

FUTURE PROJECTIONS OF CLIMATE CHANGE

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OKLAHOMA



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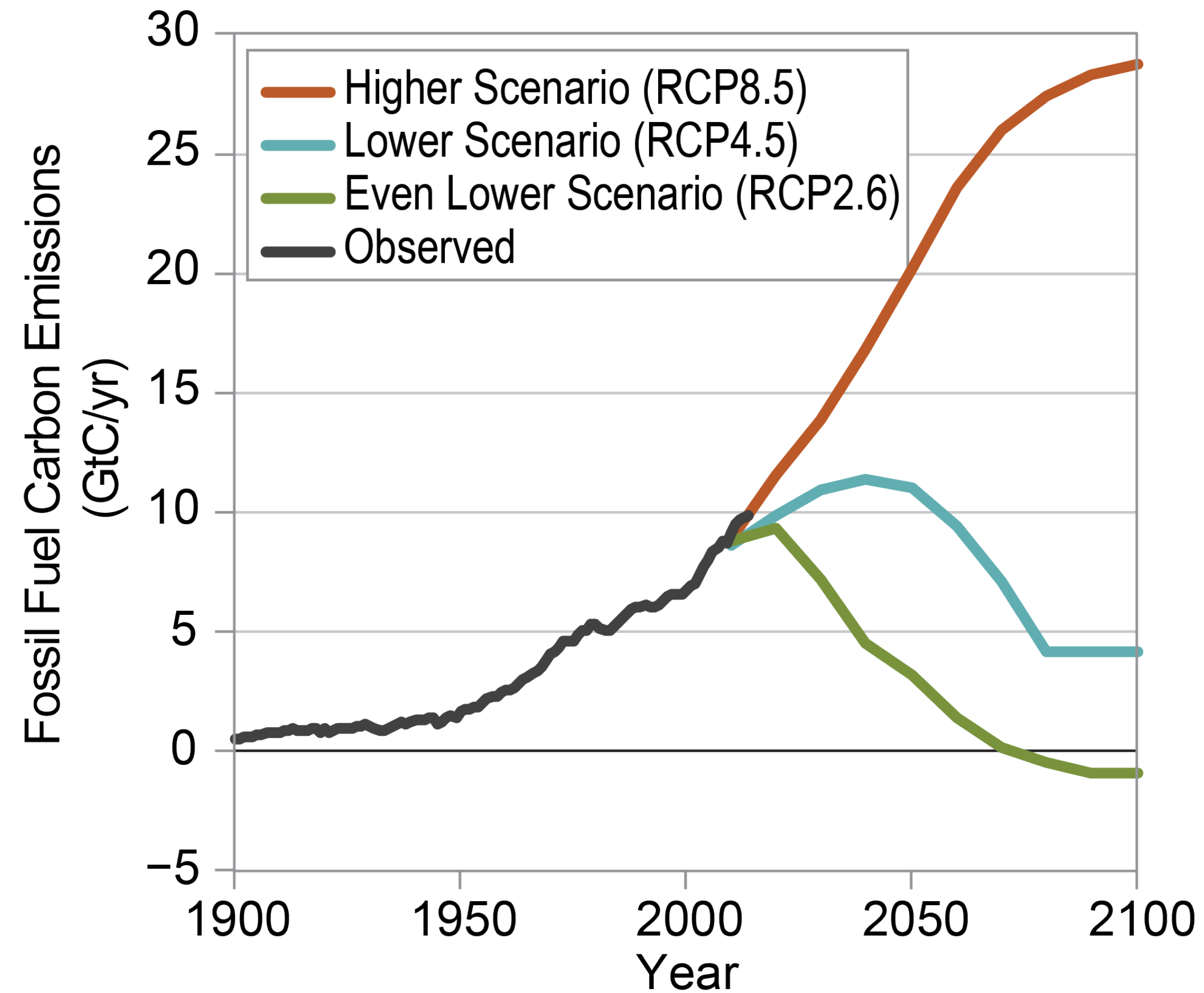
GLOBAL CLIMATE PROJECTIONS



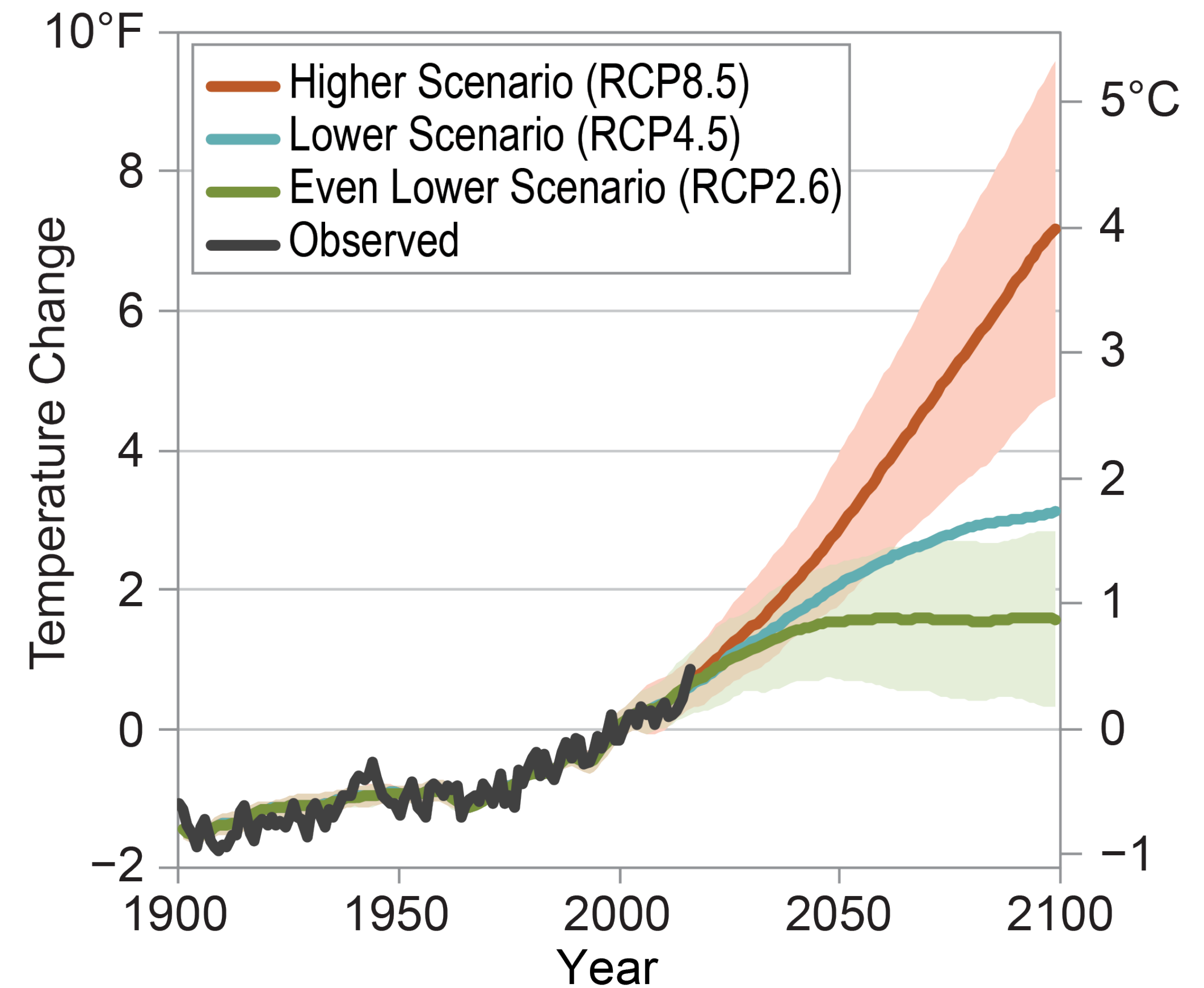
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EMISSIONS & TEMPERATURE CHANGE

Global Carbon Emissions



Global Average Temperature Change

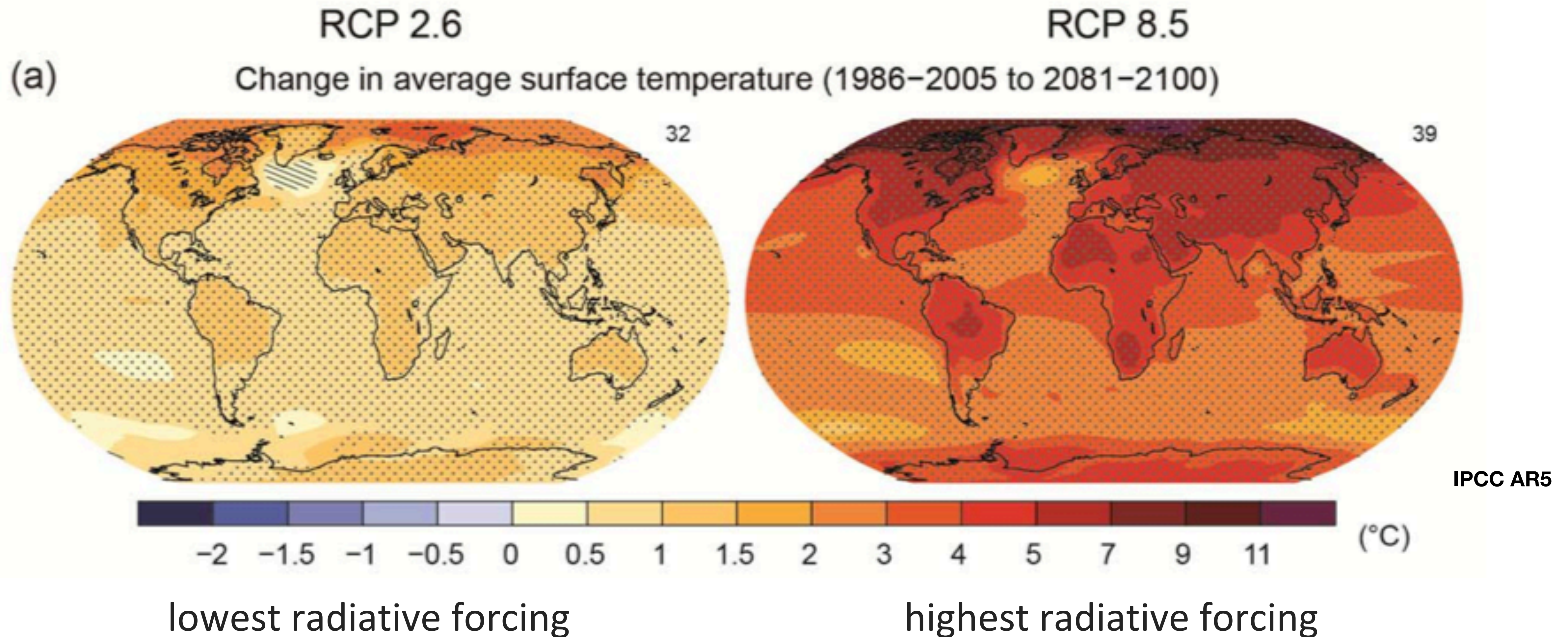


USGCRP CSSR 2017

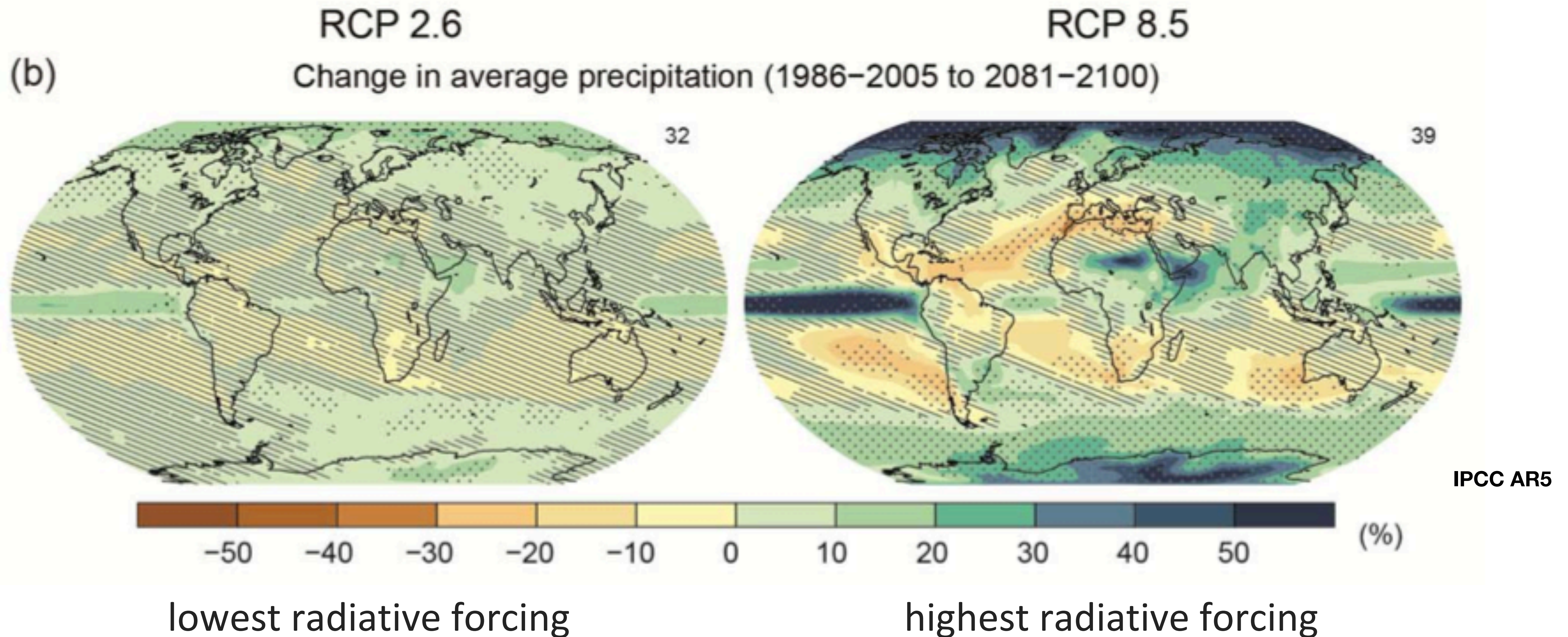


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PROJECTIONS FOR LATE 21ST CENTURY

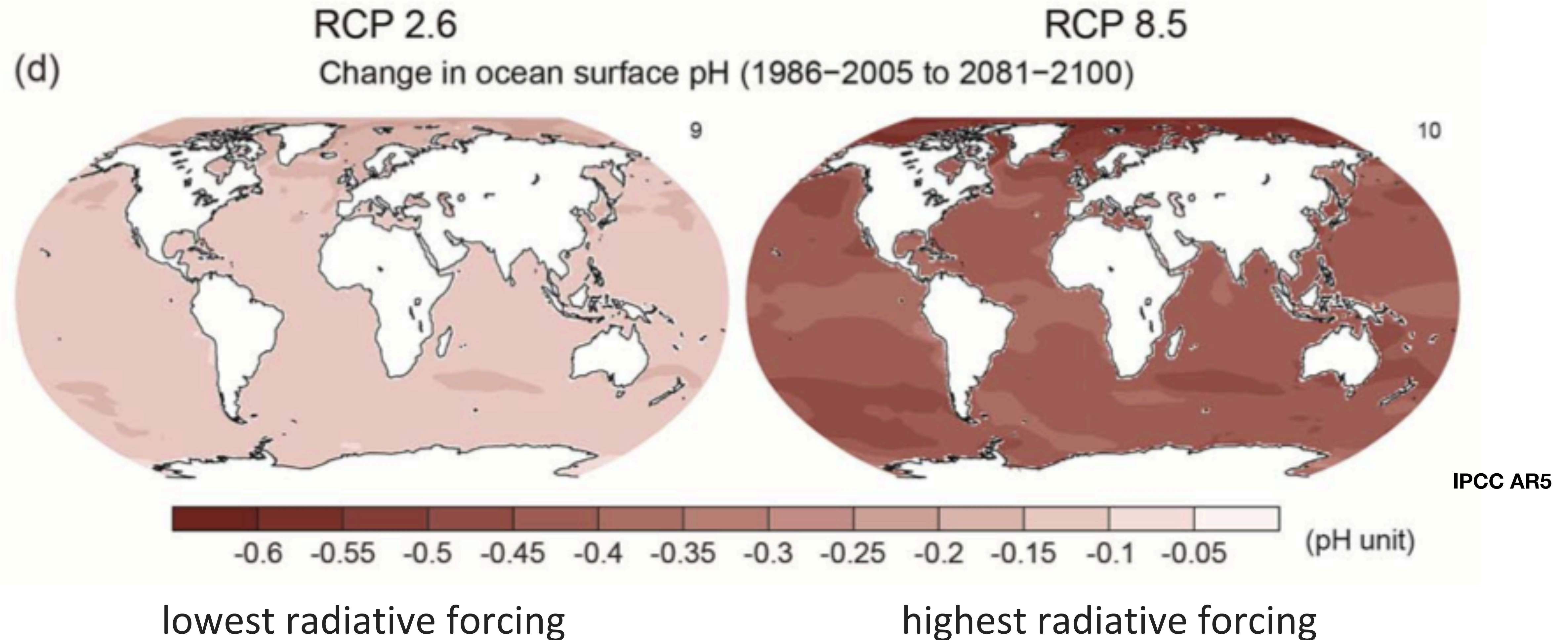


PROJECTIONS FOR LATE 21ST ~~CENTURY~~



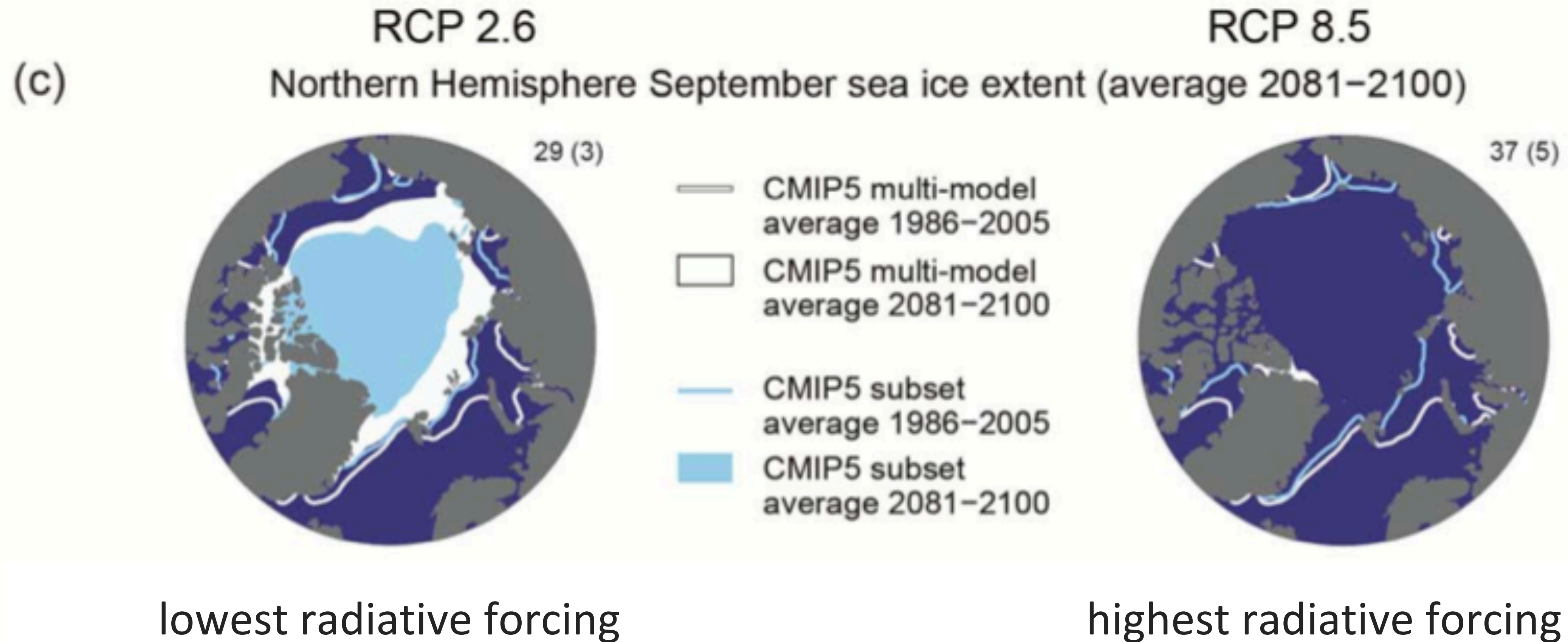
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PROJECTIONS FOR LATE 21ST ~~CENTURY~~



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PROJECTIONS FOR LATE 21ST ~~CENTURY~~



IPCC AR5



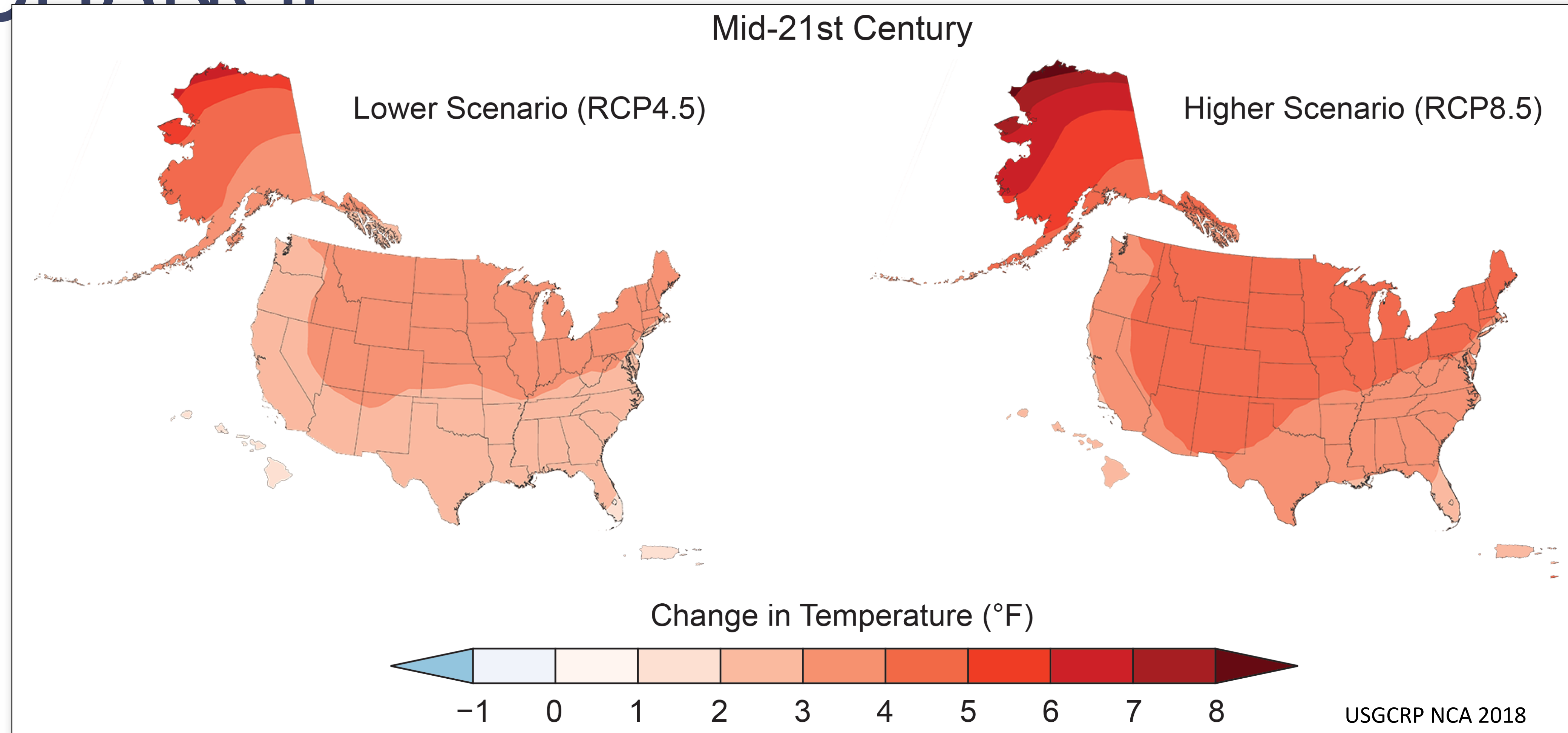
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NATIONAL CLIMATE PROJECTIONS



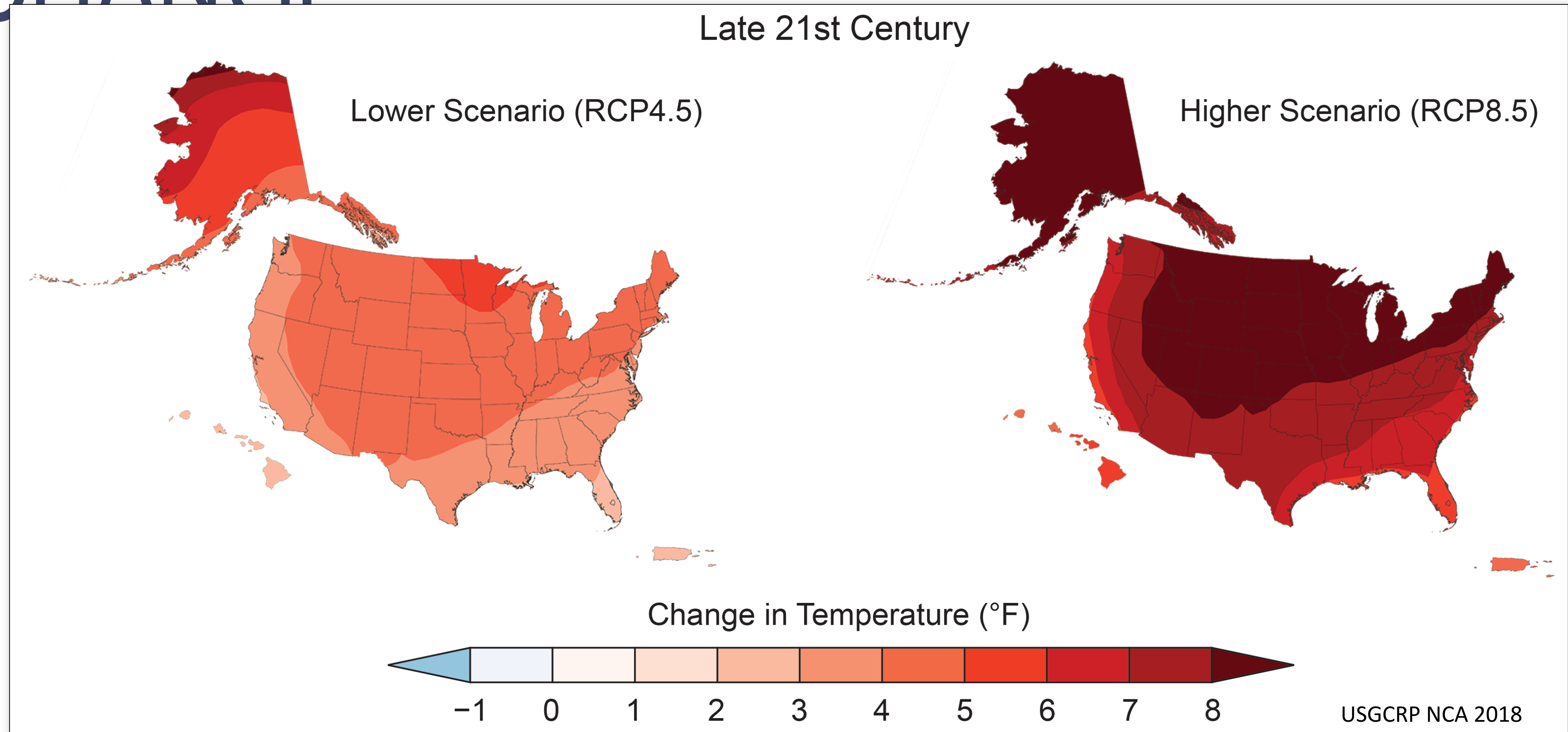
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PROJECTED TEMPERATURE CHANGE



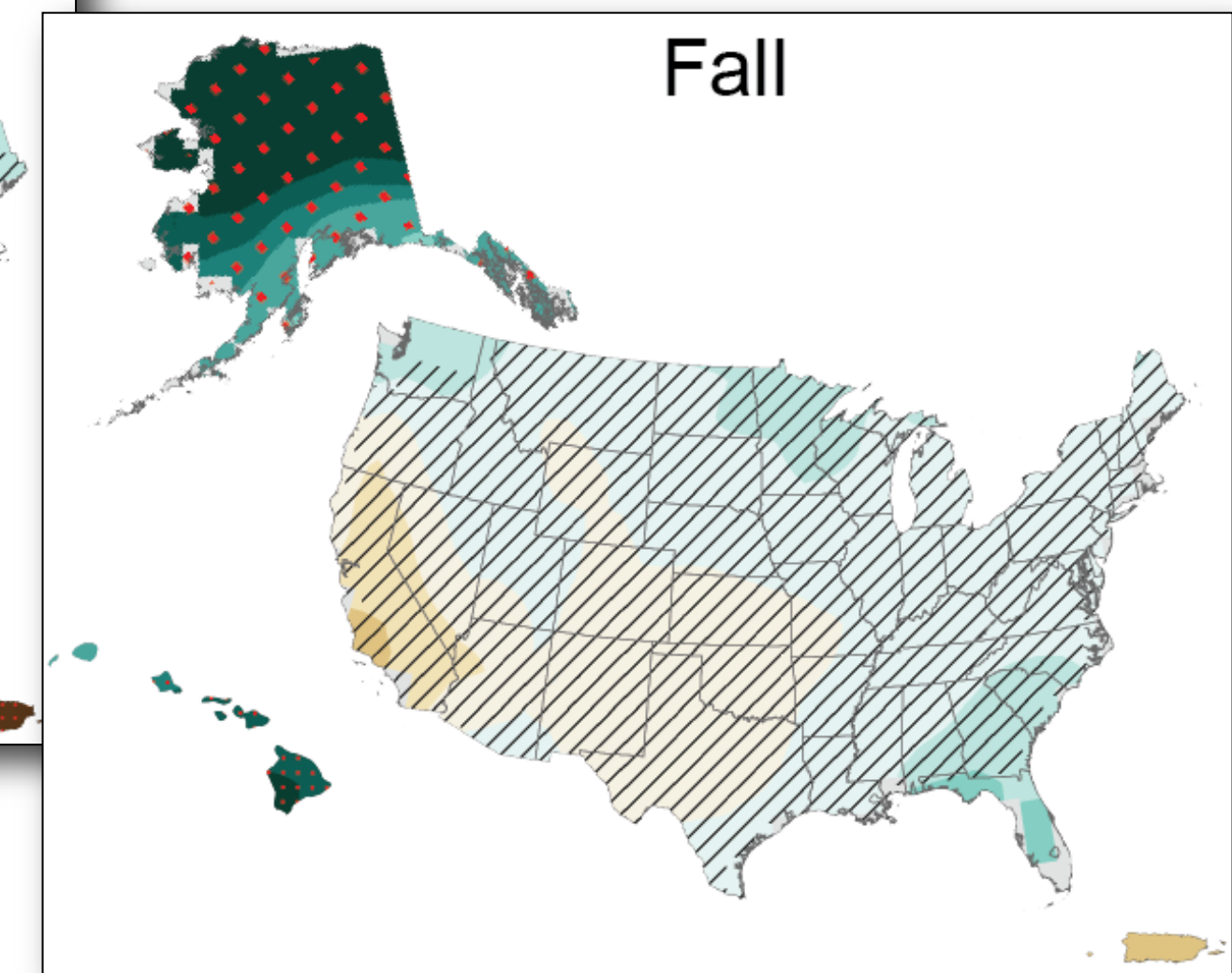
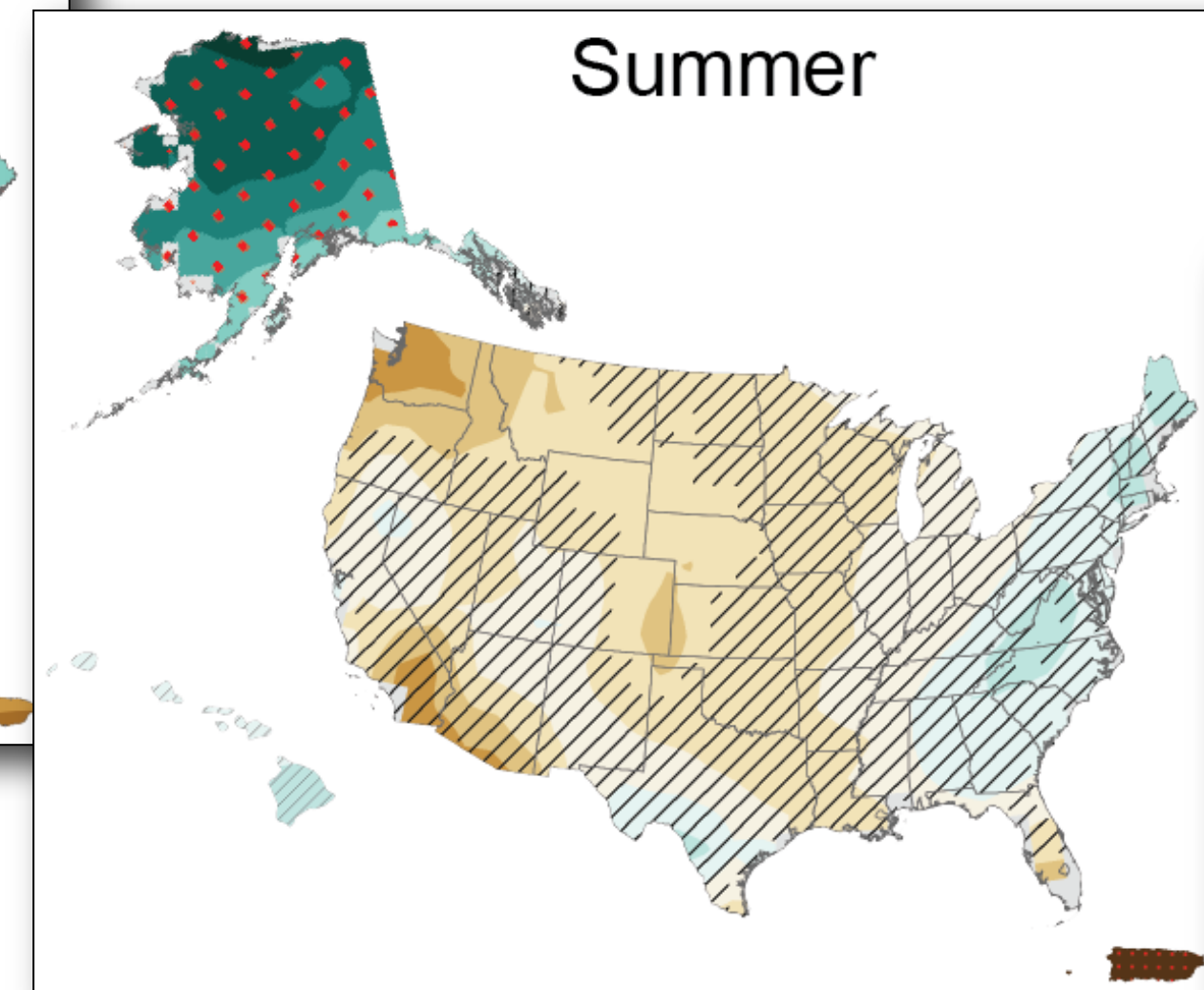
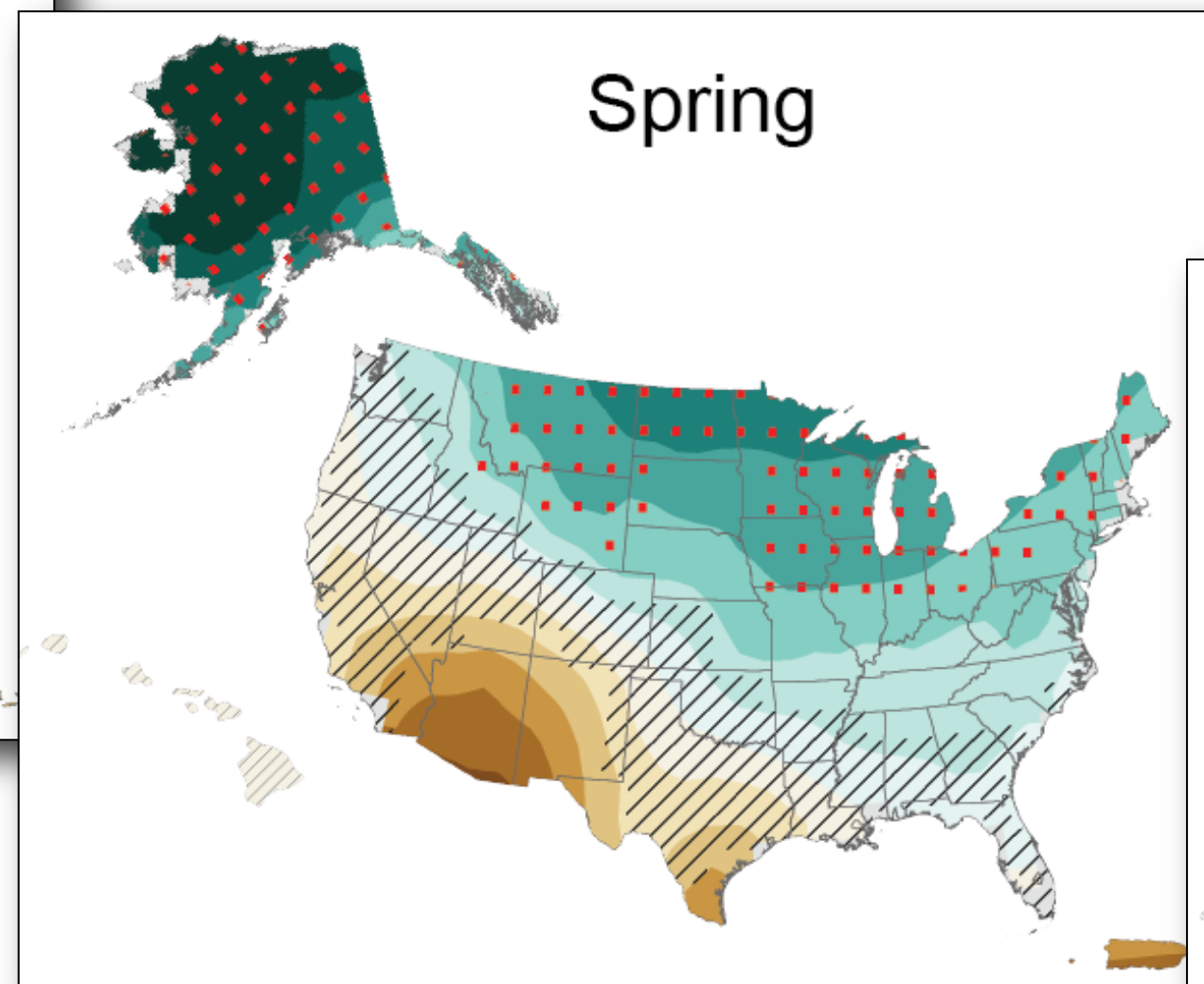
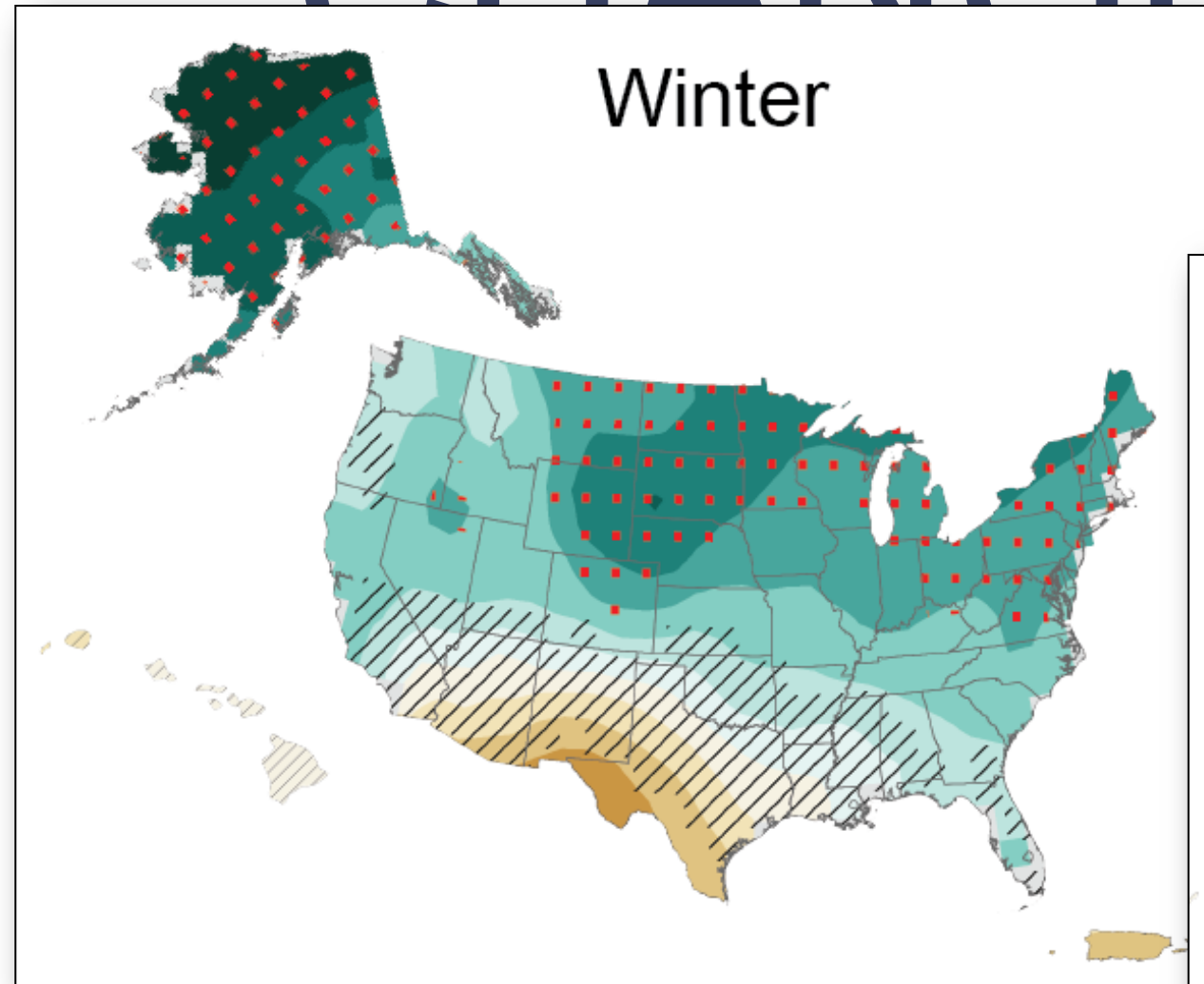
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PROJECTED TEMPERATURE CHANGE

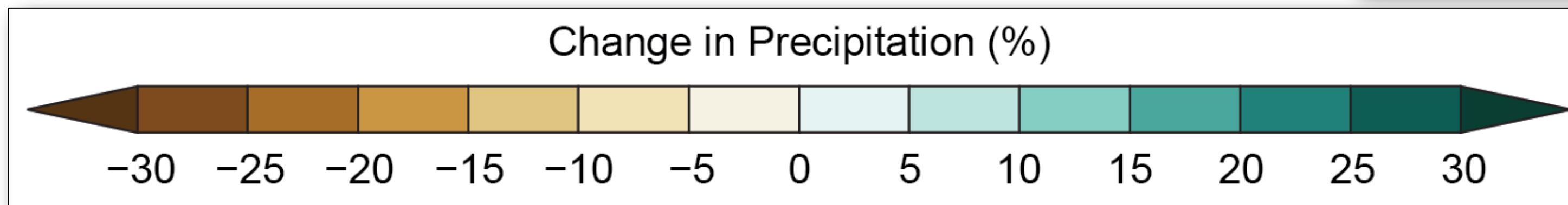


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PROJECTED PRECIPITATION CHANGE



Late 21st Century, Higher Scenario (RCP8.5)



USGCRP NCA 2018



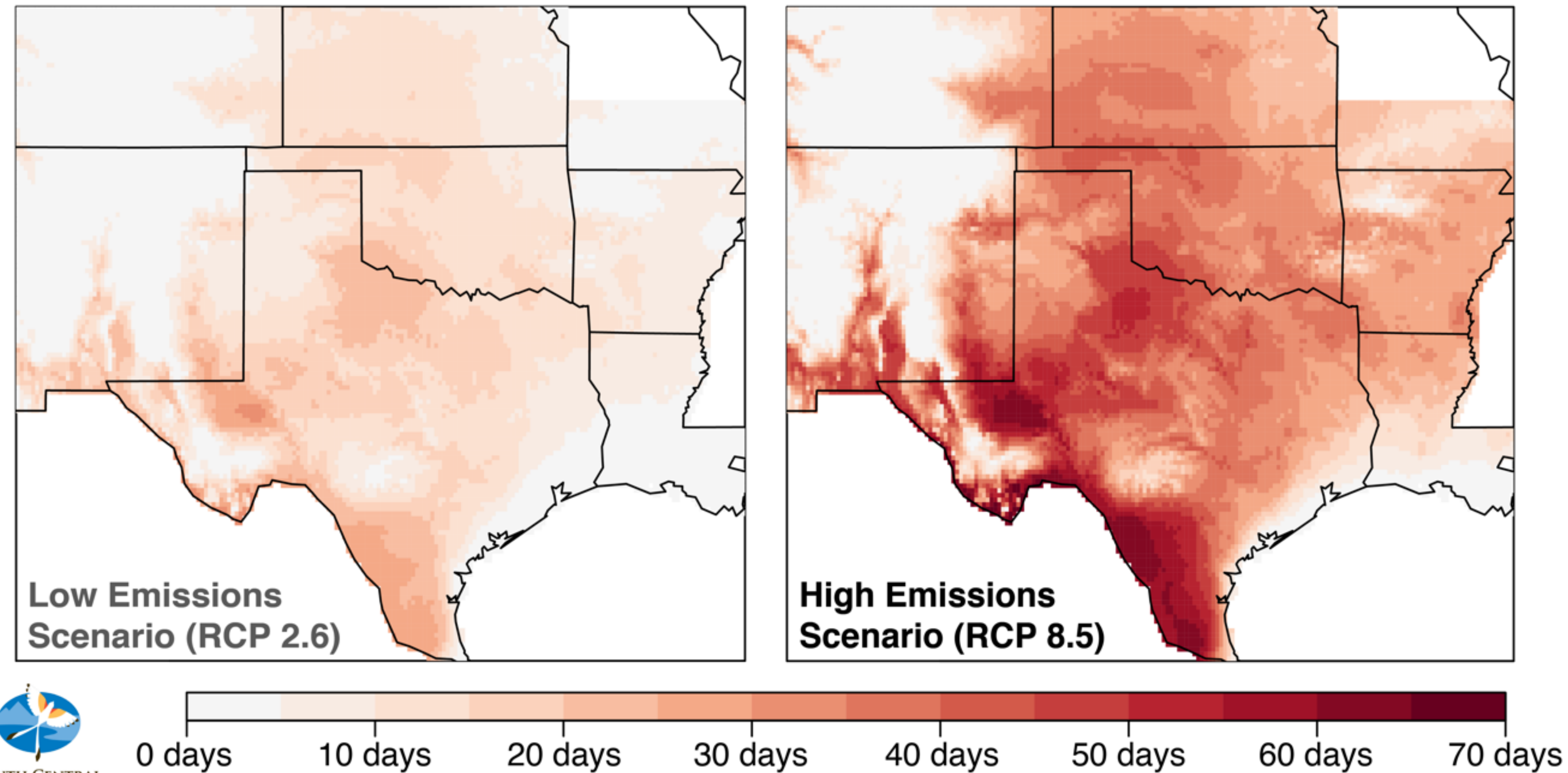
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REGIONAL PROJECTIONS



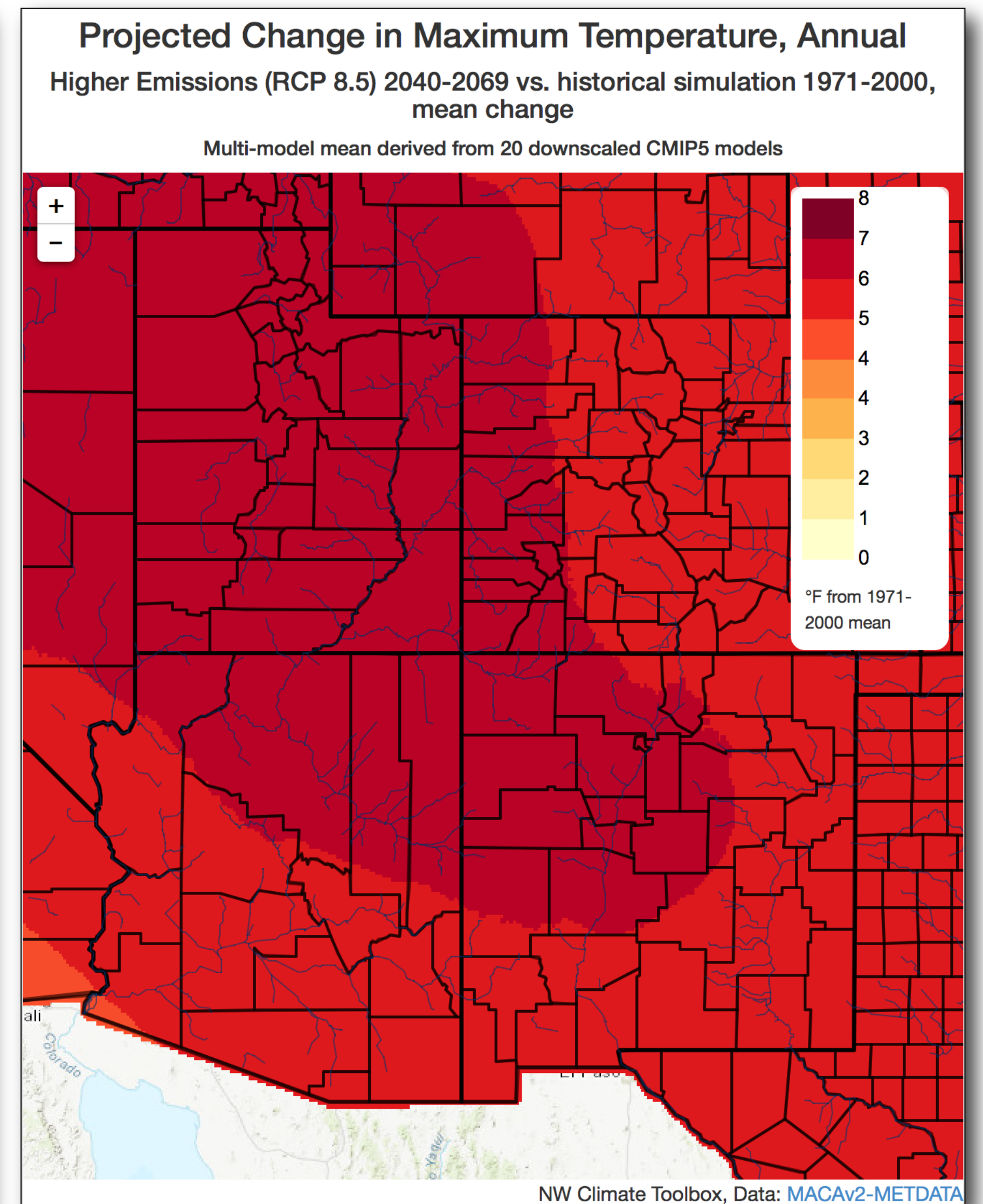
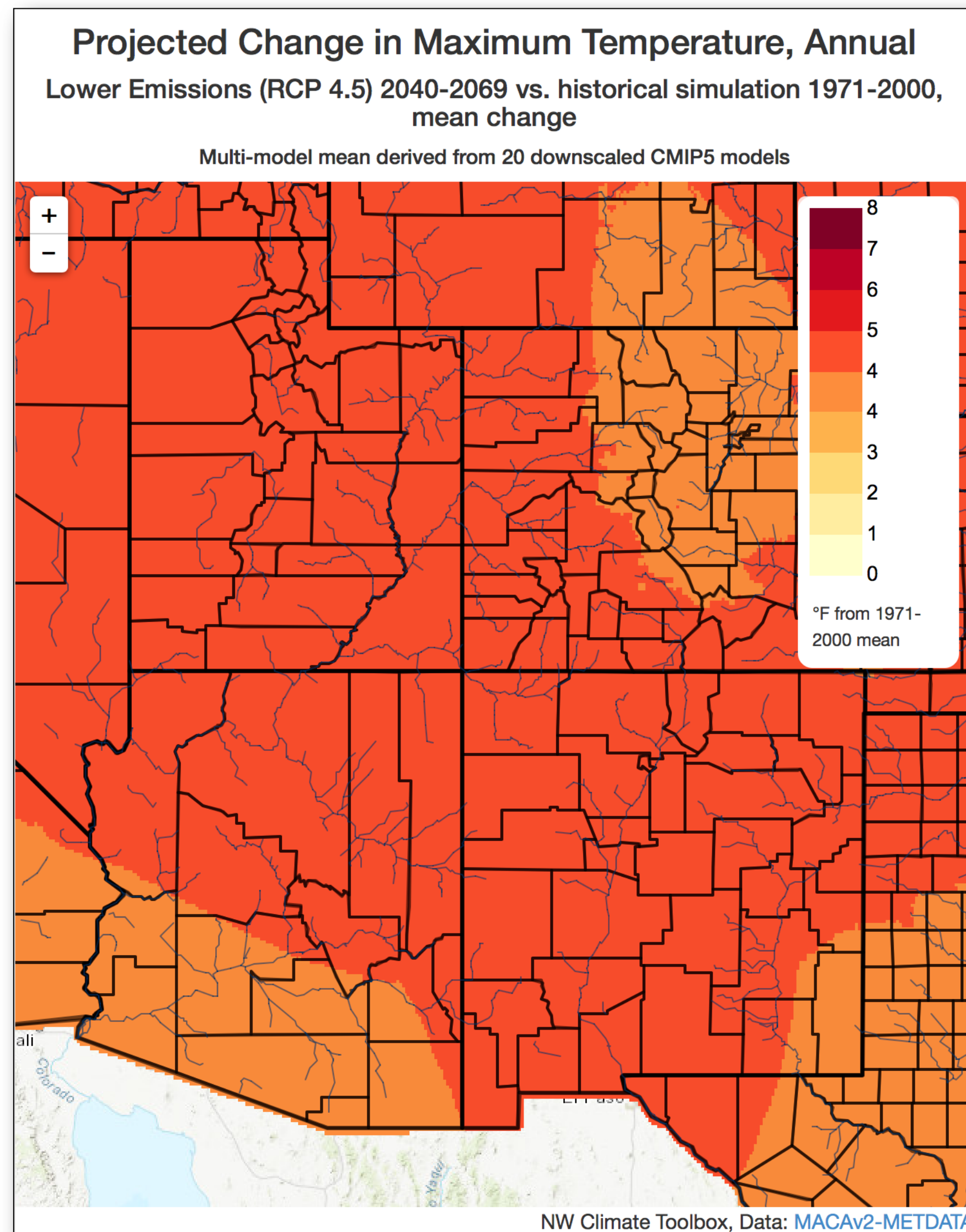
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Projected Change (2041-2070) of the Average Annual Number of Days the High Temperature is Greater than 100°F

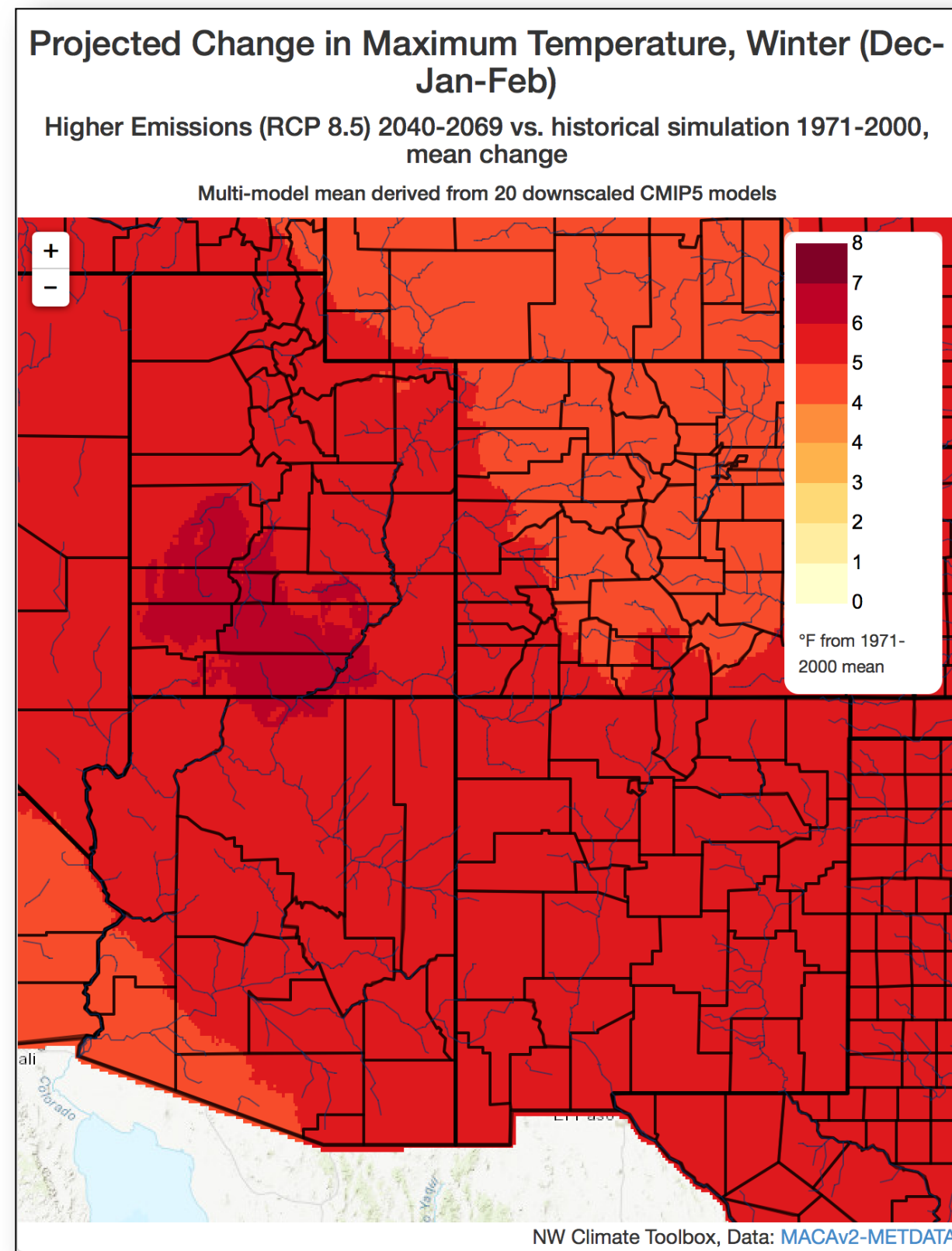


Example projections from the South Central CASC

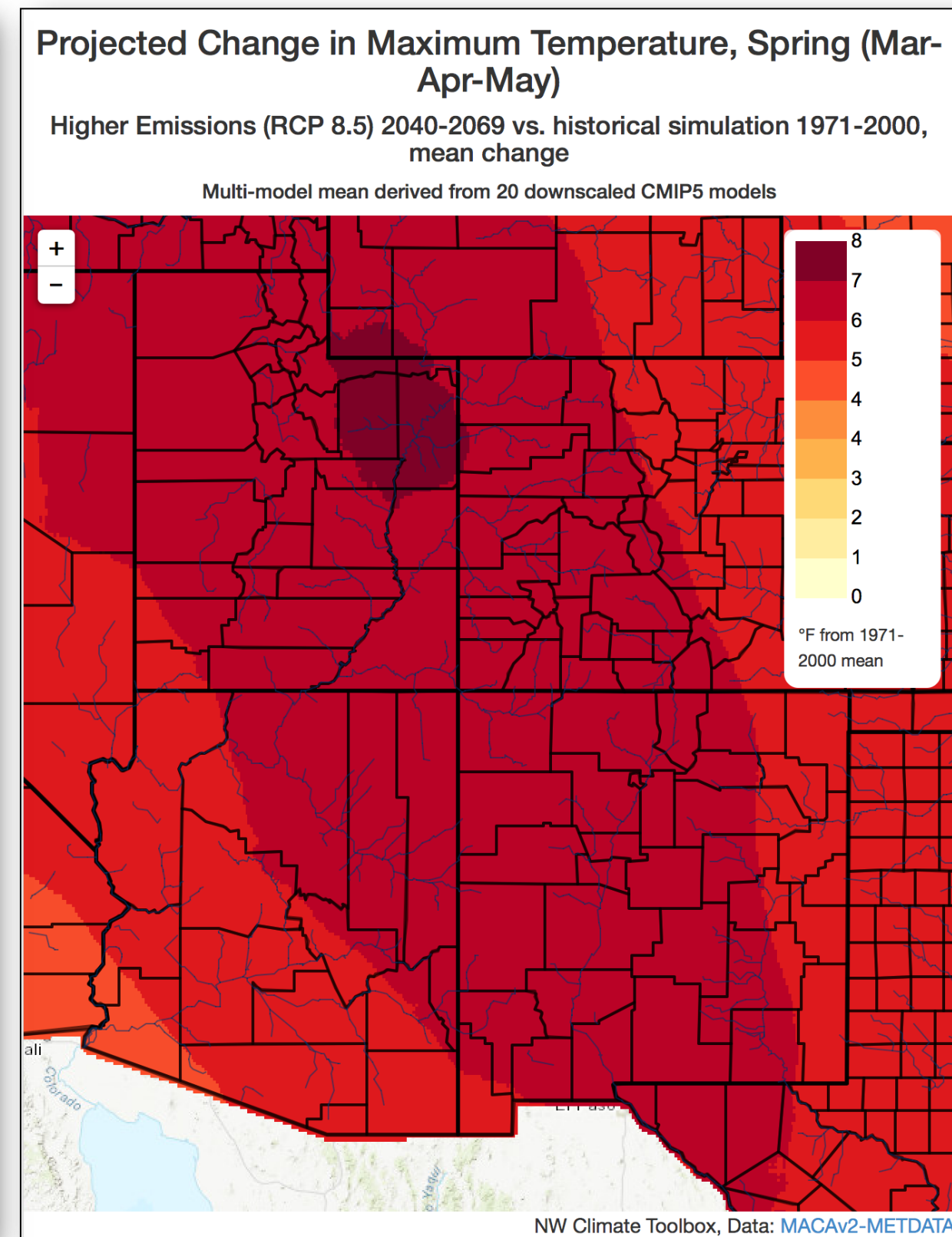
Daily high temperatures averaged for all days during the mid-century are projected to increase by up to 7°F in the region



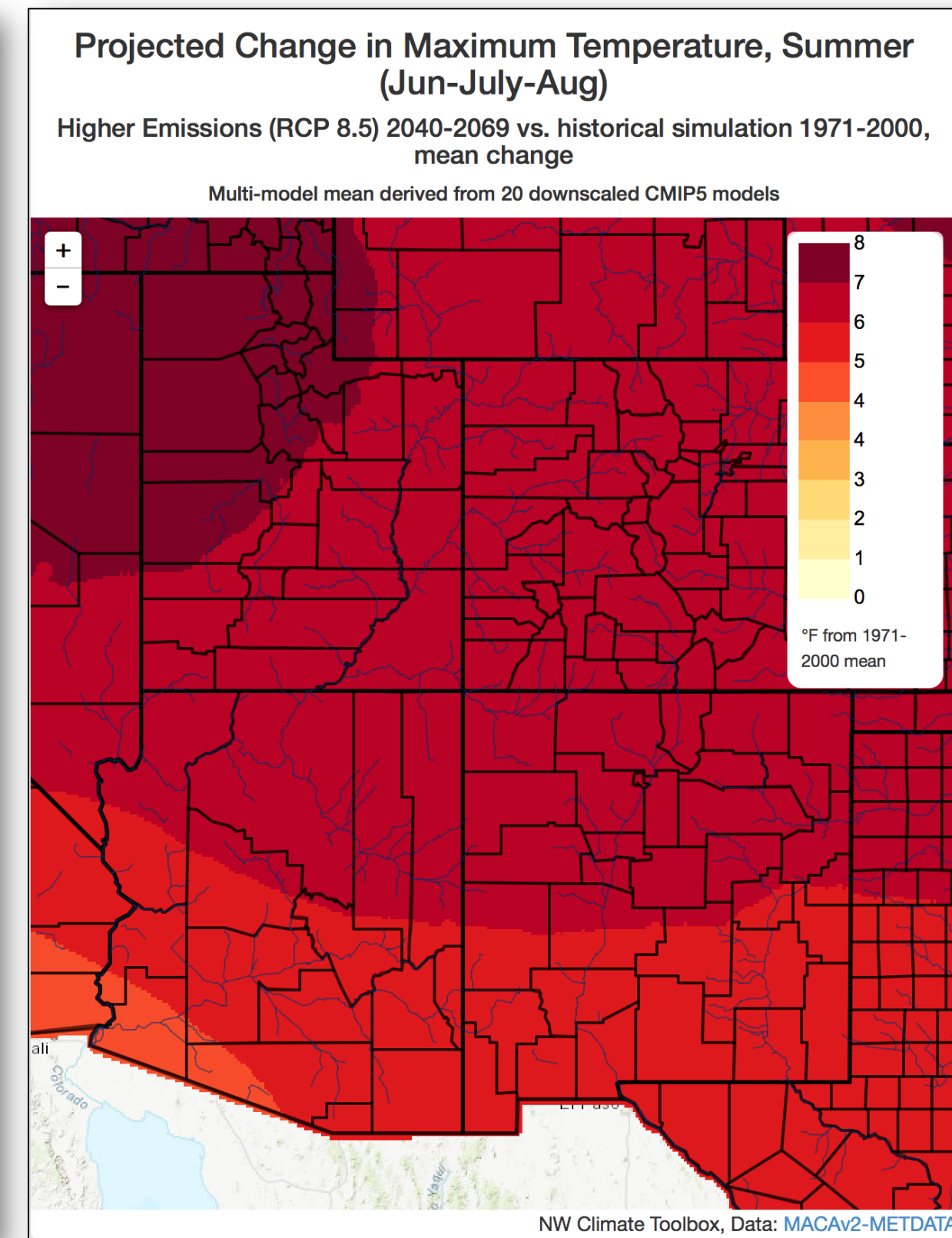
Winter



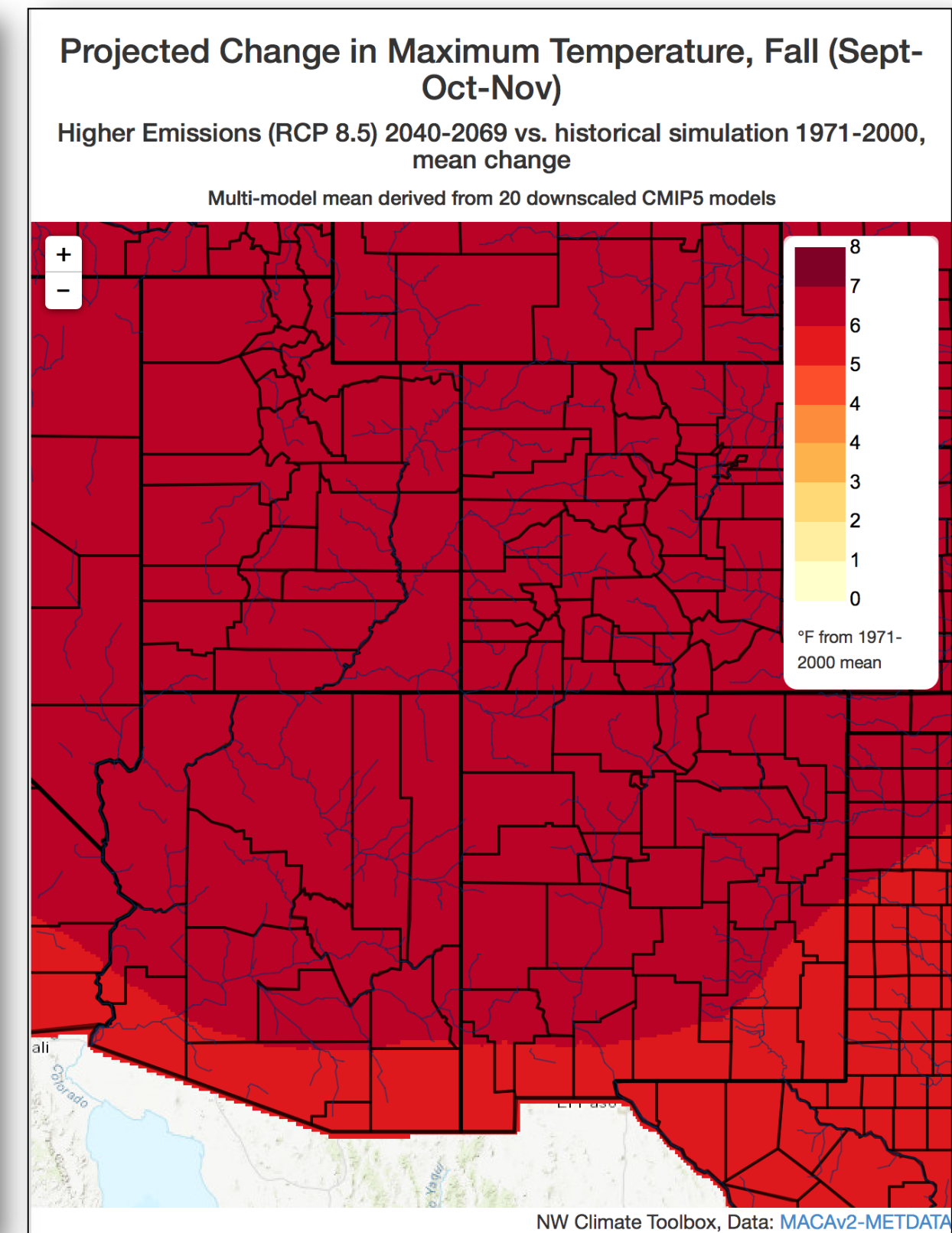
Spring



Summer



Fall

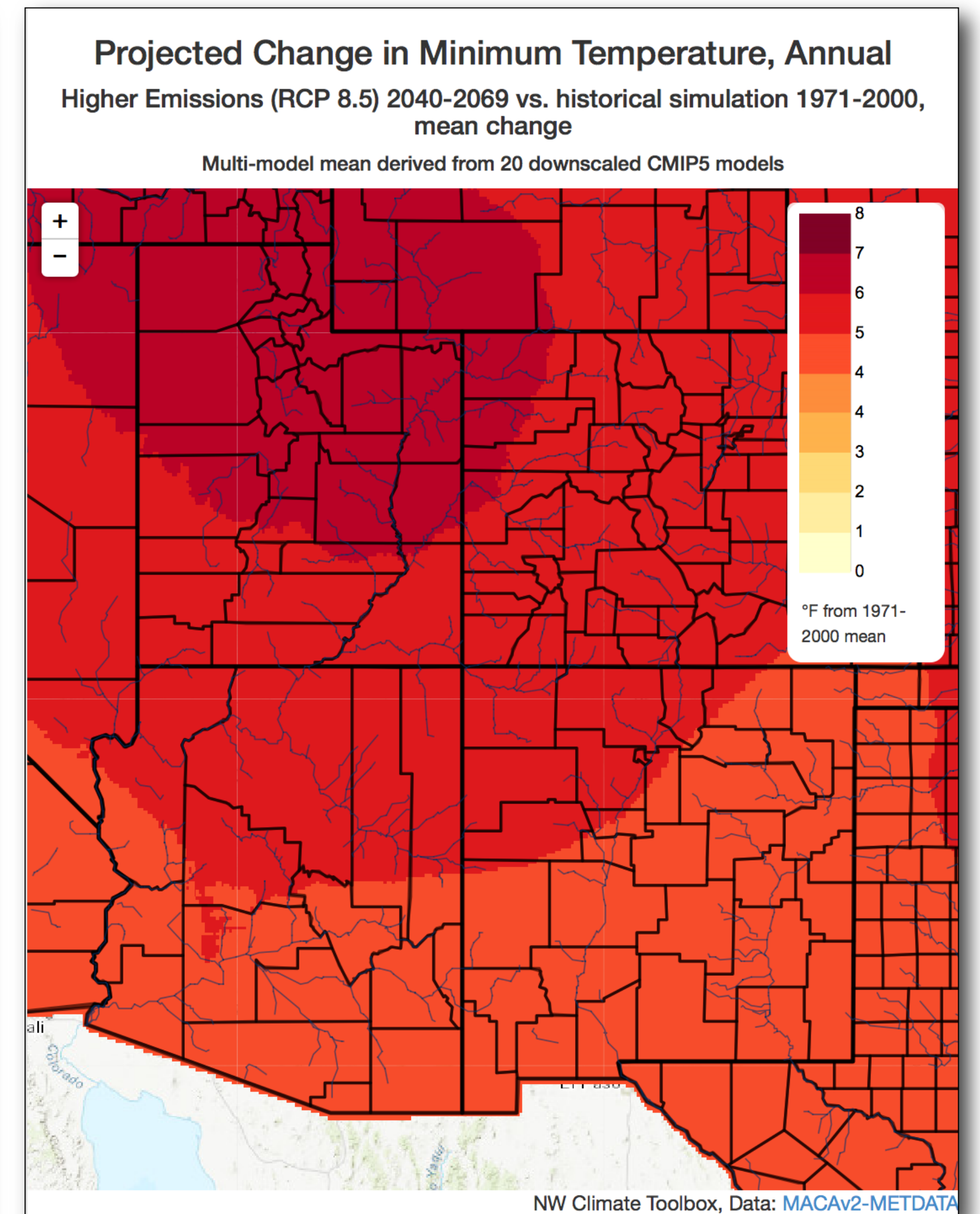
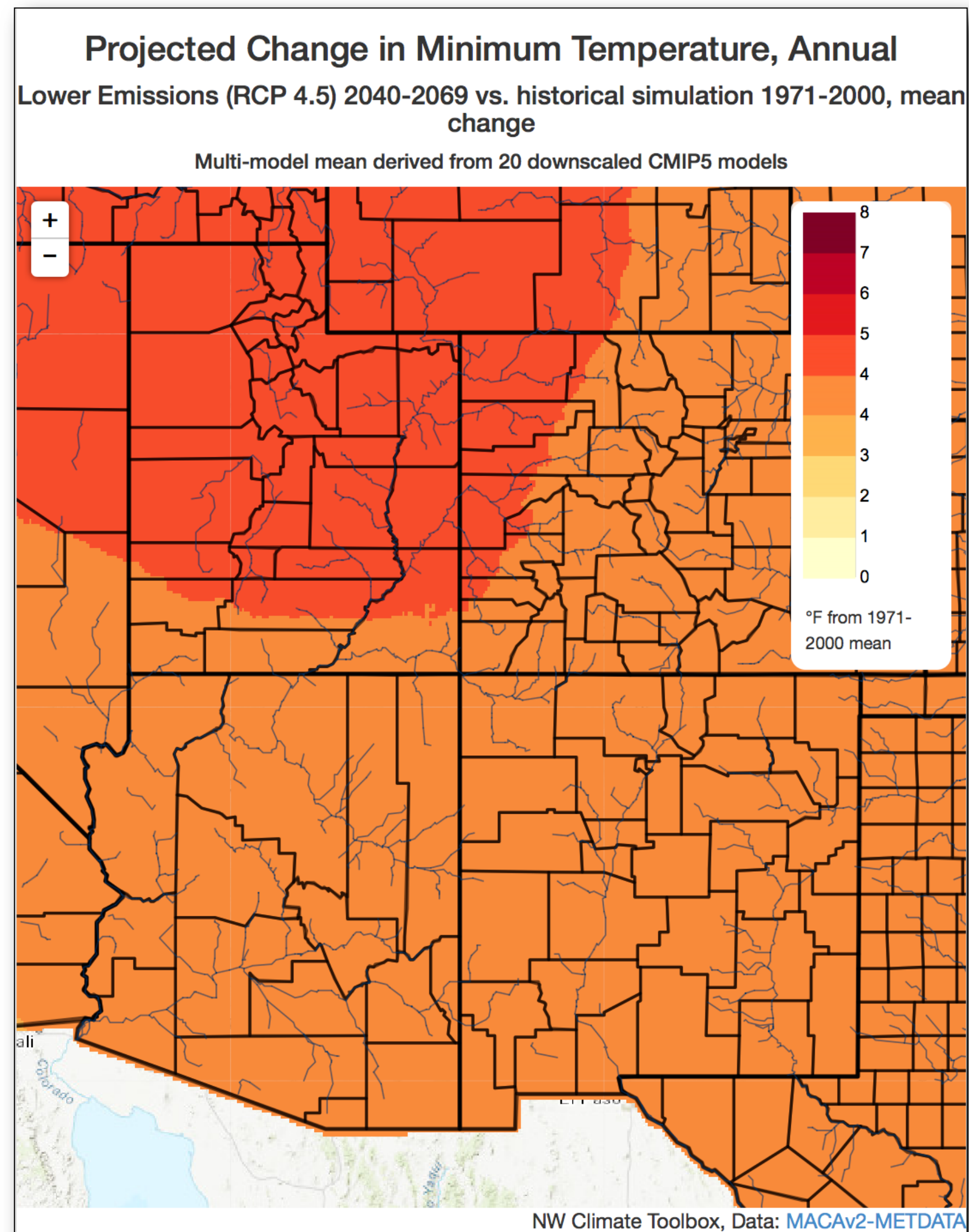


Daily high temperatures projected to increase more during summer than other seasons

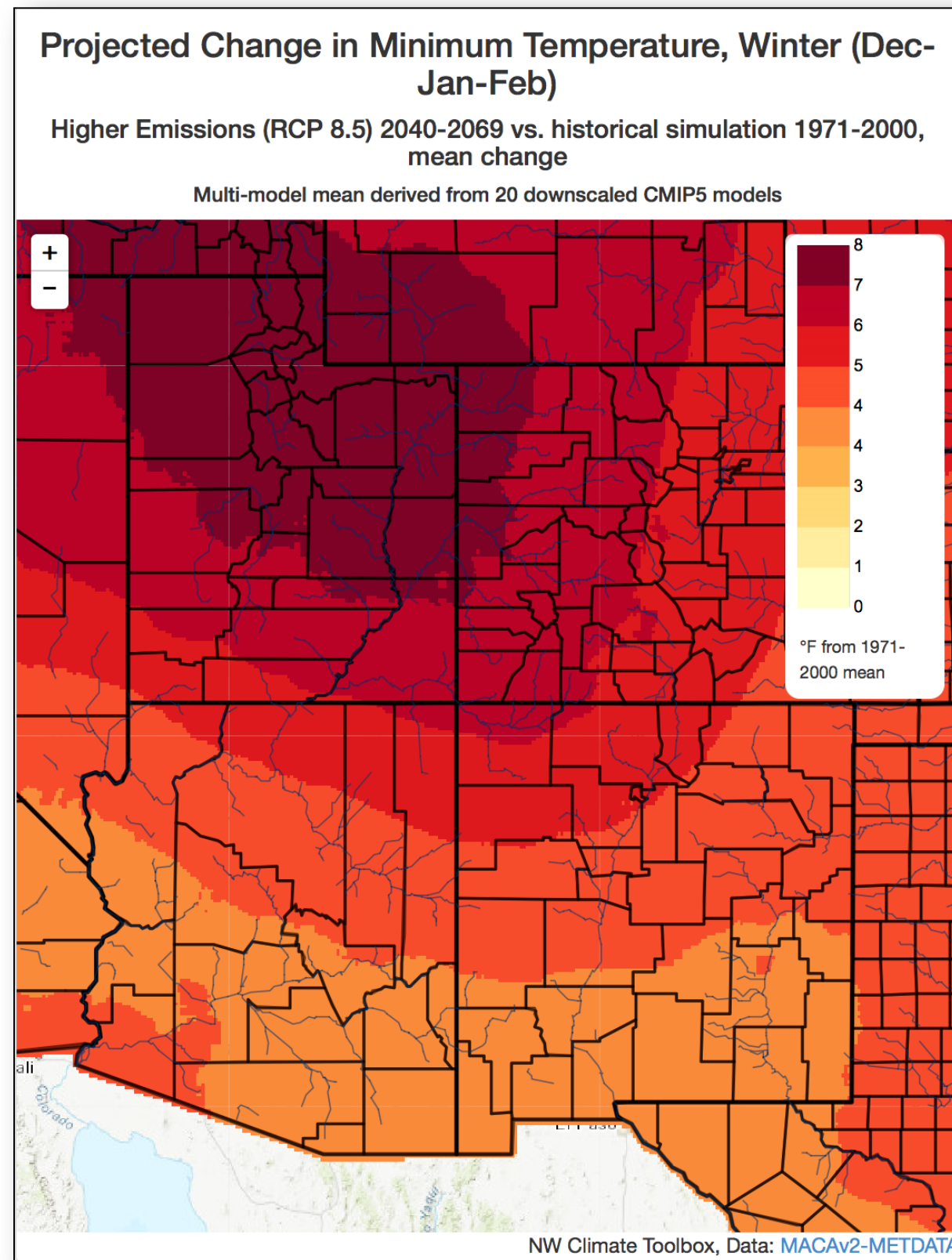


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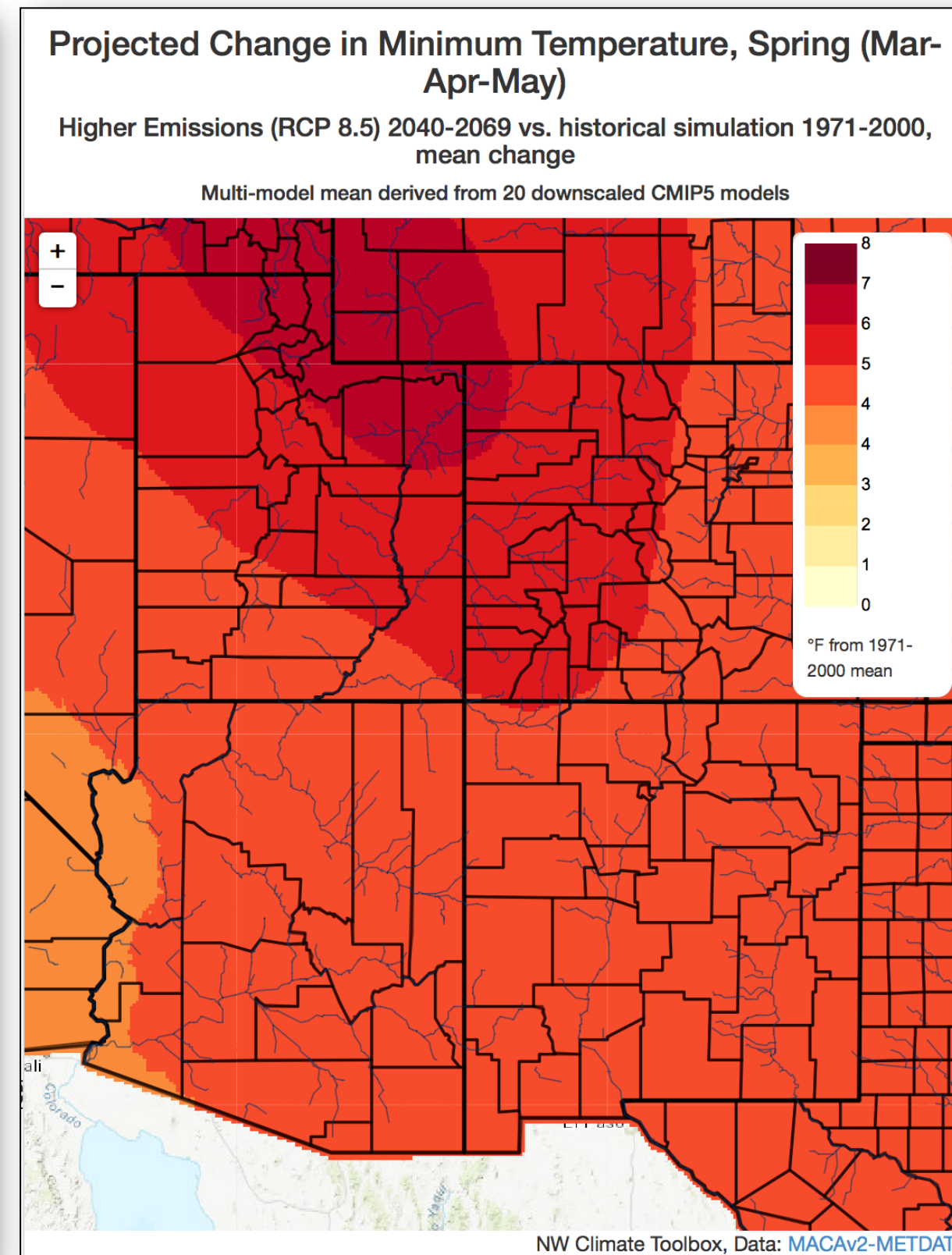
Daily low temperatures averaged for all days during the mid-century are projected to increase by up to 6°F in the region



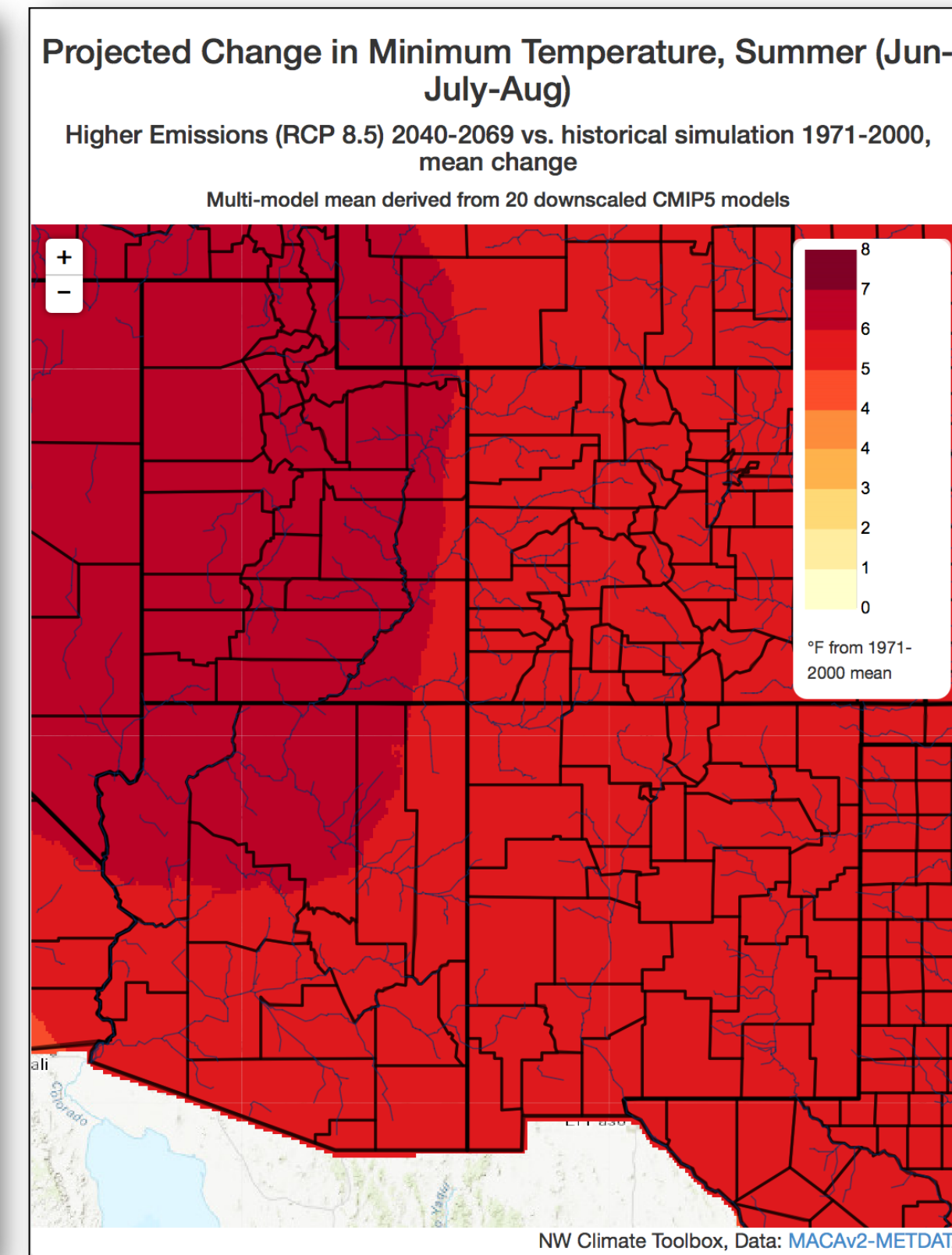
Winter



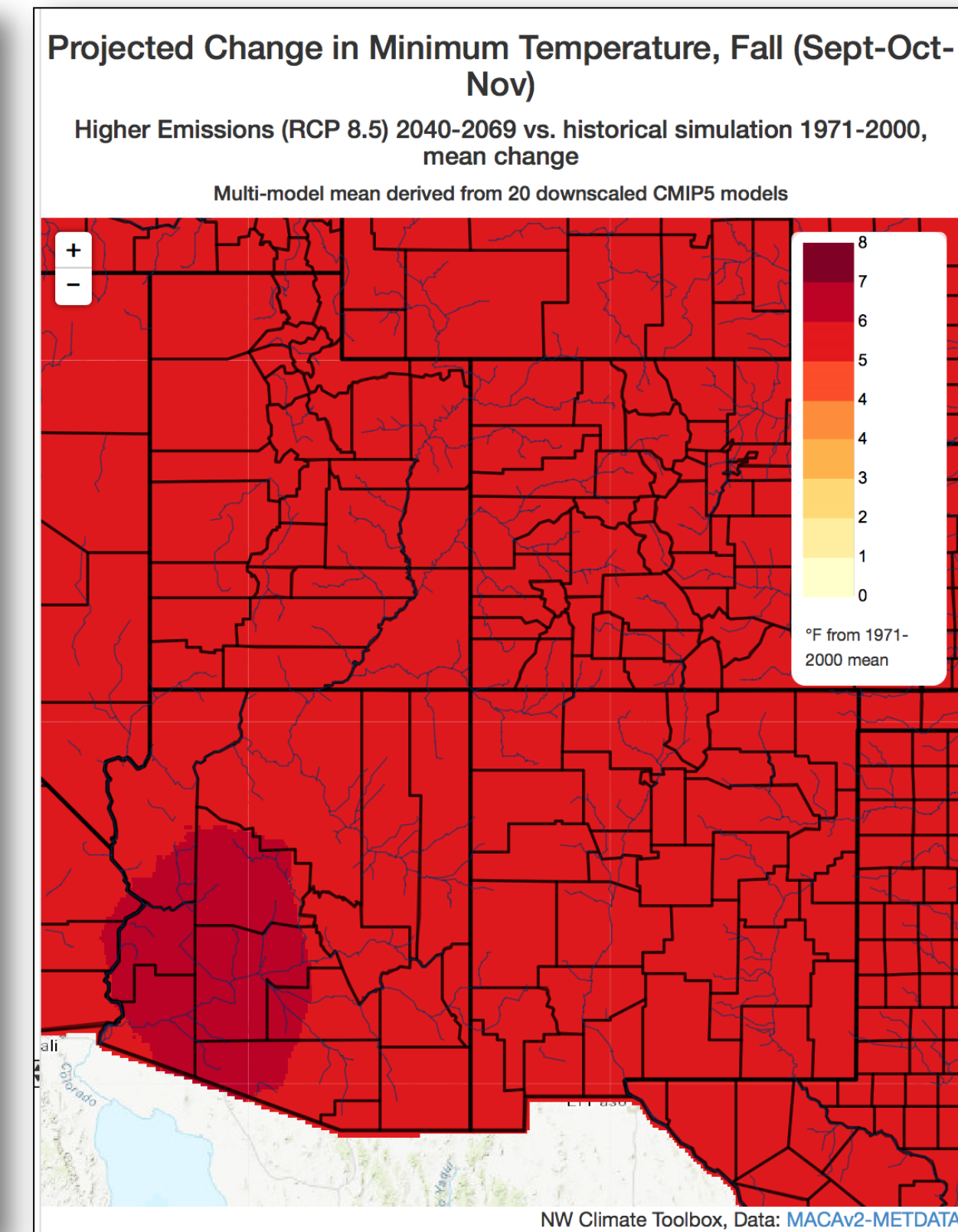
Spring



Summer



Fall

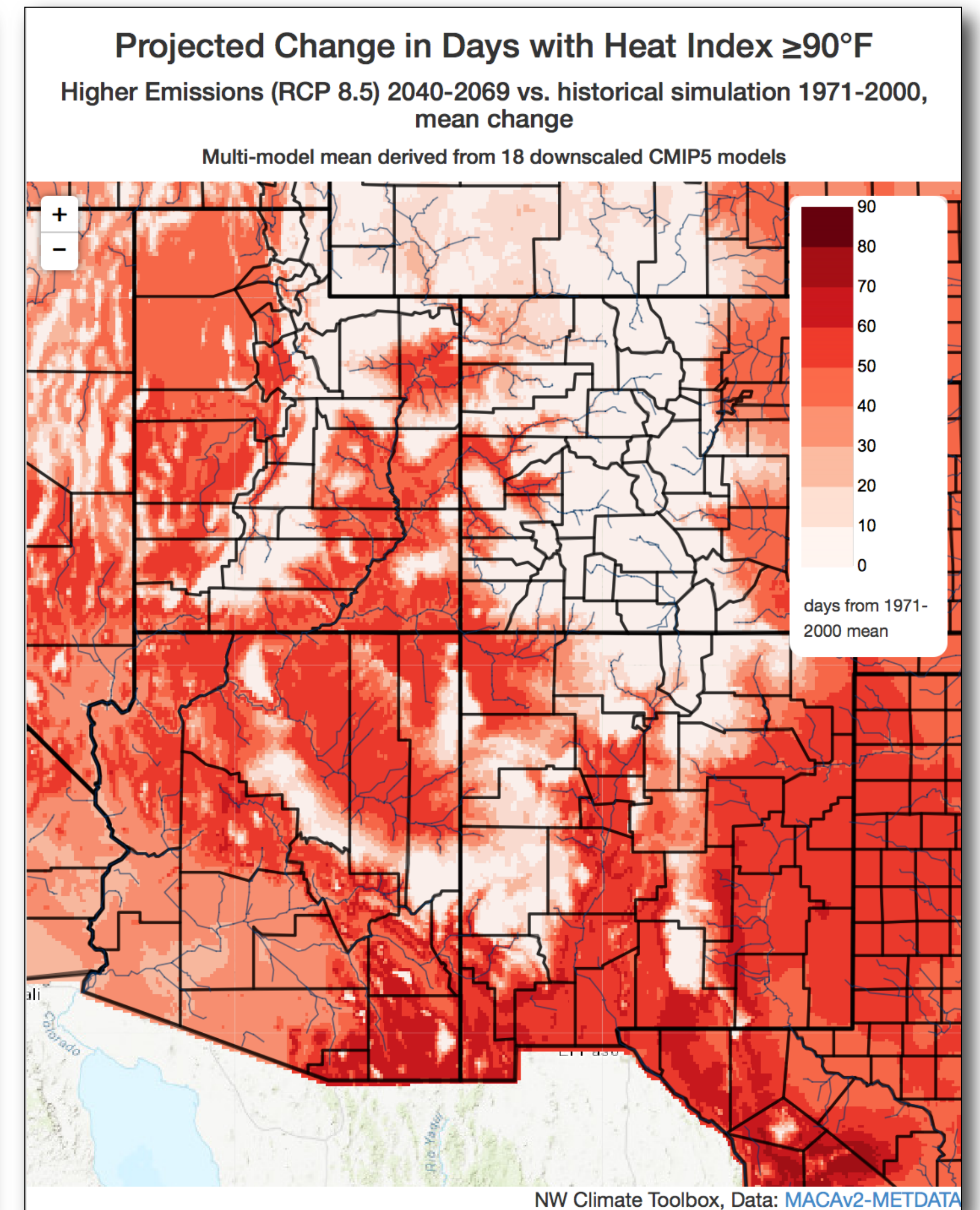
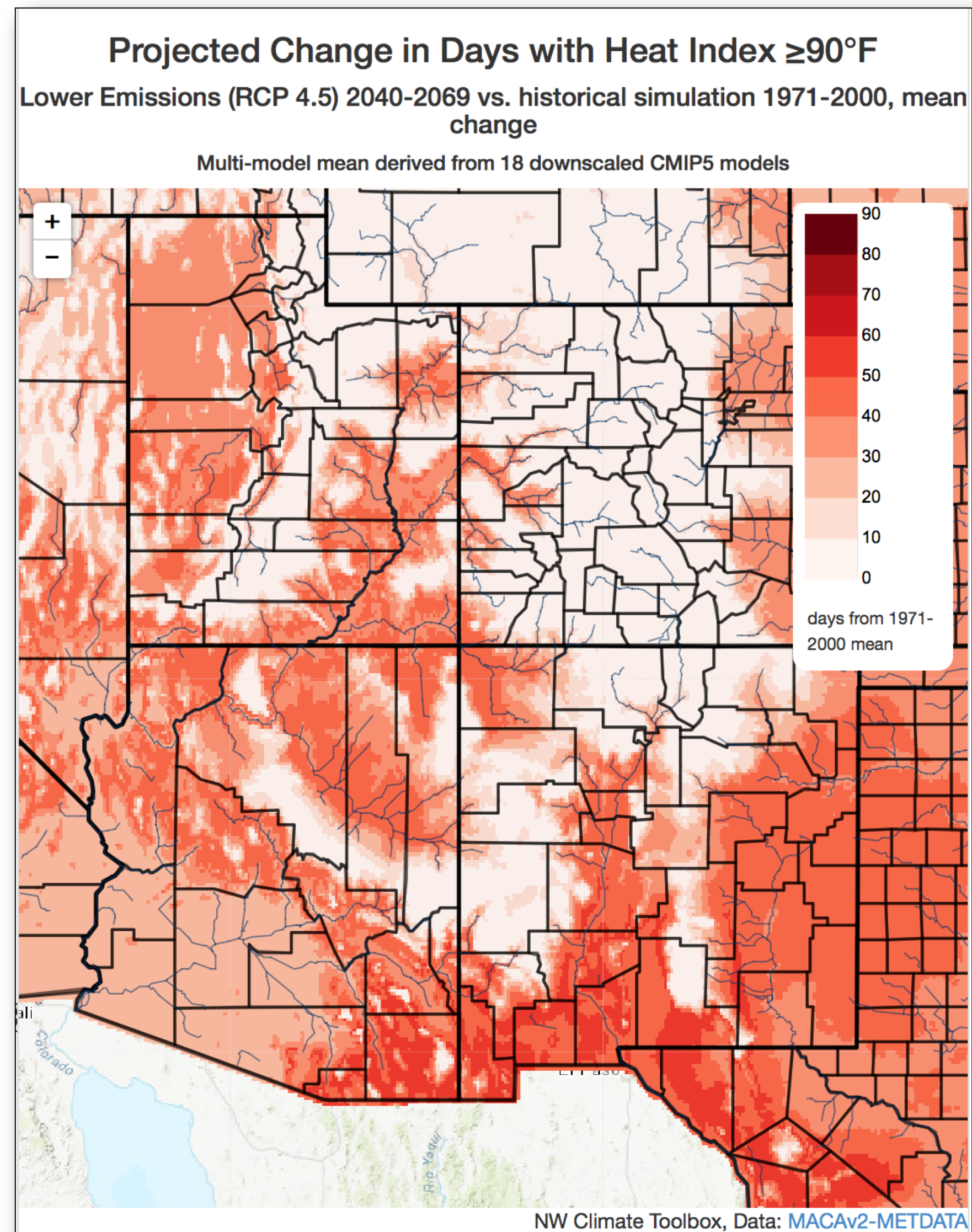


Daily low temperatures projected to increase more during winter than other seasons in northern part of Nation



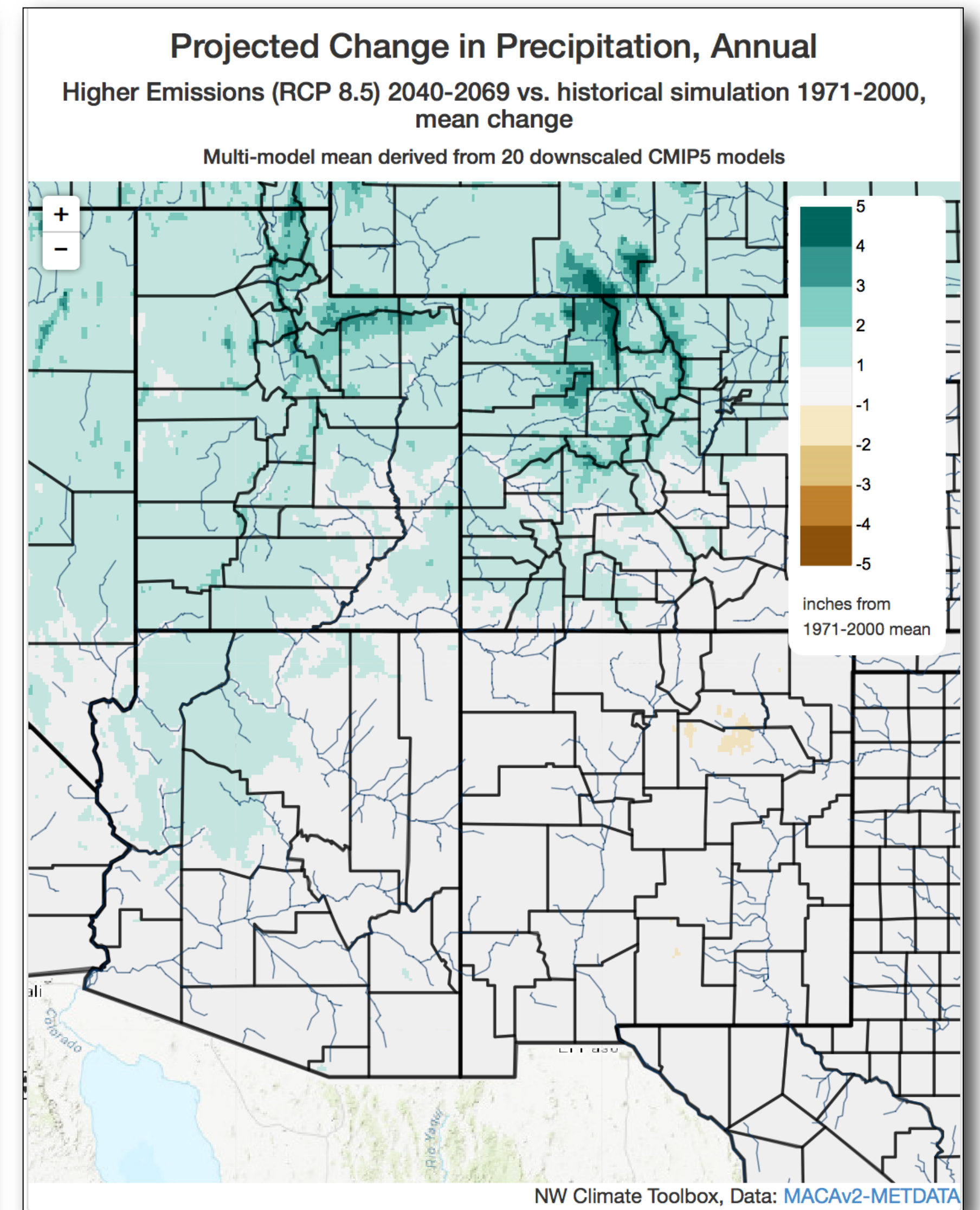
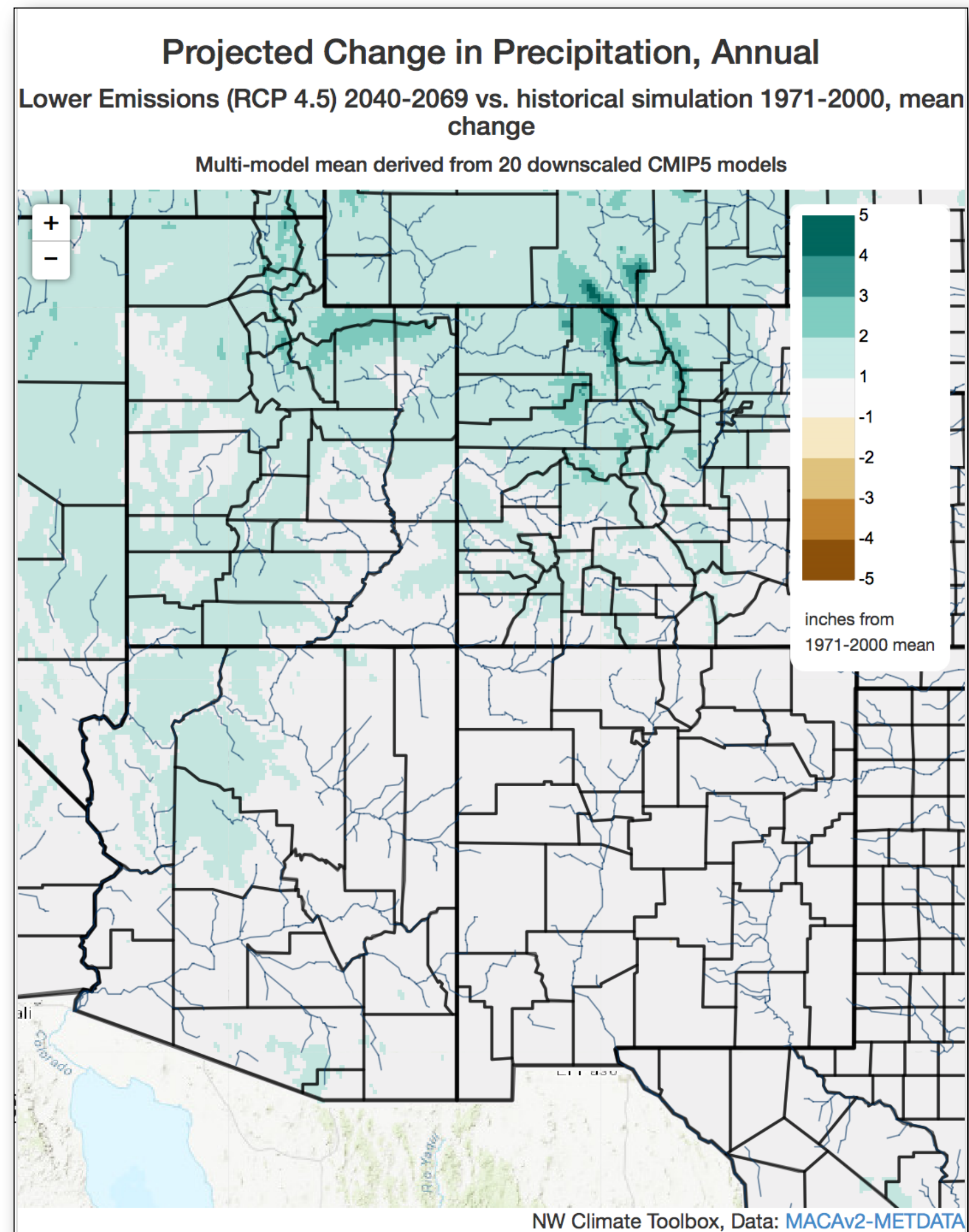
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The number of hot days (heat index $\geq 90^{\circ}\text{F}$) are projected to increase by up to 50 days by the mid-century



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Average annual precipitation during the mid-century is projected to slightly increase or stay the same across the region



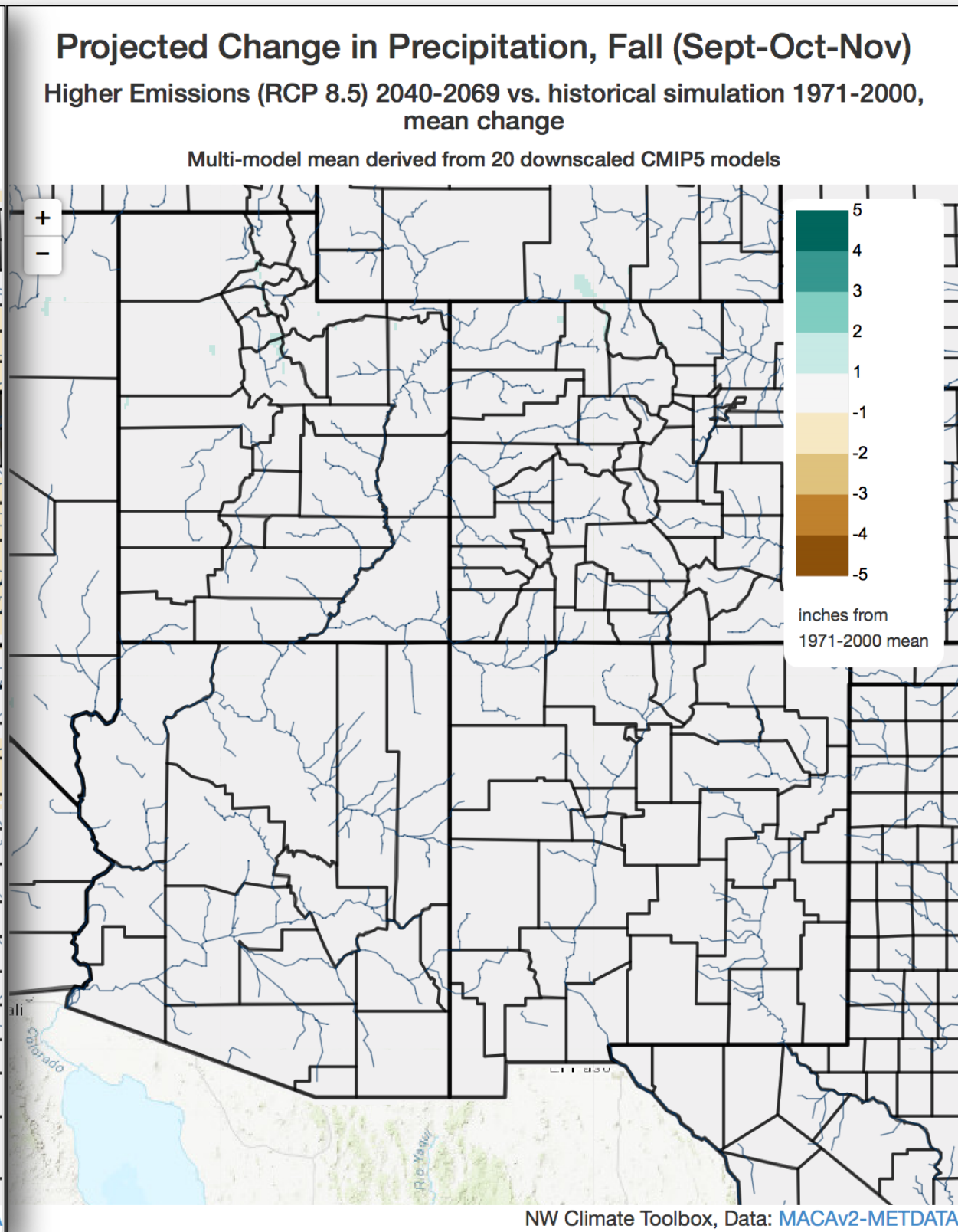
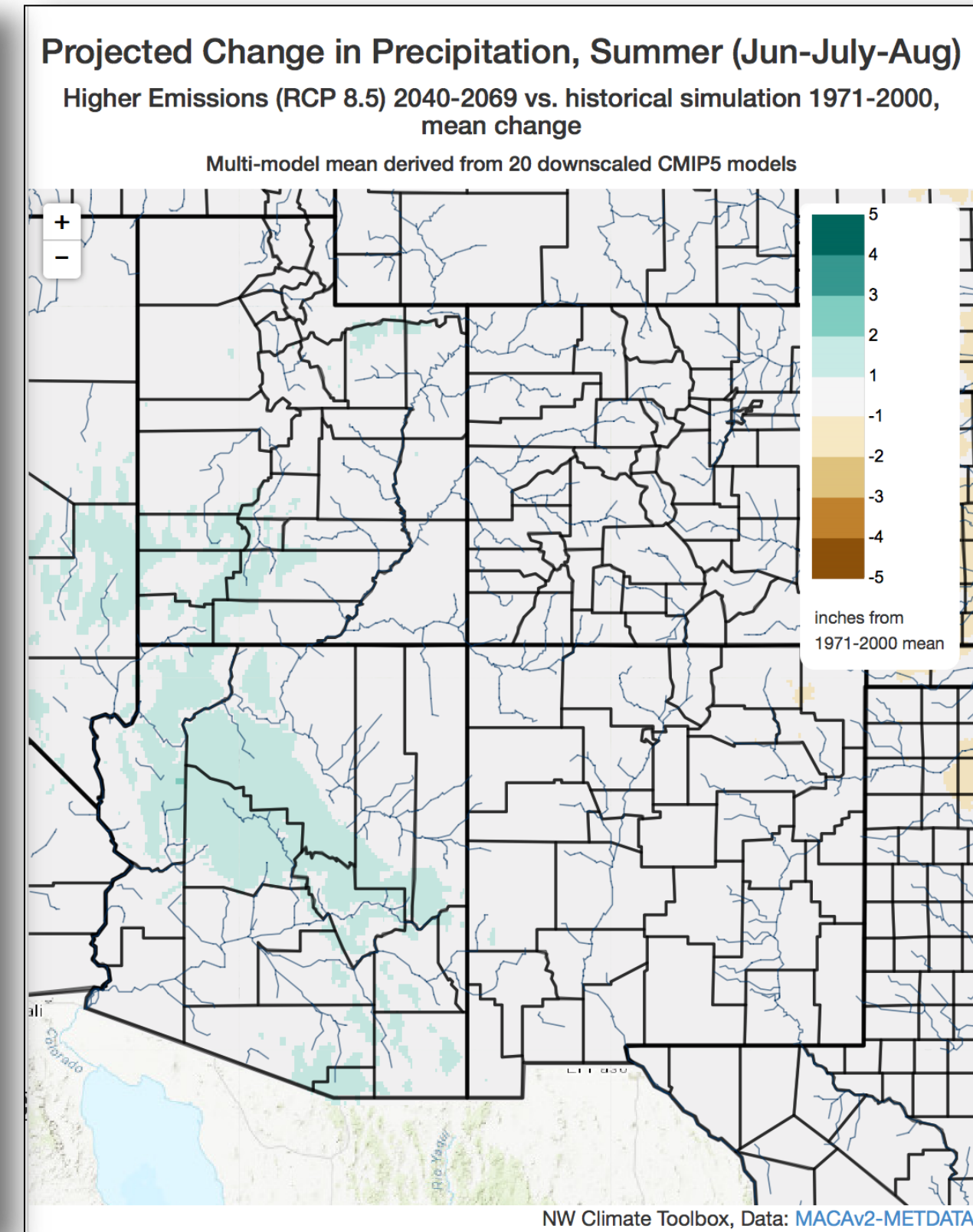
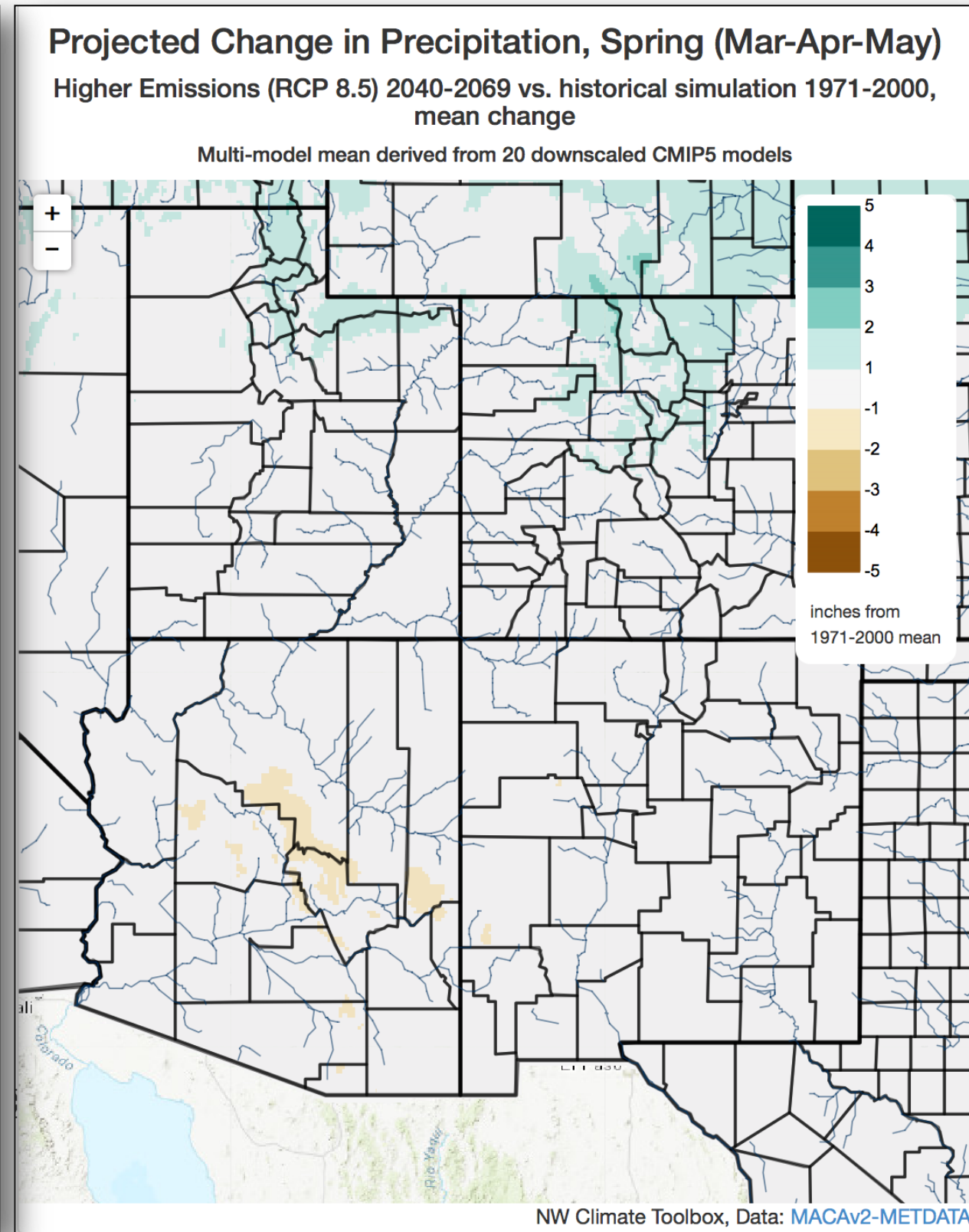
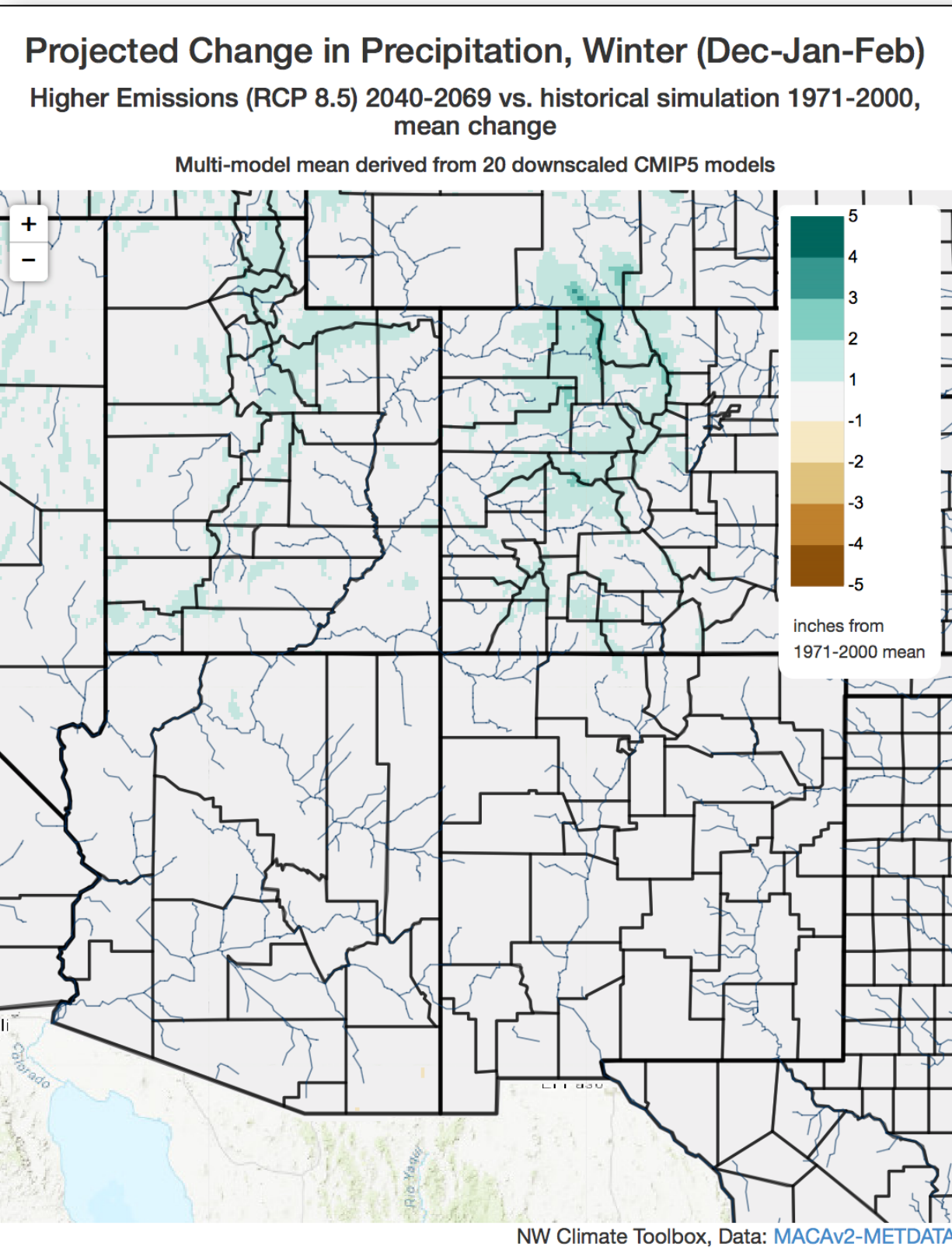
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Winter

Spring

Summer

Fall



Seasonal precipitation during the mid-century is projected to stay about the same across the region



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COMMENTS ON PROJECTIONS

- Projections are not forecasts or predictions
- Examples were created based on input from users prior to seeing our results — interest in other maps or graphics should be sent to info@southcentralclimate.org or visit us via Facetime, Skype, in person, etc. to discuss needs
- We have end-of-century projections too
- Only one downscaling method was used here, and we plan to add two more — stay tuned for those results!

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- Our web page: <http://southcentralclimate.org>
- National Climate Assessment on the web:
<https://www.globalchange.gov/nca4>
- Some of our partners:
 - <http://www.southernclimate.org>
 - <http://climate.ok.gov>
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