

Projecting Climate in Arctic Alaska



George A. Parks/Alaska's Digital Archives

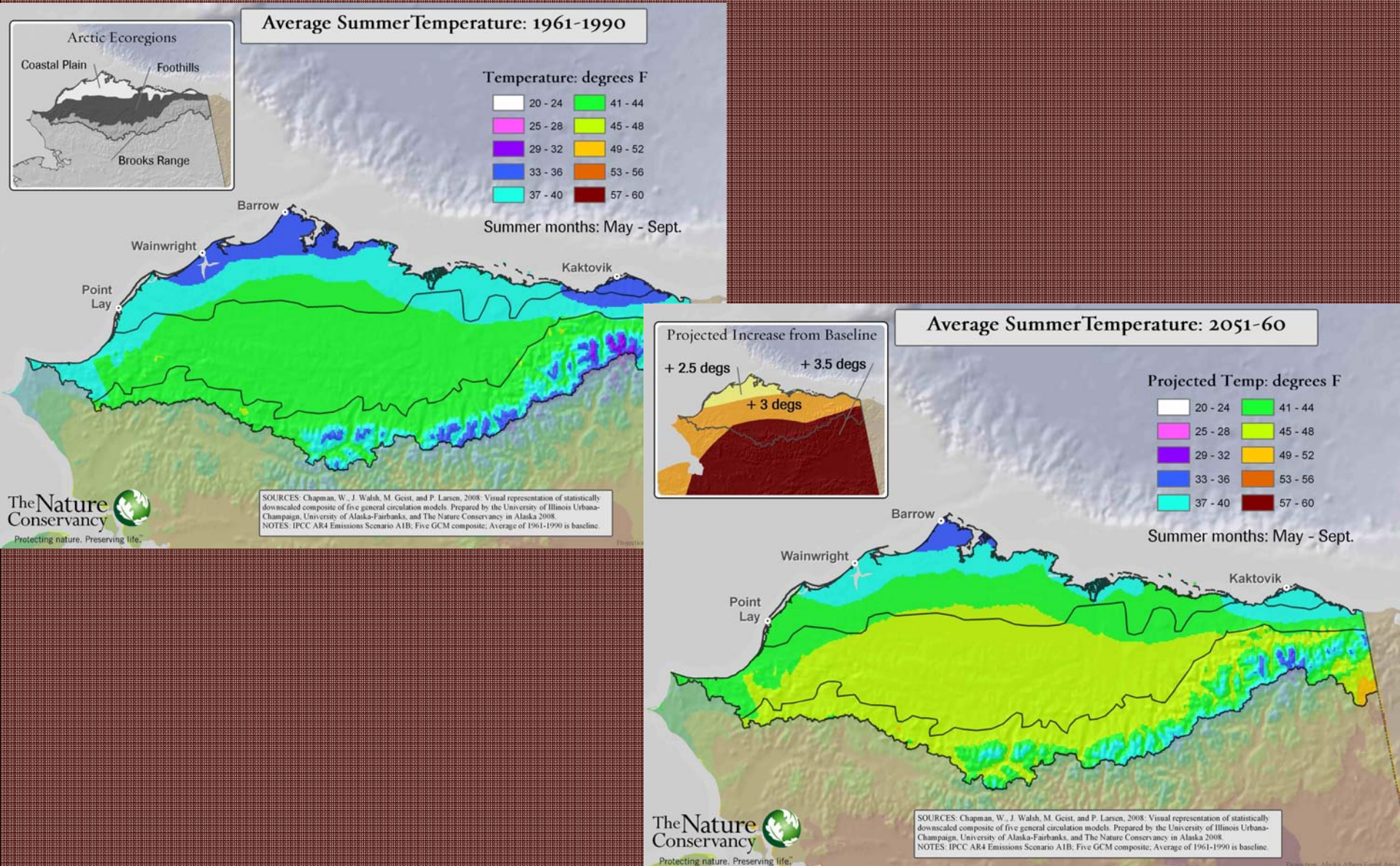
The Nature
Conservancy 
Protecting nature. Preserving life.™

WildREACH Workshop
17 November 2008

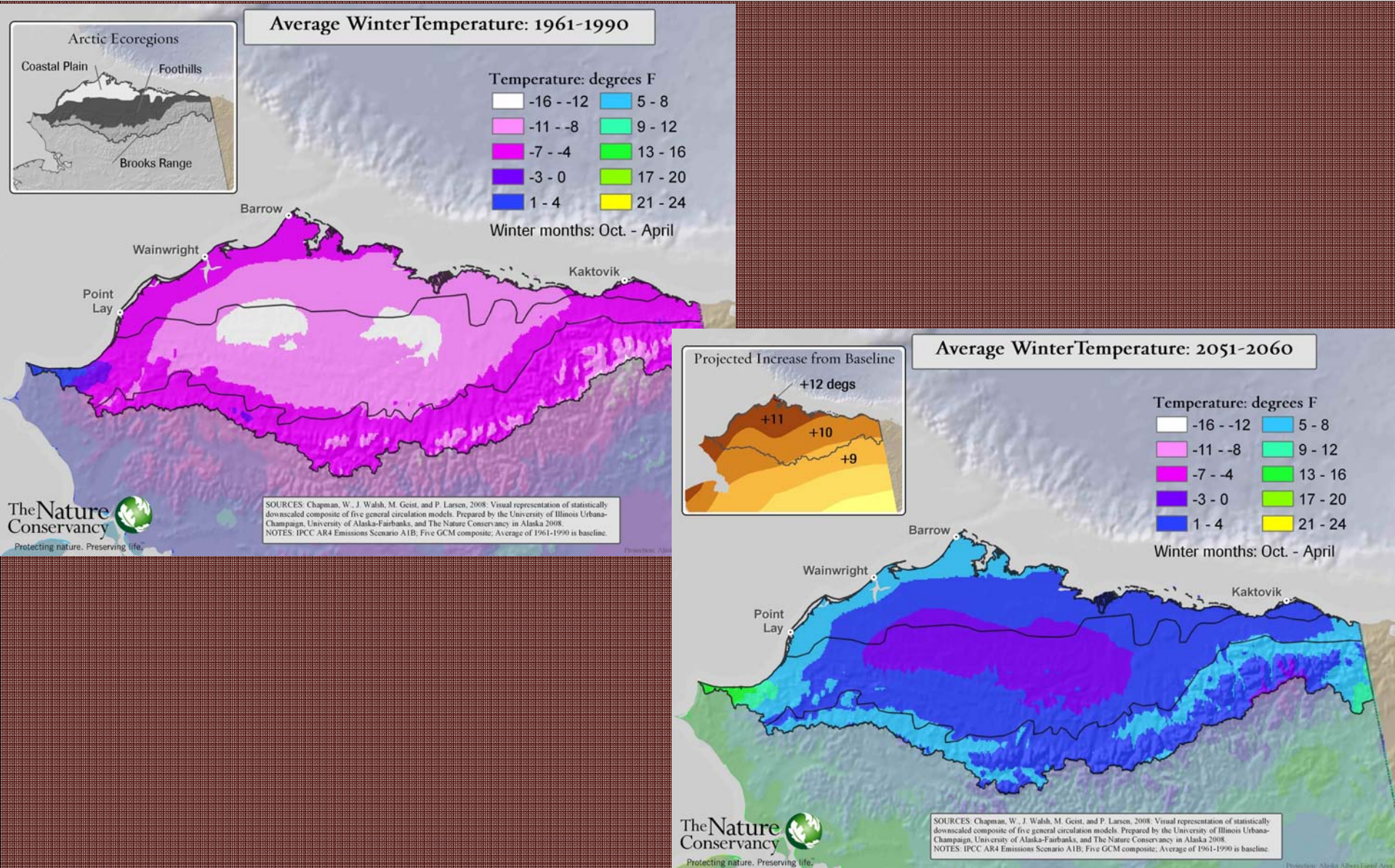
Presentation Outline

1. Arctic Temperature Projections
2. Arctic Precipitation Projections
3. Misc. Thoughts on Model Confidence
4. Arctic Water Availability Concerns
5. Timing of Seasons
6. Next Steps
7. Acknowledgements

Projecting Arctic Temp. (May-Sep)

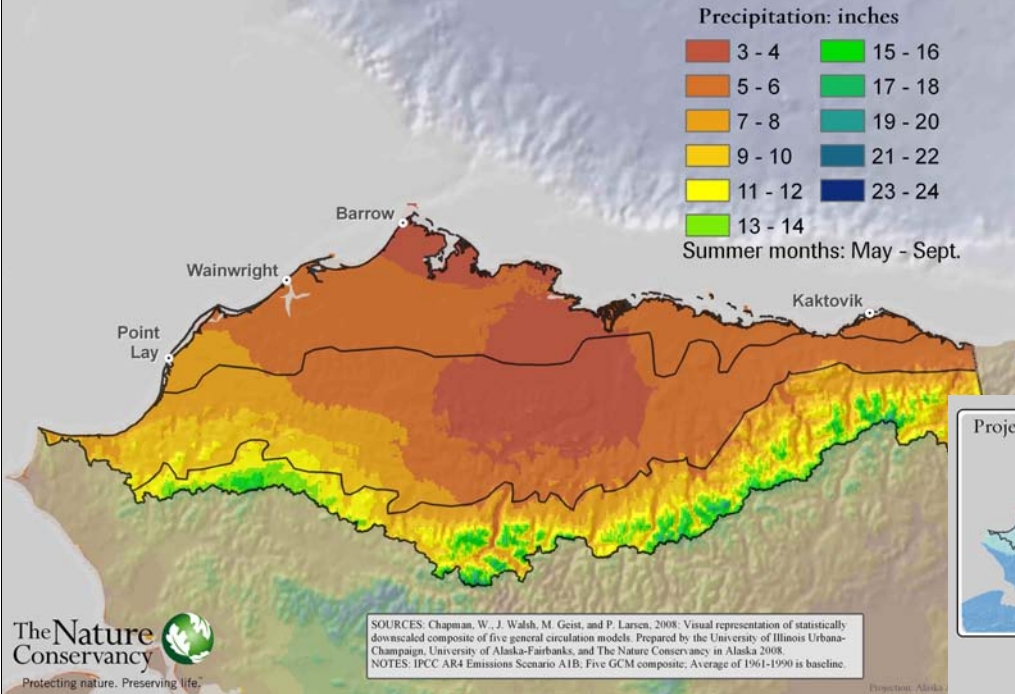


Projecting Arctic Temp. (Oct-Apr)



Projecting Arctic Precip. (May-Sep)

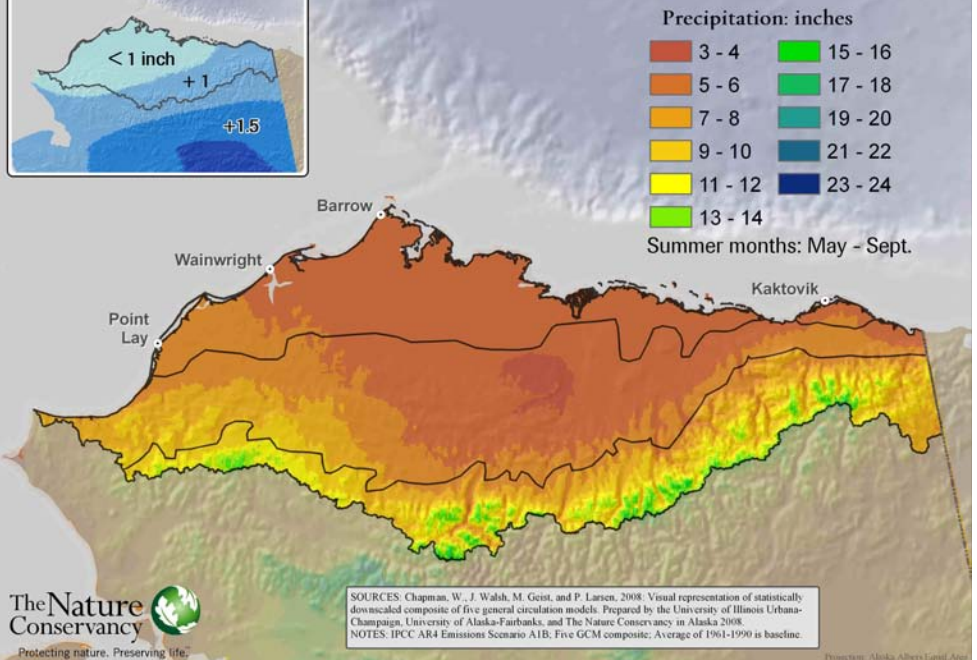
Average Summer Precipitation: 1961-1990



Projected Increase from Baseline

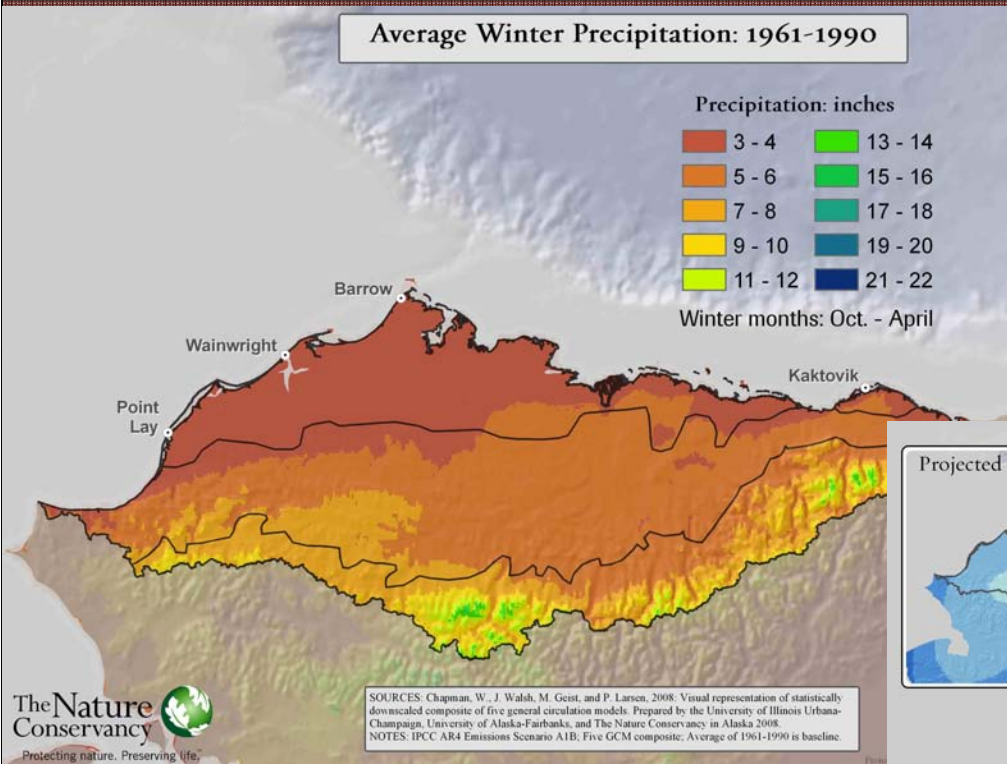
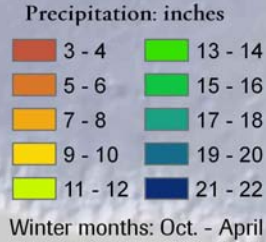


Average Summer Precipitation: 2051-2060

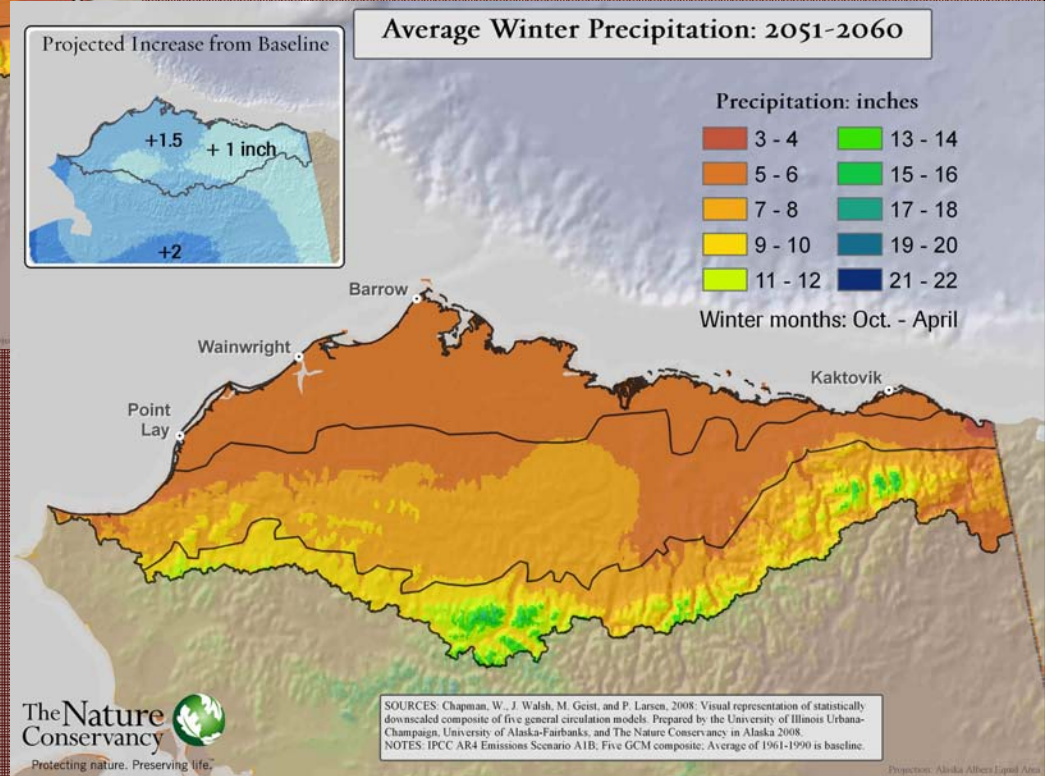
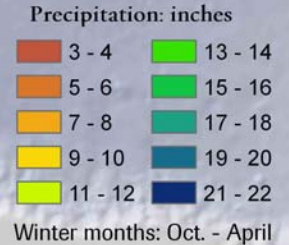
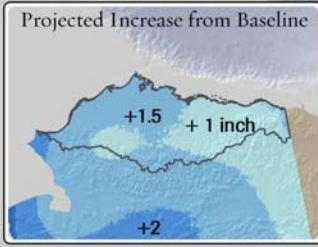


Projecting Arctic Precip. (Oct-Apr)

Average Winter Precipitation: 1961-1990

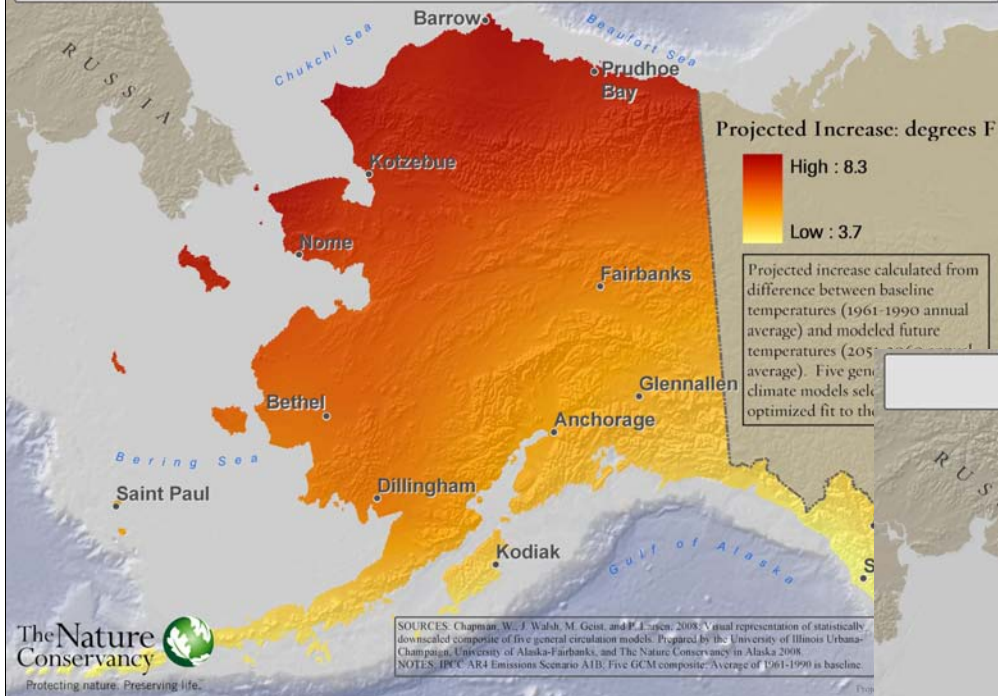


Average Winter Precipitation: 2051-2060

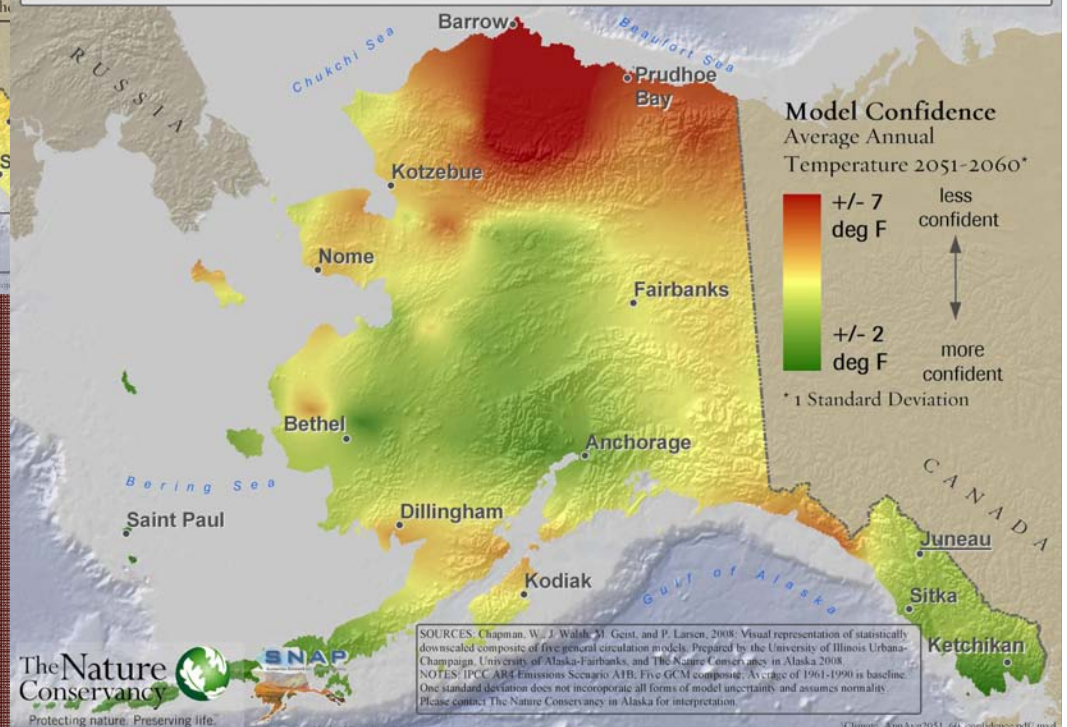


Thoughts on Model Confidence

Projected Change - Average Annual Temperature



General Circulation Model Confidence

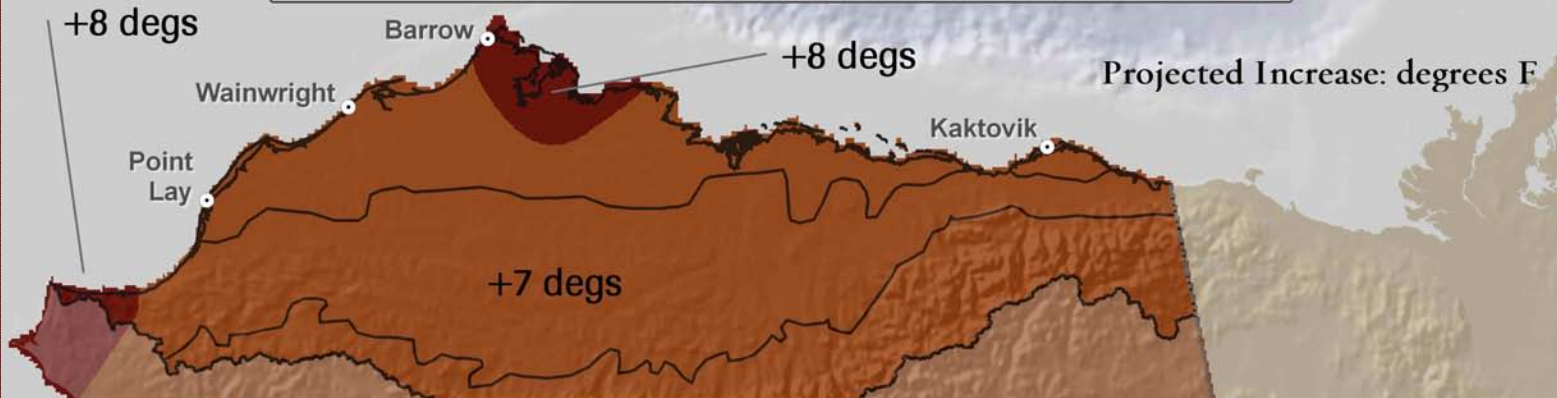


Thoughts on Model Confidence (cont.)

General Circulation Model Confidence: 2051-2060

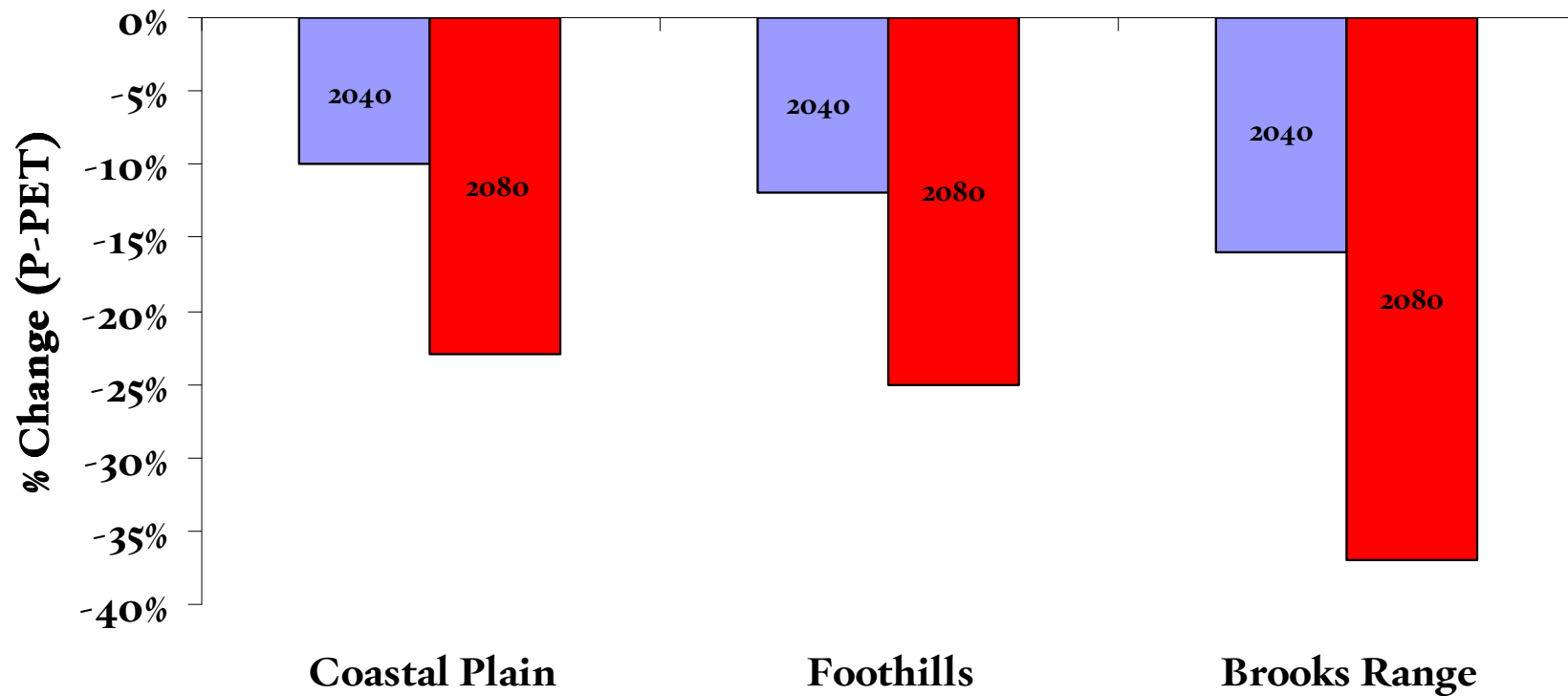


Projected Temperature Increase: Baseline to 2060



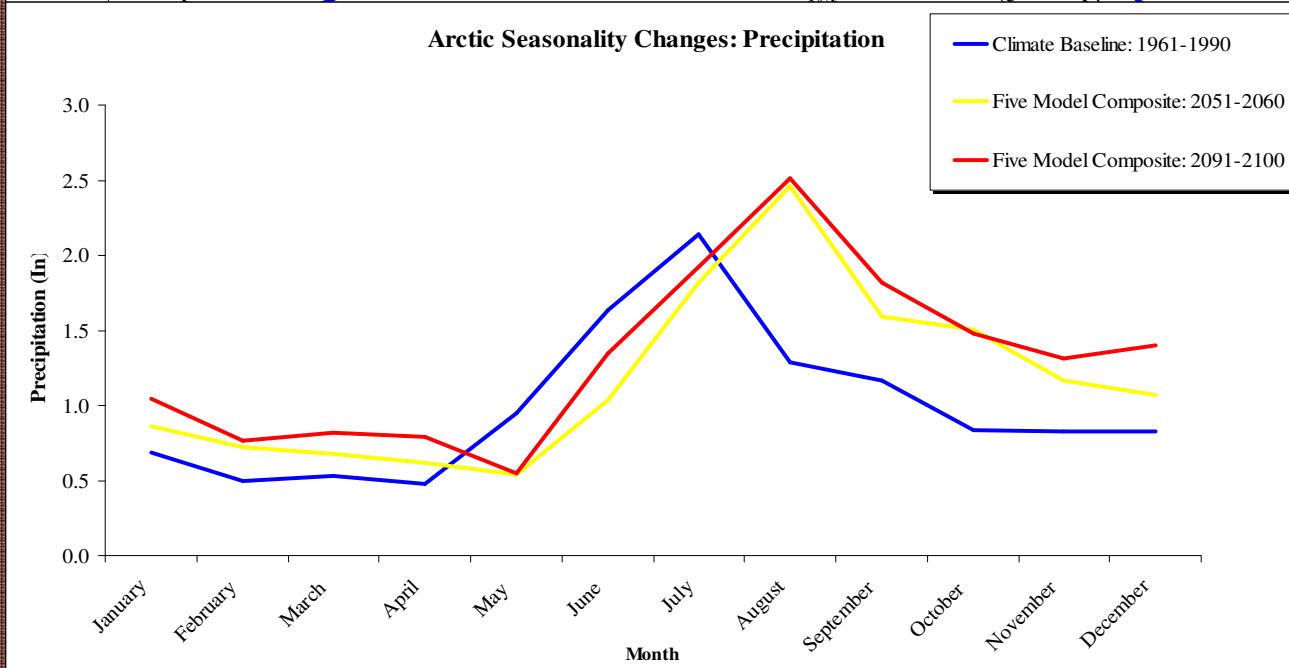
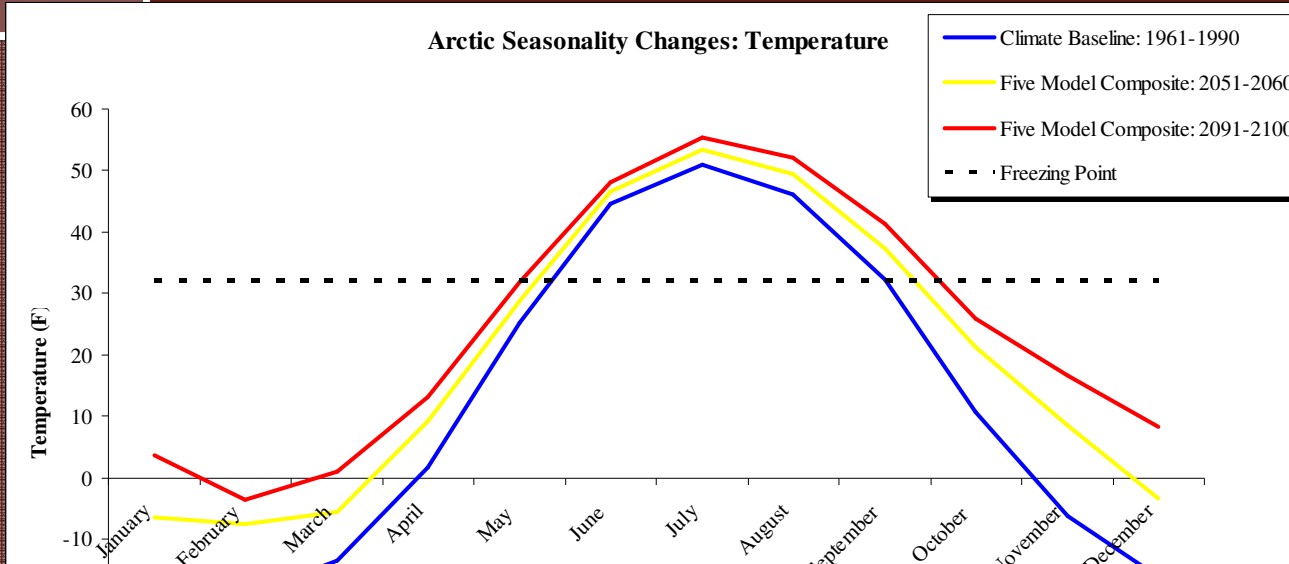
Water Availability Concerns

Drying Arctic Ecoregions



Note: Methodology and data provided by The Wilderness Society-Alaska.

Changes to Timing of Seasons



Next Steps for TNC

1. Collaborate;
2. Project Change for Wildlife and Ecosystem Characteristics;
3. Project Change for Canadian Arctic;
4. Develop Plausible Scenarios; and
5. Advocate for Innovative Conservation Strategies.

Acknowledgements

Thank you to...

- *USFWS/ARCUS* for hosting this workshop,
- *UAF/SNAP* for providing state-of-the-art climate data,
- *The Wilderness Society* for projecting future Arctic water availability, and
- Marcus Geist at The Nature Conservancy.