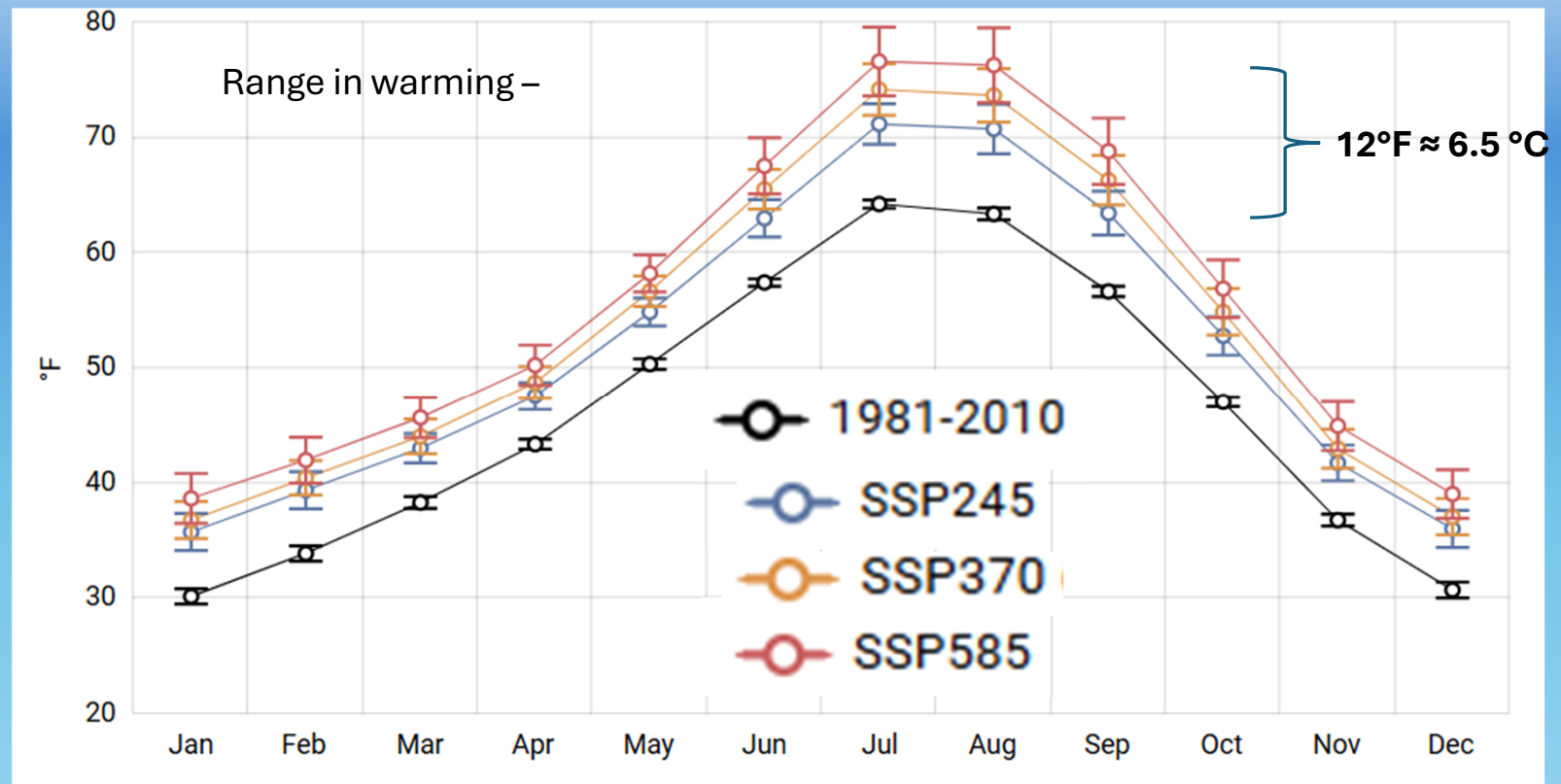
[https://www.ncdc.noaa.gov/cag/county/time-series/OR-029/tavg/1/12/1895-2019?base\\_prd=true&firstbaseyear=1901&lastbaseyear=2000](https://www.ncdc.noaa.gov/cag/county/time-series/OR-029/tavg/1/12/1895-2019?base_prd=true&firstbaseyear=1901&lastbaseyear=2000)



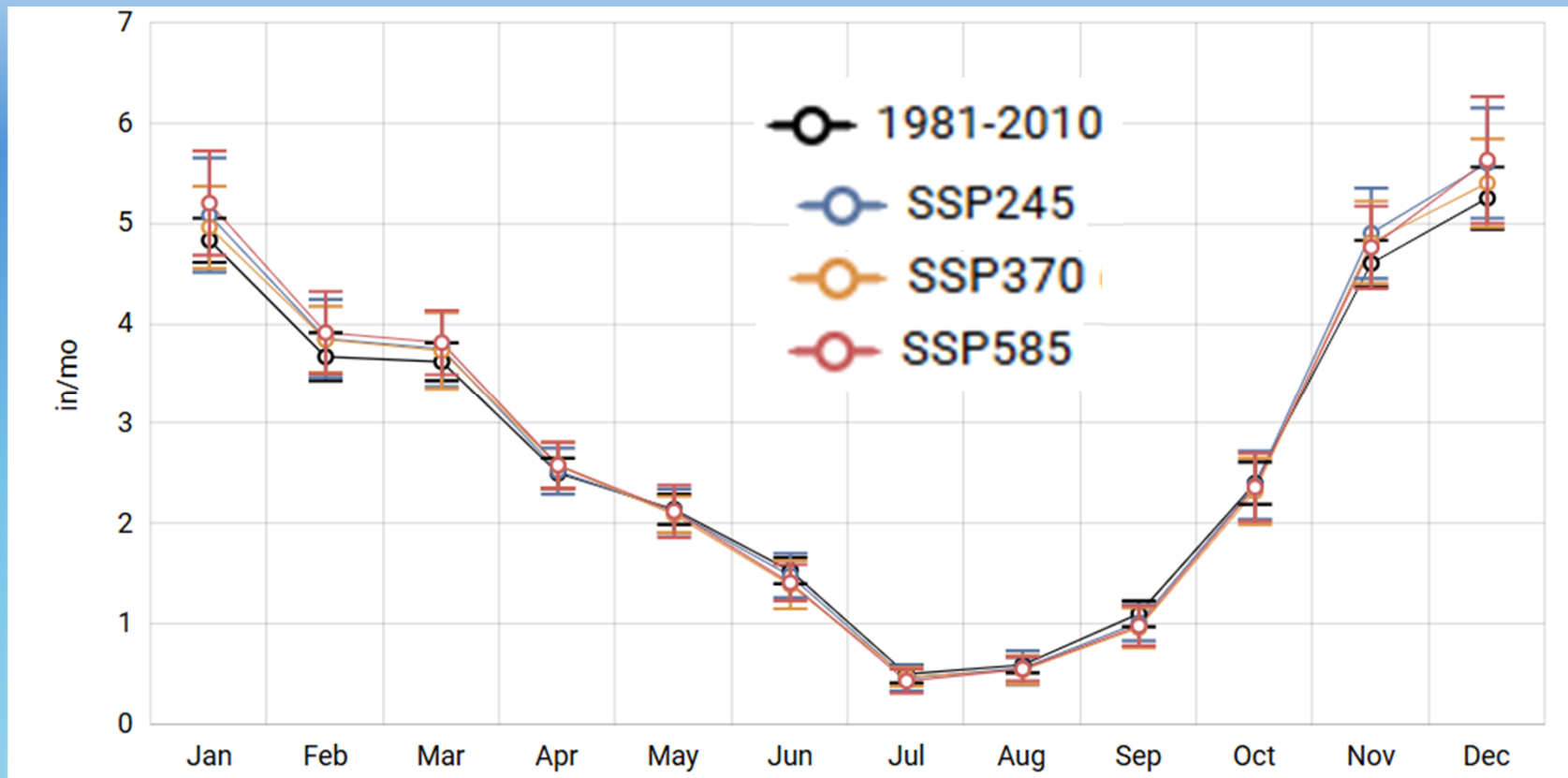
# Oregon Mean Temperature Climograph: 2025-2049



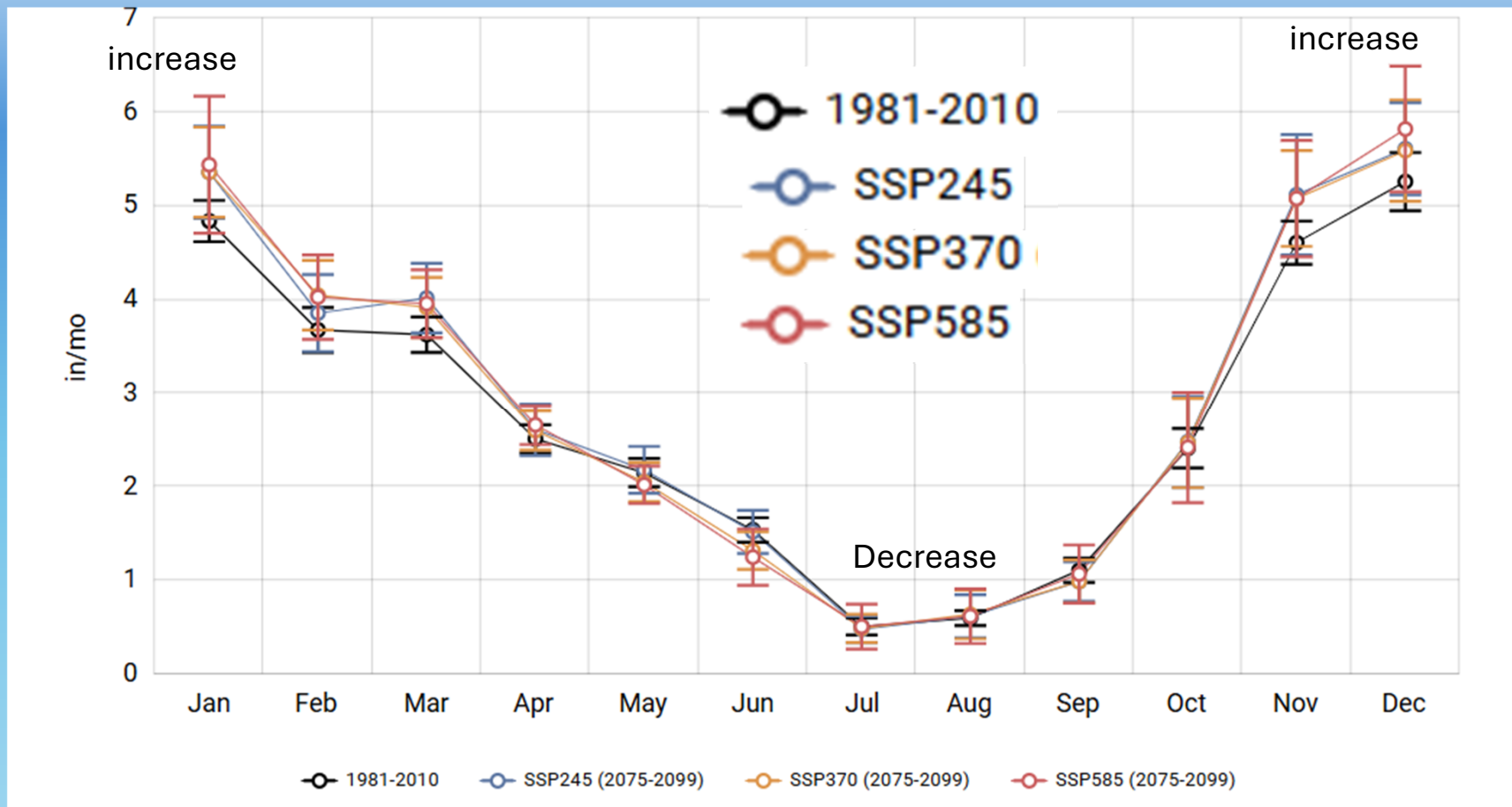
# Oregon Mean Temperature Climograph to 2075-2099

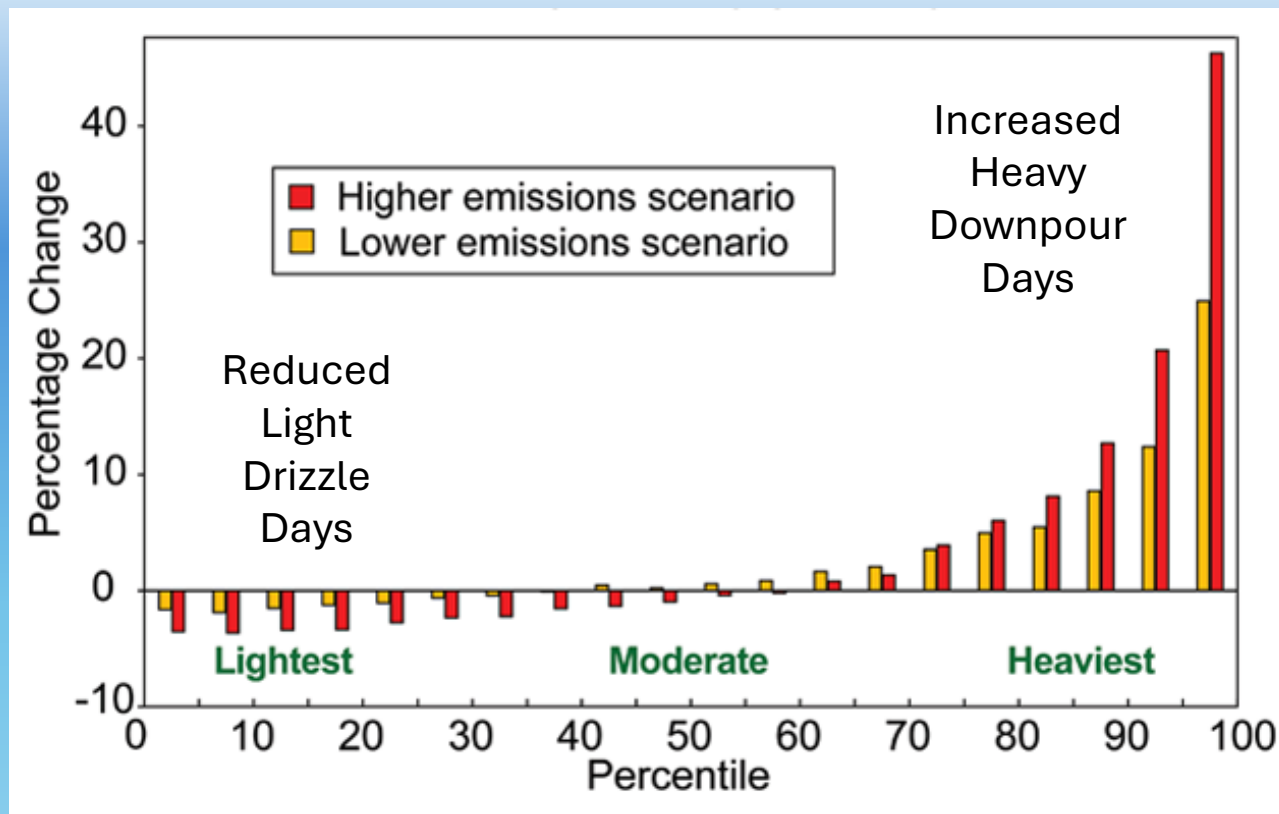


# Oregon Mean Precipitation Climograph: 2025-2049



# Oregon Mean Precipitation Climograph to 2075-2099



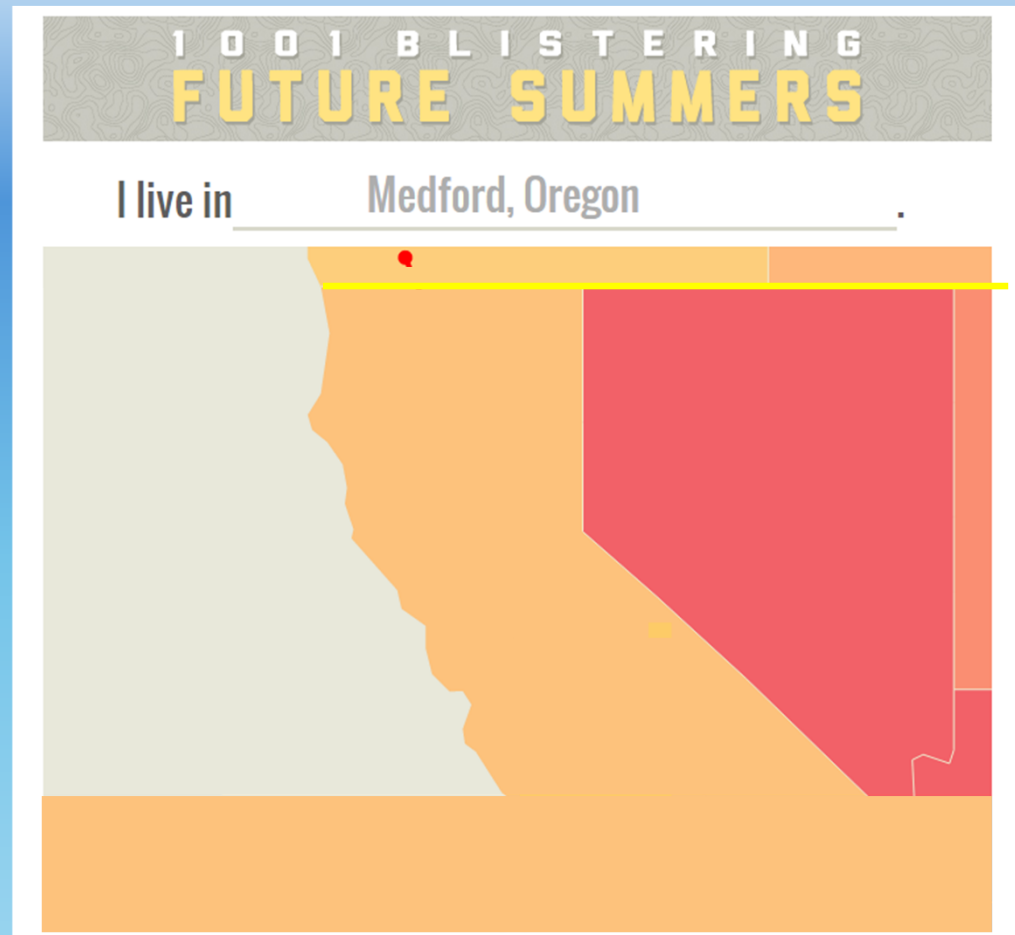


Projected  
Patterns in  
Light,  
Moderate &  
Heavy  
Precipitation  
Events by  
2090s

Global Climate Change Impacts in the U.S. 2009 p. 32  
<https://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf>

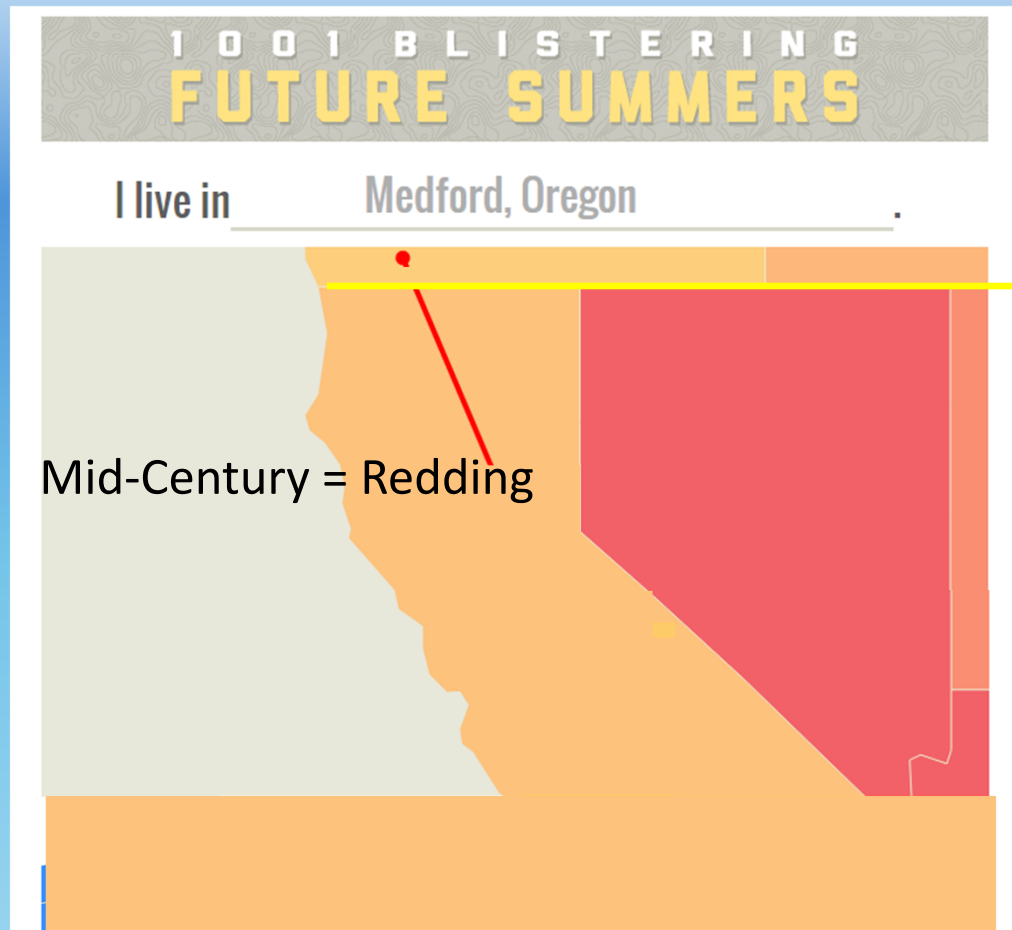


# Where In The World...? By 2050, 2100



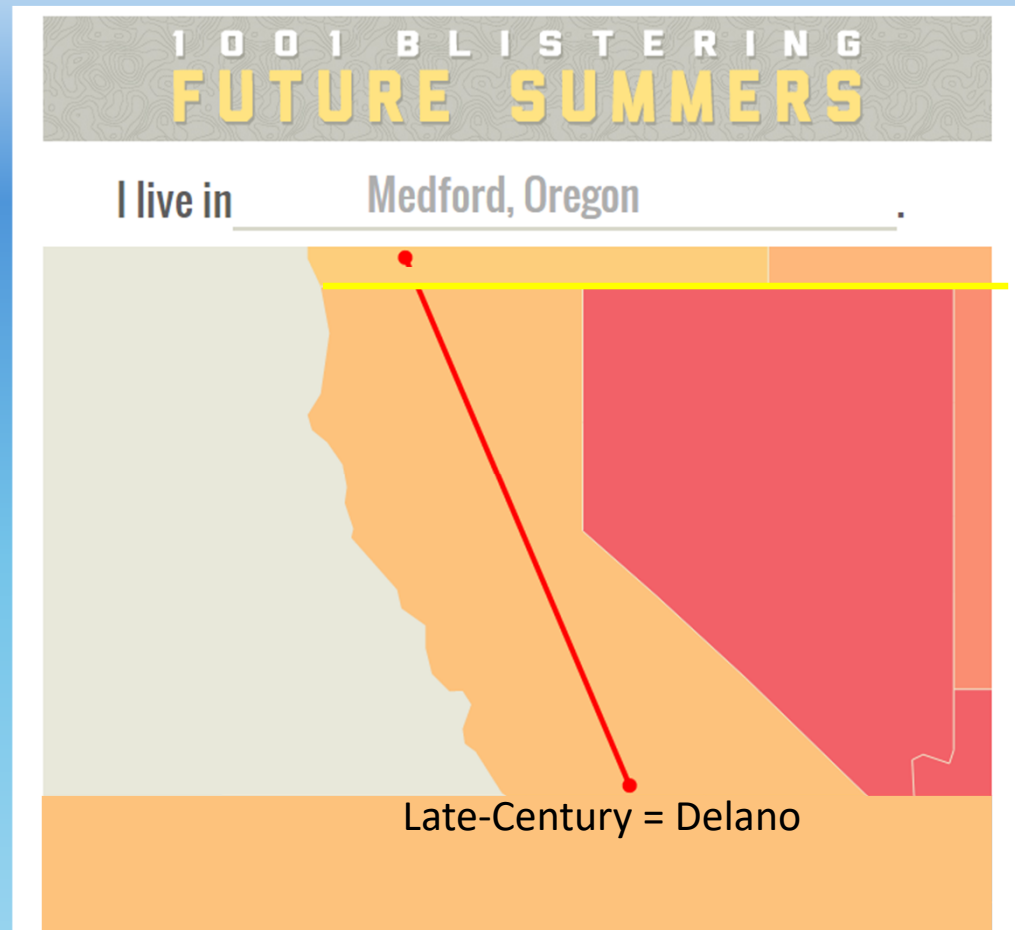
<http://www.climatecentral.org/news/summer-temperatures-co2-emissions-1001-cities-16583>

# Where In The World...? By 2050



<http://www.climatecentral.org/news/summer-temperatures-co2-emissions-1001-cities-16583>

# Where In The World...? By 2100



<http://www.climatecentral.org/news/summer-temperatures-co2-emissions-1001-cities-16583>

# Oregon Climate Trends and Projections

QUESTIONS

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**Cofacilitator, Southern Oregon Climate Action Now**  
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