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Global Water Futures program invests in Laurier research on impacts of climate change in the Arctic

WATERLOO – <u>Global Water Futures</u> (GWF), the world's largest university-led freshwater research program, is investing in new research at Wilfrid Laurier University. As part of the second phase of its seven-year mission, GWF is launching 12 new water-security projects totalling \$2.52 million, two of which are being led by Laurier professors <u>Jennifer Baltzer</u> and <u>Homa Kheyrollah Pour</u>.

Baltzer, associate professor of Biology and the Canada Research Chair in Forests and Global Change, is coleading a <u>study investigating climate change-related disturbances in northern ecosystems</u>. Increased shrub cover on the tundra, permafrost thaw and wildfire are some of the factors contributing to significant changes in water resources across the Arctic. Together with researchers at the University of Saskatchewan, McMaster University, Université Laval, Université de Montréal and her Laurier colleague, <u>Philip Marsh</u>, Baltzer aims to improve our ability to model complex feedbacks between ecology and hydrology in the rapidly warming Arctic.

Kheyrollah Pour, assistant professor of Geography and Environmental Studies and Canada Research Chair in Remote Sensing of Environmental Change, is <u>studying the effects of climate change on Arctic lake ice</u>. Warmer winters are causing northern lakes to experience significant shifts in ice-cover duration and water temperature, creating safety issues for communities that rely on ice roads to move people and goods in areas that would be otherwise inaccessible. Kheyrollah Pour and her partners at the University of Waterloo will use Earth-observation satellites to develop tools for ongoing ice monitoring in order to support decision-making and mitigation strategies for Northern communities.

"We are proud to continue our productive partnership with Global Water Futures," said Jonathan Newman, Laurier's vice-president: research. "With its international impact and reputation, GWF's ongoing investment in our scholars is a strong endorsement of Laurier's field-leading hydrology research."

Established in 2016 with an investment from the federal Canada First Research Excellence Fund, GWF has allocated more than \$69 million to its 64 projects across 18 Canadian universities. Over the past few months, GWF renewed and funded 11 projects that have been operating since 2017, including <u>Northern Water Futures</u>, a project led by Baltzer addressing the impacts of climate change on water resources across the Northwest Territories.

In addition to her work as co-primary investigator on the Arctic lake ice study, Kheyrollah Pour will be collaborating with colleagues at the University of Waterloo on two more GWF studies. The first, an ongoing project called <u>Lake Futures</u> which has been extended for three years, aims to enhance the adaptive capacity and resilience of Canada's lake ecosystems. The second is a <u>new project</u> focused on urban water management.

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