CWRA ACRH

Canadian Water Resources Association | Association Canadienne des Ressources Hydriques

B.C. Branch

Quantifying Future Water Availability in a Changing Climate

November 18th, 2014 12:45 to 4:00

Creekside Community Centre

1 Athletes Way, Vancouver BC

The Pacific Climate Impacts Consortium (PCIC) is a regional climate service centre at the University of Victoria that conducts quantitative studies on the impacts of climate change and climate variability in the Pacific and Yukon region of Canada. In 2007, PCIC commenced a multi-year project to quantify the hydrologic impact of climate change in four select watersheds in BC, the Fraser, Peace, Campbell and Columbia, using updated data and peer-reviewed methodology. The hydrologic projections will soon be made available via a web-based data portal. The information being made available include projections of gridded surface runoff, baseflow, evaporation, snow water equivalent, and soil moisture for an area of 430,000 km^2 at a resolution of ~ 30 km^2. Additionally, routed streamflow will be available for 114 hydrometric sites. PCIC researchers will provide a summary of results and explain the methodology, uncertainties and limitations of PCIC's climatic and hydrologic projections.

Please join us for this event and for networking afterwards at a local pub. This event is a great opportunity for water professionals and students alike to learn about this valuable data portal for climate hydrology data.

Agenda

12:45 - Registration

1:00 pm - Workshop Overview and Introduction of Speakers (Stephanie Smith or Tamsin Lyle)

1:05 pm - Methodology (Markus Schnorbus)

(25 min presentation / 15 min questions)

- Where do these hydrologic projections come from?
    - Global Climate Models – the third Couple Model Inter-comparison Project (CMIP3)
    - Downscaling - Bias Corrected Spatial Disaggregation (BCSD)
    - Hydrologic Model - The Variable Infiltration Capacity Model (VIC)
- What decisions were made along the way?
- Why were these decisions made?

1:45 pm - Results (Markus Schnorbus)
(25 min presentation / 15 min questions)

- CMIP3 BCSD-VIC results for Fraser, Peace, Columbia and Campbell
- CMIP5 VIC Emulator results for Fraser and Peace

2:25 pm - Coffee Break
(15 min)

2:40 pm - Data Portal (Arelia Werner)
(10 min presentation / 10 min questions)

- Gridded data (Runoff, Base flow, Evapotranspiration, Soil Moisture and SWE)
- Routed flow data

3:00 pm - Sources of Uncertainty (Arelia Werner)
(20 min presentation / 10 min questions)

- Global Climate Models and Emissions Scenarios
- Downscaling
- Hydrologic Model Parameters and Calibration

3:30 pm - Summary and Future Directions (Markus Schnorbus and Arelia Werner)
(10 min presentation)

3:40 pm – Discussion
(15 min)

3:55 pm - Wrap-up and Closing Remarks (Tamsin Lyle)

Registration Information

CWRA Member price	$95
Non-Member price	$115
Student price	$40

The BC Branch of the CWRA is a non-profit organization. The event fees cover the costs of hosting the event (room rental, refreshments, and travel costs for our out of town speakers).

Register online: https:/www.regonline.com/ClimateHydrology