



NIRB File No.: 26YN041
NIRB Public Registry link:
www.nirb.ca/project/126460
NPC File No.: 151201

August 4, 2026

Wenxi Liao
University of Guelph
Guelph, ON

Sent via email: wenxi.liao@uoguelph.ca

Re: Notice of Screening and Comment Request for University of Guelph's "Arctic Water Solutions: Harnessing Native Northern Plants for Nature-Based Wastewater Treatment in Canada's Arctic" project proposal

Dear Wenxi Liao:

The Nunavut Impact Review Board (NIRB) has commenced screening¹ the project proposal.

By copy of this letter, NIRB invites regulators, interested parties, and community members or groups potentially affected by the proposal to view the application and comment directly to the NIRB by August 25, 2026.

The NIRB would like parties to provide comments regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic or socio-economic effects; and if so, why;
- Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; and if so, why;
- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (and providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal

The application can be viewed on NIRB's online registry www.nirb.ca/project/126460 where a comment form is available, or comments can be also submitted to info@nirb.ca, or by fax.

¹ Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and s. 87 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (NuPPAA)

Scope of proposal

Location	Kitikmeot region, <i>within the municipal boundary of Cambridge Bay</i>
Objective	The Proponent intends to develop and optimize low-cost, scalable, and climate-adapted biofilters for wastewater treatment.
Timeline	Operations Phase: April 1, 2027, to March 1, 2028 Closure Phase: March 1, 2028, to June 1, 2028

The scope of the project includes the following undertakings, works or activities:

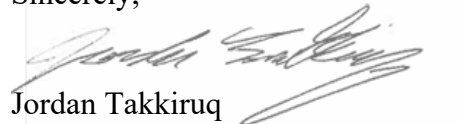
- Collection of native plant species, such as mastodon flower and Arctic willow (fewer than 20 plants in total).
- Install approximately six pilot-scale biofilter systems near the Canadian High Arctic Research Station (CHARS), each would contain native plants, and layered biofilter media, composed of sand, gravel, and/or biochar. Each biofilter would be approximately 100 cm high and 60 cm in diameter.
- Pump wastewater from the CHARS triplex sewage holding tank and apply wastewater from CHARS housing onto each biofilter.
- Collect treated effluent from each biofilter in separate collection containers. Following the collection of samples, pump the remaining treated effluent back into the triplex sewage holding tank. No untreated or treated wastewater would be discharged to the ground.
- Biofilters would be monitored using environmental and water quality sensors, to continuously monitor system performance for measurements of soil moisture, turbidity, pH, and electrical conductivity.
- Transport effluent samples and selected plant samples to the University of Guelph for analysis.
- Remove all biofilters, sensors, temporary tanks, collection containers, and associated equipment by June 2028.

Inclusion or Exclusion of Scoping List

The NIRB has identified no additional works or activities in relation to the project proposal; as a result, the NIRB will proceed with screening the project based on the scope as described above.

Questions about the NIRB's work should be directed to the undersigned at jtakkiruaq@nirb.ca.

Sincerely,



Jordan Takkiruaq
Impact Assessment Officer
Nunavut Impact Review Board

cc: Distribution List
Richard Dwyer, Nunavut Water Board
Natalie D'Souza, Department of Environment
Michele LeBlanc-Havard, Department of Environment
Mosha Cote, Nunavut Research Institute
Cory Barker, Kitikmeot Inuit Association
Tannis Bolt, Kitikmeot Inuit Association
Justin Buller, Government of Nunavut
Dianne Lapierre, Government of Nunavut
Sean Joseph, Government of Nunavut