

Field	Response
1. Contact Information   Name	Chris Fletcher
1. Contact Information   Department	Geography and Environmental Management
1. Contact Information   Email	<a href="mailto:chris.fletcher@uwaterloo.ca">chris.fletcher@uwaterloo.ca</a>
1. Contact Information   University	Waterloo
1. Contact Information   Personal Web Page	<a href="http://env-web3.uwaterloo.ca/c5fletch/">http://env-web3.uwaterloo.ca/c5fletch/</a>
1. Contact Information   Phone	519-888-4567 x36855
2. Please indicate the alignment of your research expertise to one or more of the following GWF objectives/ deliverables:	<p>Predict water futures – use Big Data to make informed decisions, better models to assess change in human/natural land and water systems</p> <p>Hydrometeorology and Climate Change – improve understanding and prediction of how climate change influences water availability and extreme events</p> <p>Hydrology and Terrestrial Ecosystems – improve understanding and prediction of hydrological and terrestrial processes and watershed hydrology and how processes and systems will evolve and interact under a changing climate</p>
3.1 Please indicate the alignment of your research expertise to the GWF Science Pillar 1 – Diagnosing and Predicting Change in Cold Regions:	
3.2 Please indicate the alignment of your research expertise to the GWF Science Pillar 2 – Developing Big Data and Decision Support Systems:	Decision Support Systems – predictive and diagnostic modelling system development and deployment for hydrology, water quality and water resources
3.3 Please indicate the alignment of your research expertise to the GWF Science Pillar 3 – Designing User Solutions:	
4. Please indicate the alignment of your research expertise to one or more of the following user needs:	Model development to support climate change impact assessment, including regional climate change modeling, hydrological and ecological modeling, specifically involving improvements in forecasting and predictive capacity, downscaling, and scenario development of water futures.

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<p>5. Please list regions of Canada and the biomes (e.g. mountains, boreal forest, Great Lakes–St Lawrence), watersheds, and/or river basins where you are interested in conducting research for GWF:</p>	<p>Canadawide / North America Boreal Forest</p>
<p>6. Please list any other expertise or recent experience (subjects, river basins, technology) not covered by above query that could help us in assessing your alignment with the GWF programme:</p>	<p>My research group is one of few in Canada that provides expertise in designing, running, and interpreting simulations performed with global climate models in a University setting. Of particular relevance to the GWF programme, we seek to improve the representation of snow, and related land and atmospheric processes, in climate models. This research contributes to core objectives of the NSERC CCAR network called CanSISE &lt;<a href="http://www.cansise.ca">http://www.cansise.ca</a>&gt;, which aims to improve understanding and predictive capacity of snow and sea ice for Canada. Of particular interest is the simulation of seasonal snow in boreal forest regions by current generation climate models, and its response to climate change. My team has experience conducting research using a hierarchy of modelling tools, of varying complexity, which could be deployed to problems relevant to GWF's objectives.</p>