

Global Water Futures 2021 Operations Team Meeting – Project Reporting Template

Instructions: All GWF projects are asked to provide a summary update on their activities and accomplishments in preparation for the upcoming Operations Team meeting. **Please submit these by email to chris.debeer@usask.ca by no later than December 2.** These will be used to help guide discussions and breakout synthesis activities and will be made generally accessible on our website in advance of the meeting.

Project Name:	
Our major accomplishments to date are:	
<ul style="list-style-type: none">• Community engagement meeting with Chief and Council in Fort Albany First Nation, Oct 2019.• Meeting with Mushkegowuk Council Community Investigators and researcher Dr. Litvinov in Timmins, Oct 2019.• Community Research Agreements developed with Fort Albany First Nation and Mushkegowuk Council• Collaboration with the Food, Environment, Health and Nutrition of Children and Youth (FEHNCY) team, including a data sharing agreement.• In collaboration Mushkegowuk Council, Fort Albany First Nation, and consultation with the (FEHNCY) team, we developed a survey to collect data on food behaviour and perceptions of adults (household food insecurity, impact of wild-harvested fish on food security, risk perception, changes to food security and fish health over time and related to climate, relationships between fish health and human consumption).• Ethics approval from University of Waterloo• Existing archived fish (n=38) tissue and mollusca (n=12) samples collected by Dr. Litvinov at traditional fishing areas near Fort Albany were provided to our team in 2020. These samples have undergone lab analysis for mercury, trace metals, and arsenic speciation.	
Our current activities are:	
<ul style="list-style-type: none">• Examine ratios of contaminants (total Hg and speciated As) to nutrients (e.g., Se, Cu, Zn) from the fish and mollusca tissue.• Preparation of a community report of project activities and findings from fish and mollusca samples.• To have our team prepared to travel to Fort Albany if it becomes safe to travel to the community. If we are able to travel, we would collect additional fish samples, adult hair samples and administer the food survey.• Conduct a systematic literature review to identify all (national and international) available maximum residue limits for arsenic (total) and arsenic species in foods, and the variables used in the development of maximum residue levels for arsenic.	
The main accomplishments expected by the end of the project are:	
<ul style="list-style-type: none">• To estimate arsenic and mercury exposures using a probabilistic model. The model will be used to characterize the risks and benefits of wild-harvested fish in Mushkegowuk Region.• The main outcomes of this work include i) quantification of inorganic arsenic levels in fish tissue; and ii) communication of exposure assessment knowledge on mercury and arsenic contamination to Mushkegowuk Council and Fort Albany First Nation.• Findings will support public health strategies that promote traditional food reliance in ways that limit contaminant exposure and will inform measures to improve food security.	

Here is a key visual from the project (figure, photo, table, graph, etc.)



Albany River, Fort Albany First Nation. 2019. Photo credit: Mylene Ratelle