

Field	Response
1. Contact Information   Name	Peter Kruse
1. Contact Information   Department	Chemistry and Chemical Biology
1. Contact Information   Email	<a href="mailto:pkruse@mcmaster.ca">pkruse@mcmaster.ca</a>
1. Contact Information   University	McMaster University
1. Contact Information   Personal Web Page	<a href="http://www.chemistry.mcmaster.ca/kruse/pkruse.html">http://www.chemistry.mcmaster.ca/kruse/pkruse.html</a>
1. Contact Information   Phone	905-525-9140 x23480
2. Please indicate the alignment of your research expertise to one or more of the following GWF objectives/ deliverables:	Improve disaster warning – develop scientific knowledge, monitoring and modelling technologies, and national forecasting capacity to predict the risk and severity of extreme events
3.1 Please indicate the alignment of your research expertise to the GWF Science Pillar 1 – Diagnosing and Predicting Change in Cold Regions:	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
3.2 Please indicate the alignment of your research expertise to the GWF Science Pillar 2 – Developing Big Data and Decision Support Systems:	Big Data for Water – sensors, sensing, instrumented river basins, data analysis systems  Water Environment – ecosystem health and conservation, water management Agriculture – including farming, food processing, country foods Energy & Natural Resources – including mining and hydroelectricity
3.3 Please indicate the alignment of your research expertise to the GWF Science Pillar 3 – Designing User Solutions:	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.
4. Please indicate the alignment of your research expertise to one or more of the following user needs:	

## Field

## Response

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:

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:

sensor technology, mostly water quality monitoring of inorganic species