

Field	Response
1. Contact Information Name	Ram Yerubandi
1. Contact Information Department	Water Science and Technology
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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>
3.1 Please indicate the alignment of your research expertise to the GWF Science Pillar 1 – Diagnosing and Predicting Change in Cold Regions:	<p>Water Quality and Aquatic Ecosystems – improve understanding and prediction of how climate changes in climate, hydrology, and land use impact water quality and the health of aquatic ecosystems</p> <p>Human–Water Systems – address the human dimensions that will determine water futures, including governance, policy, communities, border, and water resources management</p>
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:	<p>Water Environment – ecosystem health and conservation, water management</p> <p>Government and Governance</p>

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4. Please indicate the alignment of your research expertise to one or more of the following user needs:	Projects to improve environmental monitoring, including sensors, drones, satellites, river basin observatories, lake buoys, software development, chemical fingerprinting, real-time monitoring, citizen science, and integration of Big Data platforms for Cold Region water science. 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.
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:	Great Lakes, western Canada
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:	