

# Community Level Assessments of Climate Change and Variability

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**Pacific Climate Impacts Consortium**  
**May 28<sup>th</sup> 2008**

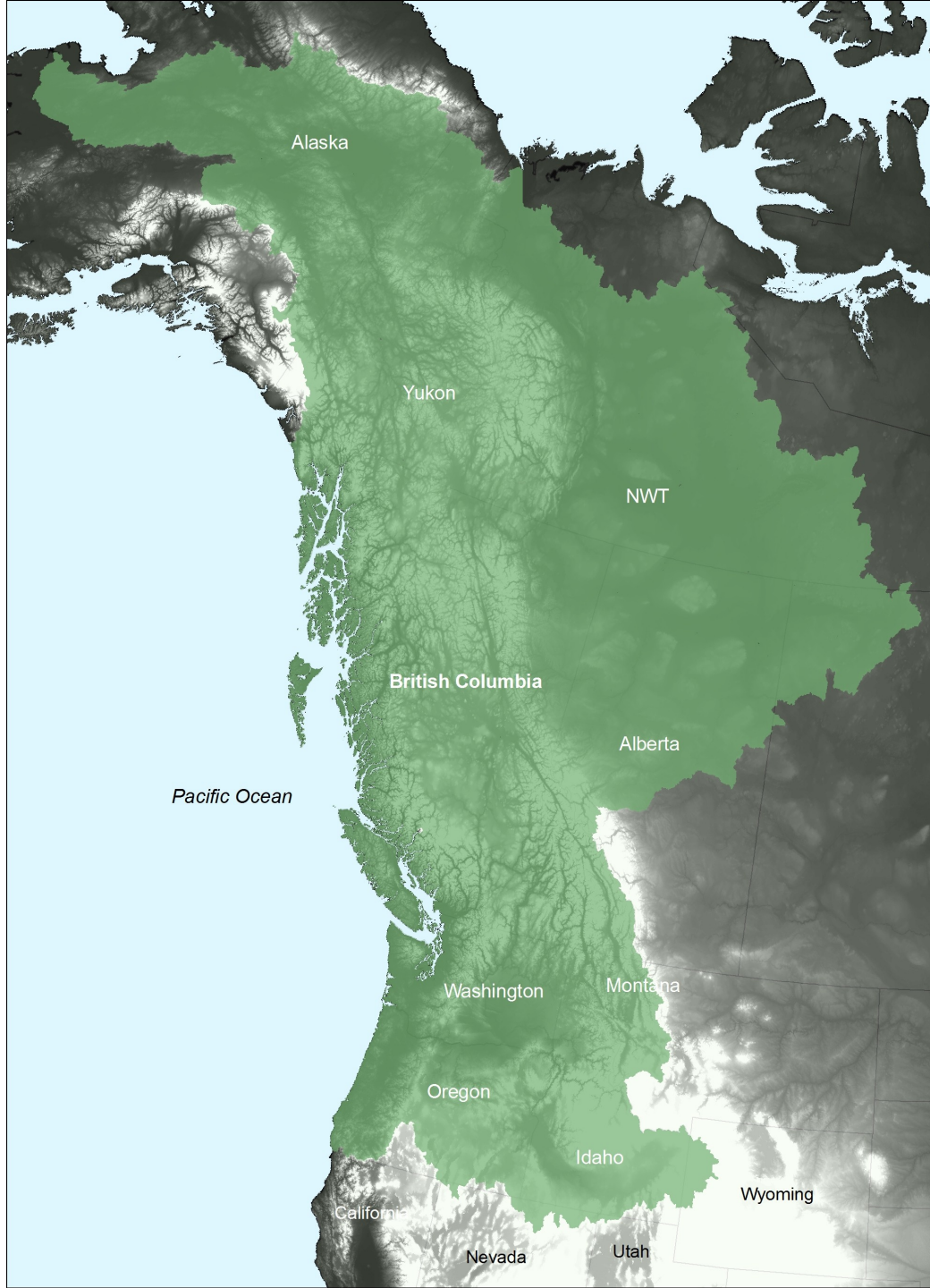
**Scientist Involvement in the Decision-Making Process**  
**CMOS 2008 - Kelowna, BC**



# Pacific Climate Impacts Consortium

## **Vision**

“...to stimulate collaboration between government, academe and industry to reduce vulnerability to extreme weather events, climate variability and the threat of global change. The consortium for climate impacts will bridge the gap between climate research and climate applications and will make practical information available to government, industry, and the public”.



# Pacific Climate Impacts Consortium

## Methods

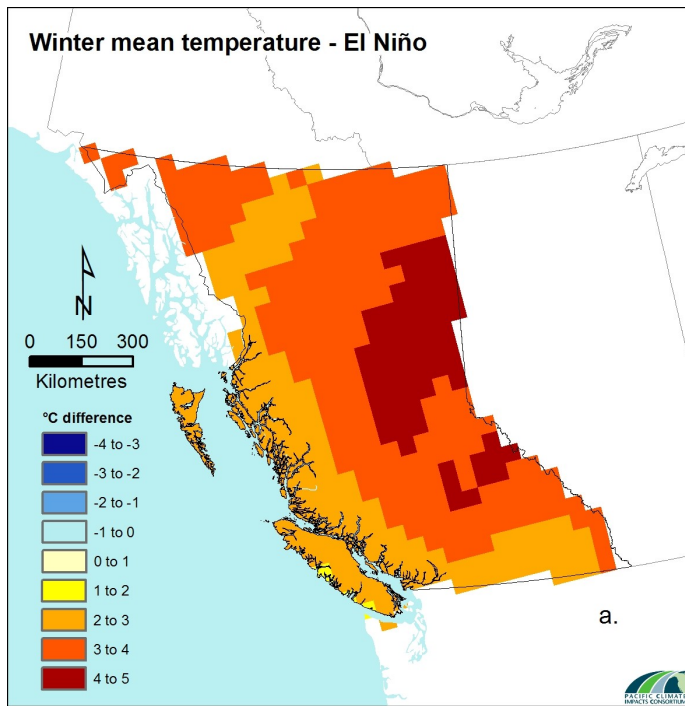
- Develop publicly available climate impact tools online
- Make our publications and presentations available online
- Stay up-to-date on the latest data, analysis techniques and model outputs
- Apply the latest techniques in our analyses and streamline the process for easy replication
- Provide R-packages
- Report at the community level
- Work to build the capacity of a community climate advocate
- Create output that are tailored to suit the needs of the community
- Present results in stand-alone reports with vivid graphics

# Community Assessment Projects

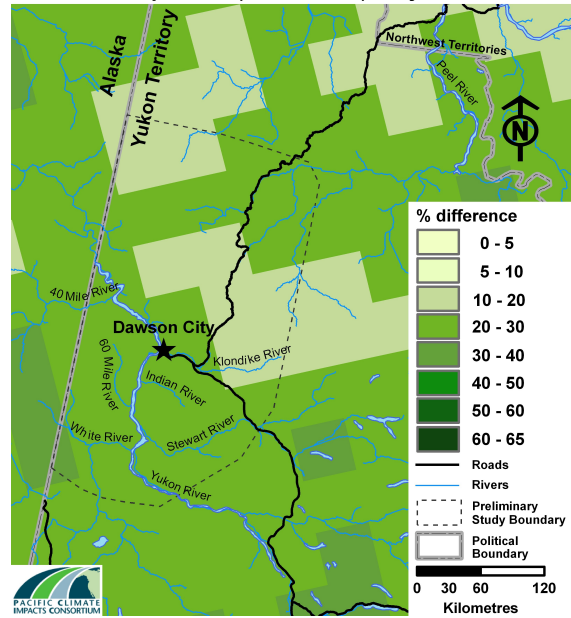
Project Area	Affiliated Community Group
Canadian Portion of the Columbia Basin	Columbia Basin Trust
Greater Vancouver Region	Metro Vancouver Regional District
Overview for all of BC	BC Hydro and the Ministry of the Environment
South Coast of BC	Robyn Sydney-Smith @ UBC
Whitehorse, YT	City of Whitehorse & Northern Climate Exchange
Cariboo-Chilcotin	Integrated Land Management Bureau Ministry of Agriculture and Lands
Dawson City, YT	Northern Climate Exchange
City of Vancouver	Sustainability Group
Prince George	UNBC and City of Prince George
Kimberly & Elkford (Columbia Basin)	Columbia Basin Trust Advisory Committee
North Coast of Vancouver Island	Raincoast

# Climate Assessment Process

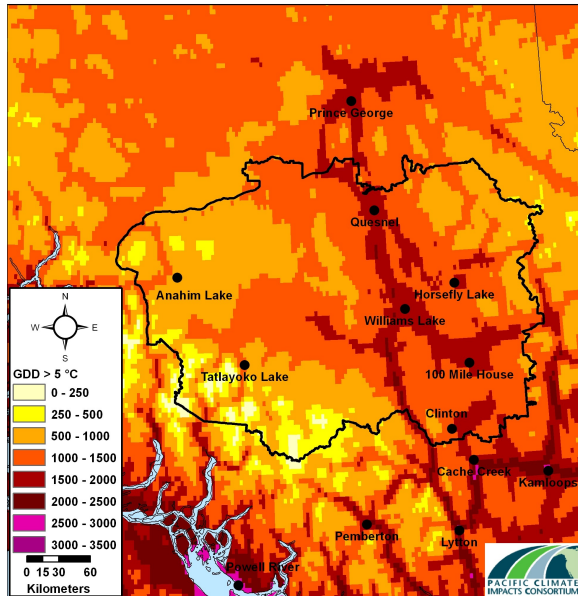
- Retrieve historical data (point and gridded)
- Evaluate trends
- Evaluate climate variability
- Demonstrate the range in GCM results
- Extract RCM and corresponding GCM data
- Display trends graphically
- Map trends, variability and projections
- Interpret findings
- Collaborate with climate advocate to write report



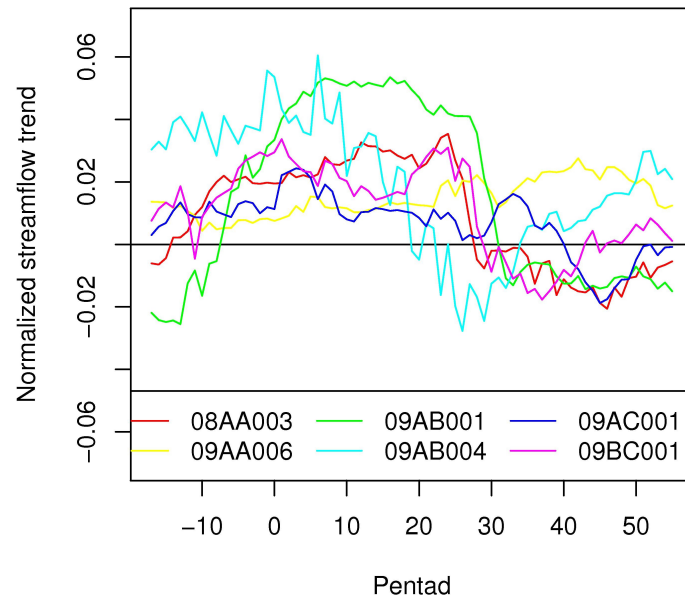
### Annual Precipitation (2041 - 2070) Projection



### Annual Mean GDD (2041 - 2070) Projection



### Whitehorse



# PCIC Regional Analysis Tool - Microsoft Internet Explorer

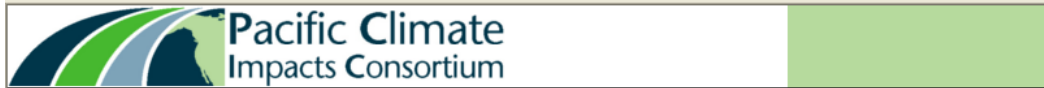
File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites

Links Customize Links Free Hotmail Windows Windows Marketplace Windows Media

Google Go Bookmarks 23 blocked Check AutoLink

Address http://www.pacificclimate.org/tools/select?expt=244&var=0&ts=2&toy=16&region=4&pr=19&upd



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## PCIC Regional Analysis Tool: Help

**Data Options**

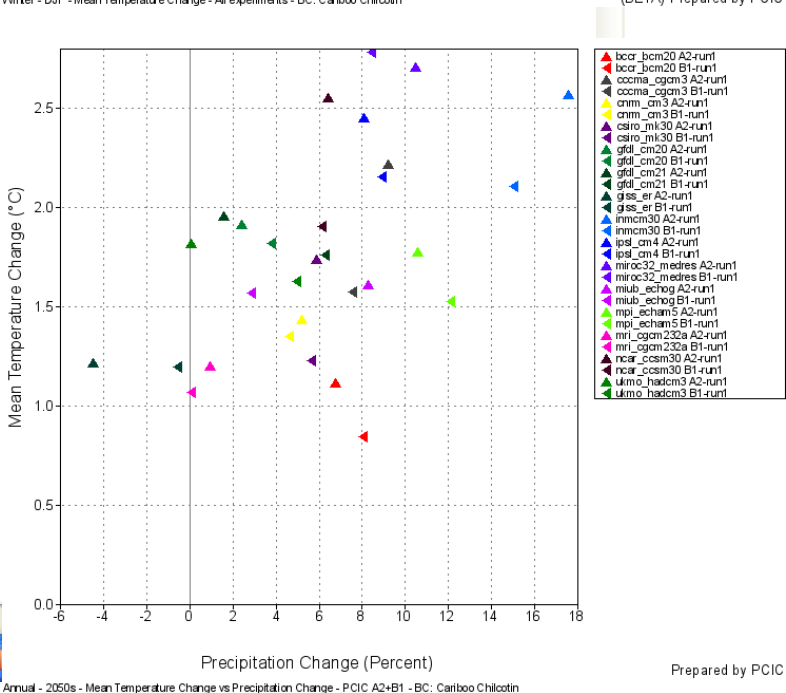
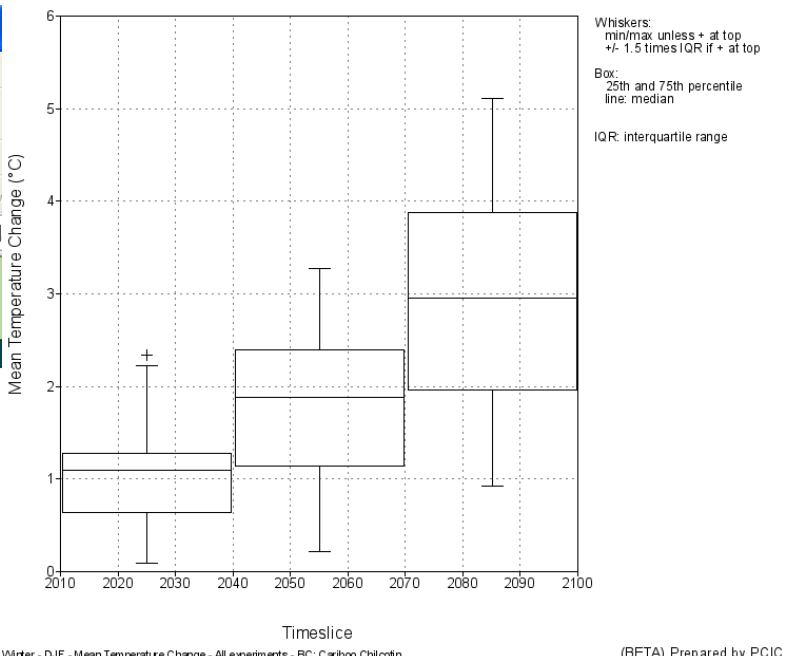
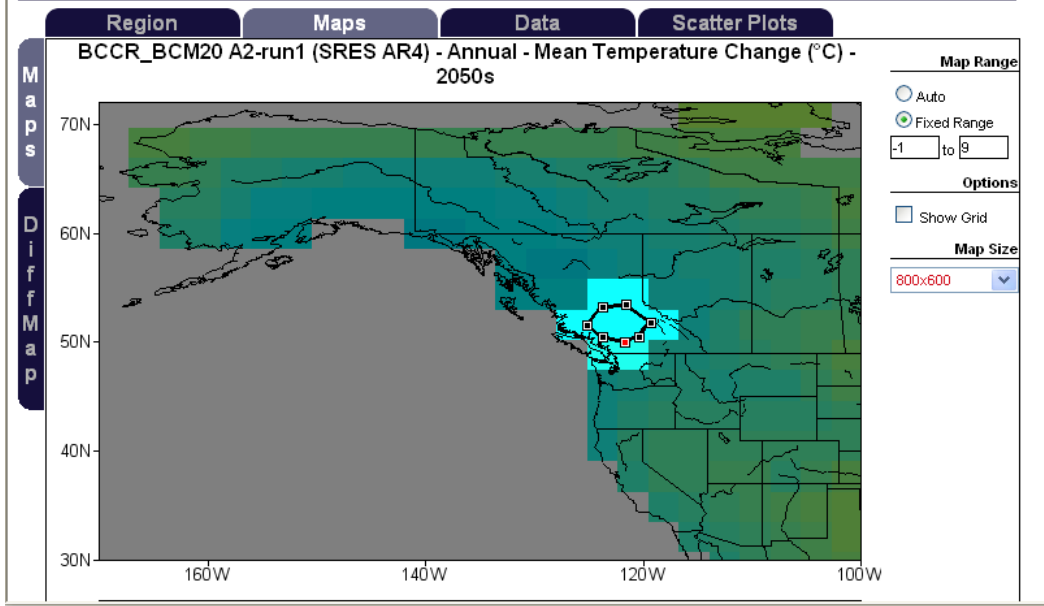
Experiment:  Variable:

Timeslice:  Time of Year:

**Display Options**

Window:  Region:

**Plot Options**



Done

start

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# Challenges

- Disconnect between climate science researchers and the engineers and planners who have to apply this information
- Data on extremes is not readily available at the local level
- The Regional Analysis Tool (RAT) is currently not easily accessible to planners or engineers
- The concept of climate change versus climate variability remains hard to communicate due to a lack of unity on the topic in the scientific community

# Future Directions

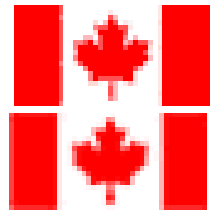
- Workshop with engineers and planners
- House and manage RCM outputs to assess uncertainty
- Hire a staff person at PCIC who will be responsible for downscaling
- Add functionality to RAT that reduces choices on scenarios and is more user-friendly
- Stay plugged in to work being done on selecting climate models (RCMs) that can replicate climate variability

# Thank you

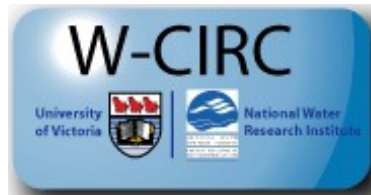
For more information

[www.PacificClimate.org](http://www.PacificClimate.org)

# PCIC Partners



Environment  
Canada  
Natural Resources  
Canada



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