

Climate change and the Columbia River Gorge



Philip Mote

Oregon Climate Change Research Institute

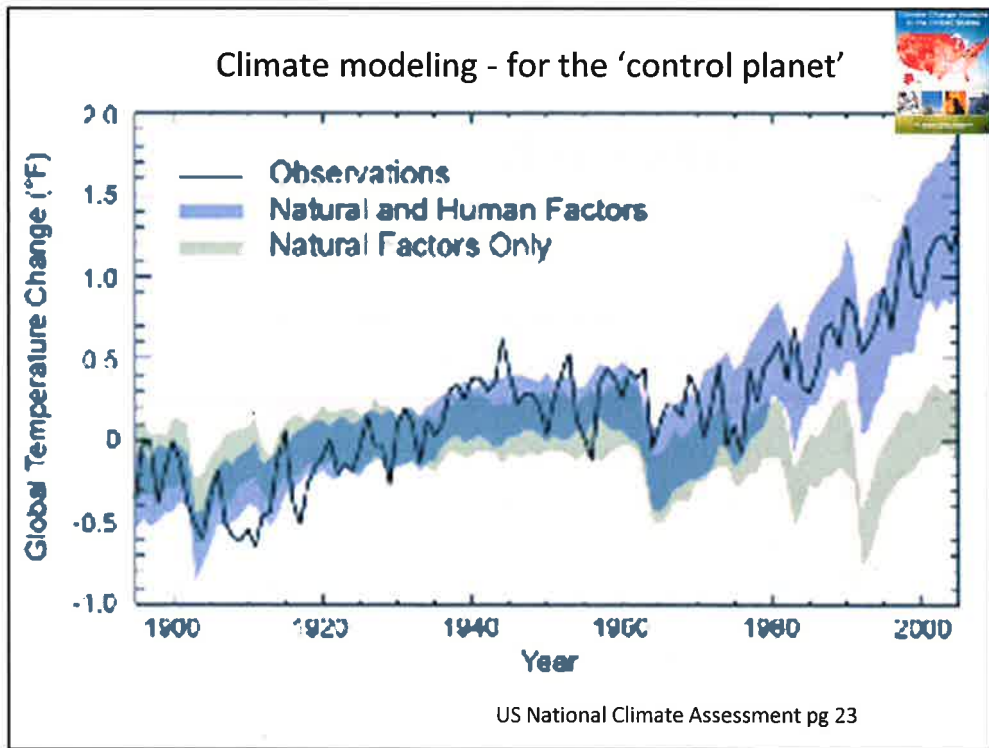
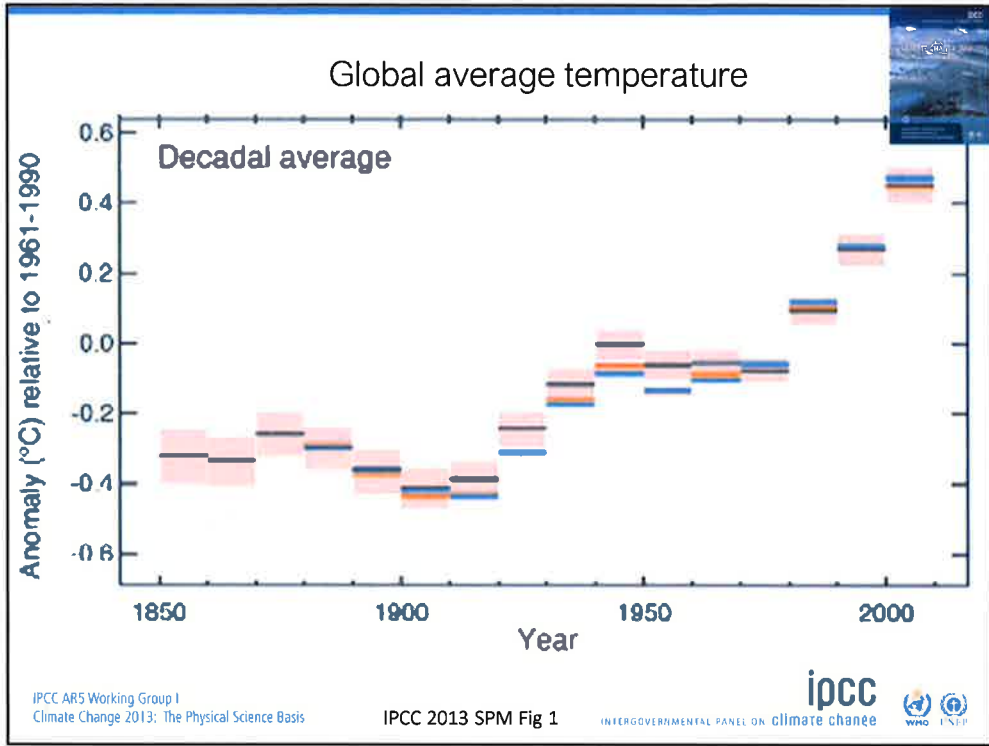
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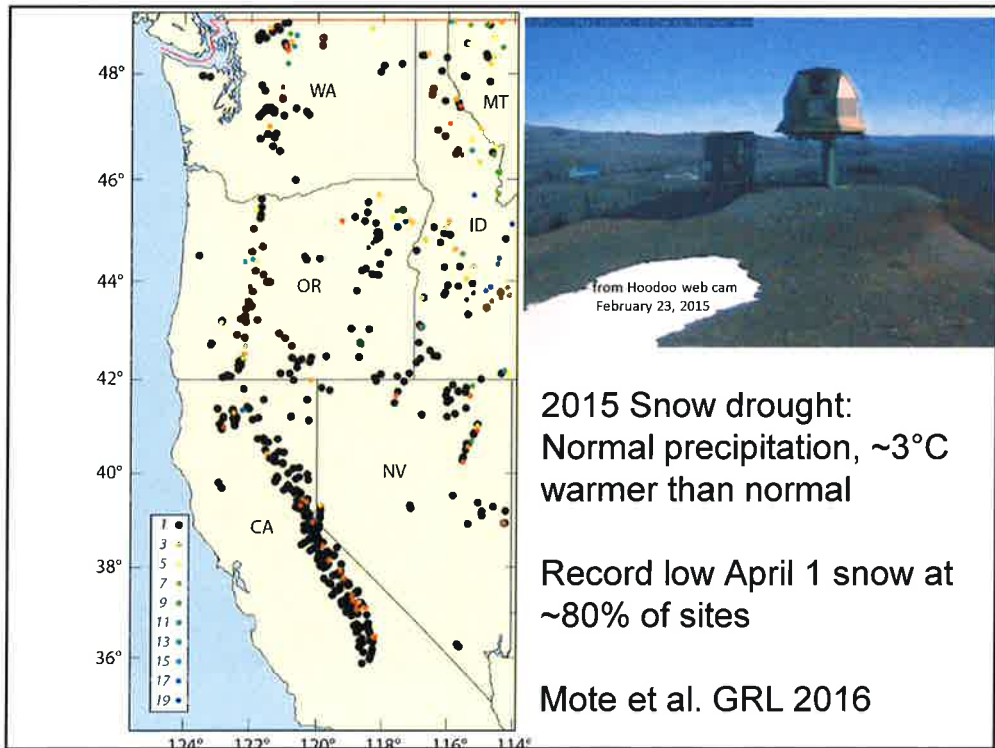
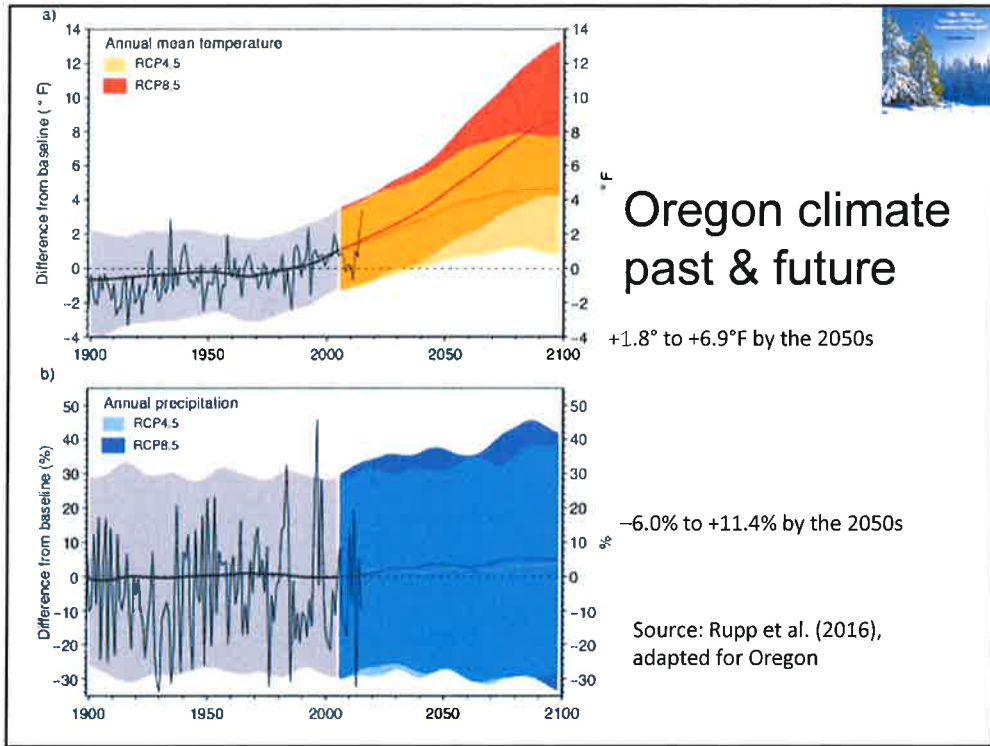
@pwmote

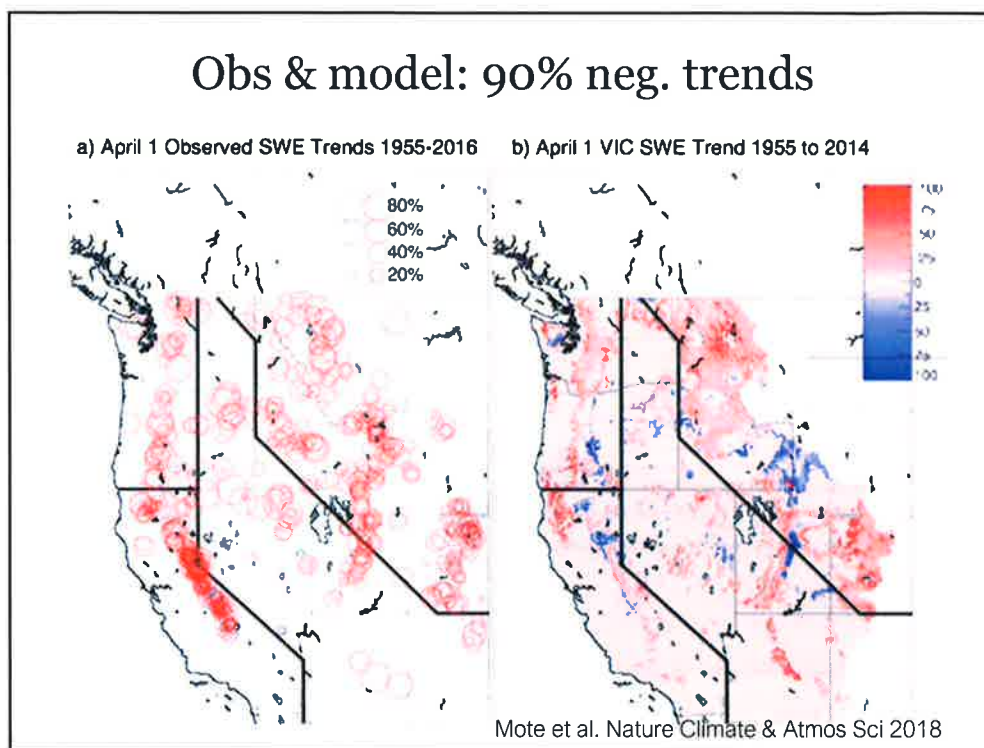
Oregon Climate Change Research Institute

- Place-based research institute created by Oregon state legislature
- 11 staff and students, ~80 collaborators
- Home of Oregon Climate Service
- Home of NOAA Climate Impacts Research Consortium
- Required by law to produce an assessment report periodically (OCAR3, Jan 2017)









Columbia River Treaty

2014/2024 Review

Columbia River Treaty
[Overview and History](#)
[Related Links](#)
[Maps](#)

Treaty Review
[Process](#)
[Technical Results](#)
[Other studies/papers](#)

Stakeholder Engagement
[Upcoming Meetings](#)
[Public Comment Opportunities](#)

Regional Recommendation
[Working Draft](#)
[Draft Regional Recommendation](#)
[Regional Recommendation](#)

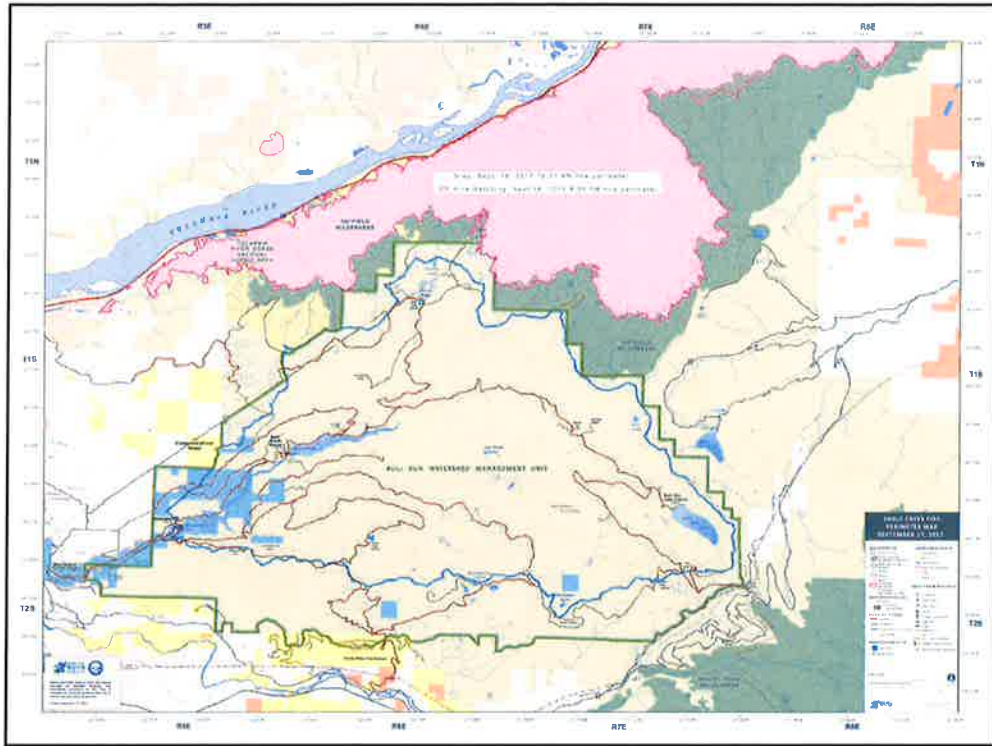
[Canadian/BC Hydro Info](#)

[Contact us](#)

What is the 2014/2024 Columbia River Treaty

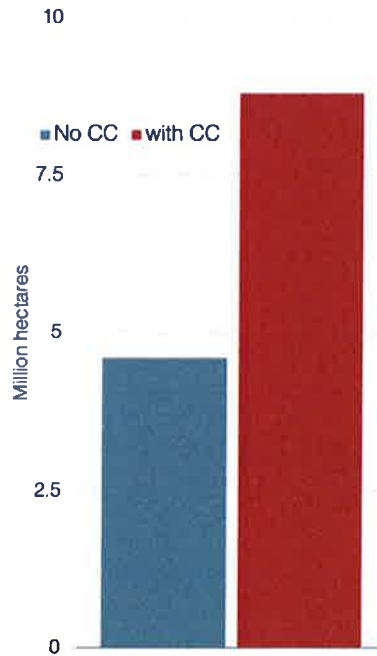
September 16, 2014, marks the 50th anniversary of the ratification of the Columbia River Treaty, an international agreement between Canada and the United States for the cooperative development and operation of the water resources of the Columbia River Basin for the benefit of both countries.
[To view the full press release announcing the Treaty's 50th anniversary, click on the article below.](#)

CRT 50 year News Release

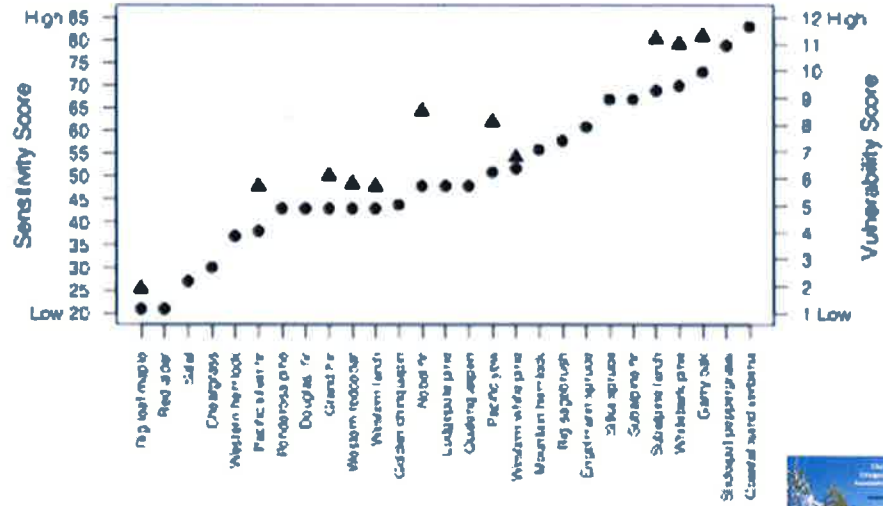


Human-caused climate change doubled the area burned in western US since 1985

Abatzoglou and Williams (2016) redrawn by P Mote



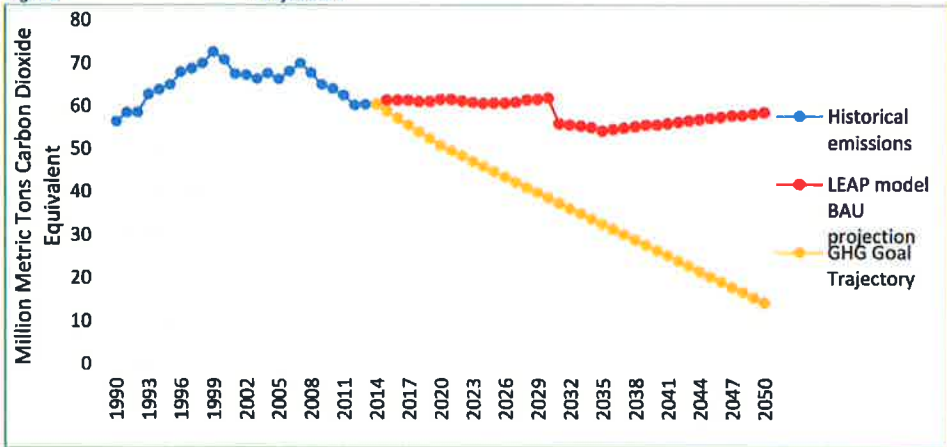
Climate Sensitivity of PNW Plant Species



plotted by Meghan Dalton with data from Case et al. 2015



Figure 1: Statewide Emission Projection



Oregon Global Warming Commission 2017 Biennial Report to the Legislature

Forest carbon

- Oregon forests store ~10 billion tons CO₂
- Fires released 1.5-4mmT per year in 2001-05 and 2011-15 (vs 60 mmT human emissions)

Conclusions

- Climate-related risks becoming more evident
- Intersections between reducing emissions & reducing risk

