NIRB Application for Screening #126210

Characterizing contaminant levels in softshell clams in Frobisher Bay near Iqaluit, NU

Application Type:	New
Project Type:	Scientific Research
Application Date:	Tuesday, July 8, 2025
Period of operation:	from 2025-08-10 to 2025-10-10
Project Proponent:	Ken Jeffries University of Manitoba 50 Sifton Road Winnipeg Manitoba R3T2N2 Canada Phone Number:: 2044746429, Fax Number::

DETAILS

Non-technical project proposal description

English: This University of Manitoba project is a follow-up to research that was done as part of the DFO-led baseline monitoring program near Iqaluit, NU. For 2025, our project team is proposing to collect softshell clam samples between September 1 and September 19 from Frobisher Bay. The exact time will depend on when we can organize all the logistics for the collections. We are proposing to collect 10-20 clams from 3-5 locations up to a maximum of 100 clams. The locations will be determined based on discussions with the Amaruq Hunters and Trappers Association and based on the density of clams in those areas, but areas that are not harvested by locals will be prioritized (i.e., near the boat launch and wastewater effluent). We will hire a local guide with a boat to access clam sampling locations within Koojesse Inlet. Clams will be collected by hand during extreme low tide to minimize the impact on the environment. We will measure the levels of oil and gas related contaminants in approximately half of these clams. The other half of the clams will be held in clean water in a fridge for several days to see if a holding period can reduce the amount of contaminants in the clams before they are eaten. We aim to conduct this work in the Nunavut Research Institute's facilities in Iqaluit. We are also proposing to purchase samples of other harvested aquatic species such as Arctic char that were harvested by locals in the region. Our goal is to collect 30-50 grams of muscle from other animals that are intended to be eaten so that we can better track the movement of contaminants across the food chain. We would purchase a small sample of community member's catch along with where it was harvested from to replace the lost food. We will aim to purchase 20-30 samples from community members, depending on the type of samples available during the study period. If we are able to purchase a large number of these community samples, then we will reduce the number of clams collected from Frobisher Bay.In total, these will be performed by a maximum of a team of 3 researchers from the University of Manitoba for a maximum of 7 days. We will process these samples in Winnipeg and share the results with the community through pamphlets and factsheets. The data will be made available on public databases and the information used for scientific publications, which will be presented at scientific conferences. These activities will allow us to monitor contaminant levels from regions where people are consuming food species from Frobisher Bay. Our goal is to help identify if specific locations are safer for harvesting with respect to contaminant levels and if any caution is needed at all. Our intention is to share data on contaminant levels and risks so that community members can make informed decisions about how and where they perform their harvests.

French: Ce projet de l'Université du Manitoba fait suite aux recherches menées dans le cadre du programme de surveillance de base dirigé par le MPO près d'Iqaluit, au Nunavut. Pour 2025, notre équipe de projet propose de prélever des échantillons de myes entre le 1er et le 19 septembre dans la baie Frobisher. La date exacte dépendra du moment où nous pourrons organiser toute la logistique pour les collectes. Nous proposons de prélever 10 à 20 palourdes dans 3 à 5 endroits, jusqu'à un maximum de 100 palourdes. Les lieux seront déterminés en fonction des discussions avec l'association des chasseurs et trappeurs d'Amaruq et de la densité des palourdes dans ces zones, mais les zones qui ne sont pas récoltées par les locaux seront prioritaires (par exemple, près de la rampe de mise à l'eau et de l'effluent d'eaux usées). Nous engagerons un guide local avec un bateau pour accéder aux sites d'échantillonnage des palourdes dans le bras de mer Koojesse. Les palourdes seront ramassées à la main à marée extrêmement basse afin de minimiser l'impact sur l'environnement. Nous mesurerons les niveaux de contaminants liés au pétrole et au gaz dans environ la moitié de ces palourdes. L'autre moitié des palourdes sera conservée dans de l'eau propre dans un réfrigérateur pendant plusieurs jours pour voir si une période de conservation peut réduire la quantité de contaminants dans les palourdes avant qu'elles ne soient consommées. Nous souhaitons effectuer ce travail dans les installations de l'Institut de recherche du Nunavut à Iqaluit.Nous proposons également d'acheter des échantillons d'autres espèces aquatiques récoltées, comme l'omble chevalier, par les habitants de la région. Notre objectif est de prélever 30 à 50 grammes de muscle sur d'autres animaux destinés à être consommés, afin de mieux suivre le mouvement des contaminants dans la chaîne alimentaire. Nous achèterons un petit échantillon de la prise d'un membre de la communauté ainsi que l'endroit où elle a été récoltée pour remplacer la nourriture perdue. Nous nous efforcerons d'acheter 20 à 30 échantillons aux membres de la communauté, en fonction du type d'échantillons disponibles au cours de la période d'étude. Si nous sommes en mesure d'acheter un grand nombre de ces échantillons communautaires, nous réduirons le nombre de palourdes collectées dans la baie de Frobisher.Au total, ces prélèvements seront effectués par une équipe de trois chercheurs de l'université du Manitoba pendant sept jours au maximum.

Nous traiterons ces échantillons à Winnipeg et partagerons les résultats avec la communauté au moyen de brochures et de fiches d'information. Les données seront disponibles sur des bases de données publiques et les informations utilisées pour des publications scientifiques, qui seront présentées lors de conférences scientifiques. Ces activités nous permettront de surveiller les niveaux de contaminants dans les régions où les gens consomment des espèces alimentaires provenant de la baie de Frobisher. Notre objectif est d'aider à déterminer si des endroits spécifiques sont plus sûrs pour la récolte en ce qui concerne les niveaux de contaminants et s'il est nécessaire de faire preuve de prudence. Notre intention est de partager les données sur les niveaux de contaminants et les risques afin que les membres de la communauté puissent prendre des décisions éclairées sur la manière et le lieu de leurs récoltes.

Inuktitut: ᐅᓇ ᓯᓚᑦᑐᓴᕐᕕᒃᔪᐊᑦ ᒫᓂᑑᐸ ᐱᓕᕆᐊᖅ ᖃᐅᔨᒋᐊᒃᑲᓂᕈᑎᐅᔪᖅ ᖃᐅᔨᓴᕐᓂᐅᓚᐅᖅᑐᒧᑦ ᐃᓚᒋᓪᓗᓂᐅᒃ ᐃᒪᕐᒥᐅᑕᓕᕆᔩᒃᑯᑦ ᑲᓇᑕᒥ ᑐᑭᒍᐊᖅᑎᑕᖓᓂ ᑐᓐᖓᕕᖏᓐᓄᑦ ᖃᐅᔨᓴᖃᑦᑕᓂᕐᒧᑦ ᐱᓕᕆᐊᒥᑦ ᖃᓂᒋᔭᖓᓂ ᐃᖃᓗᐃᑦ, ᓄᓇᕗᑦ. 2025−ᒧᑦ, ᐱᓕᕆᐊᒧᑦ ᖃᐅᔨᓴᖅᑎᕗᑦ ᑐᔪᕋᖅᑐᑦ ᓄᐊᑦᑎᓗᑎ ᐊᒻᒫᓚᔪᓂᑦ ᖃᐅᔨᓴᕋᕐᓴᓂᑦ ᐊᑯᓐᓂᖏᓐᓂ ᔫᑎᐱᓕ 1 ᐊᒻᒪ ᔫᑎᐱᓕ 09 ᑕᓯᐅᔭᖅᔪᐊᒥᑦ. ᖃᖓᒃᑯᓪᓚᕆᐅᓂᖓ ᑐᓐᖓᓂᖃᓂᐊᖅᑐᖅ ᐋᖅᑭᓱᖅᑕᐃᓐᓇᕆᔪᓐᓇᓕᕈᑦᑎᒍ ᐃᖅᑲᓇᐃᔭᐃᑏᑦ ᓄᐊᑦᑎᓂᕐᒧᑦ. ᑐᔪᕋᖅᑐᒍᑦ ᓄᐊᑦᑎᓗᑕ 10−20 ᐊᒻᒫᓚᔪᓂᑦ 3−5 ᓇᒦᓐᓂᖏᓐᓂ ᐊᒥᓲᓕᕆᔪᓐᓇᖅᑕᖏᓐᓂ 100 ᐊᒻᒫᓚᔪᐃᑦ. ᓇᒦᓐᓂᖏᑦ ᓇᓗᓇᐃᖅᑕᐅᓂᐊᖅᑐᑦ ᑐᓐᖓᓂᖅᑲᓗᑎ ᐅᖃᖃᑎᒌᓐᓂᕆᓗᒋᑦ ᐊᒪᕈᖅ ᐆᒪᔪᕐᓂᐊᑎᒃᑯᑦ ᑲᑐᔾᔨᖃᑎᒌᖏᑦ ᐊᒻᒪ ᑐᓐᖓᓂᖃᕐᓗᑎ ᐊᒻᒫᓚᔪᖃᕐᓂᖏᓐᓂ ᑖᒃᑯᓂᖓ ᓇᒦᓐᓂᕆᔭᖏᓐᓂ, ᑭᓯᐊᓂ ᐊᒻᒨᔪᑕᖅᕕᐅᕙᖏᑦᑐᓂᑦ ᓄᓇᓕᒻᒥᐅᑕᓄᑦ ᓯᕗᓪᓕᐅᔾᔭᐅᑎᑕᐅᓂᐊᖅᑐᑦ (ᓲᕐᓗ, ᖃᓂᒋᔮᖓ ᐅᒥᐊᒃᑯᕕᒻᒥ ᐊᒻᒪ ᐃᒥᕐᓄᑦ ᐊᑐᕇᖅᓯᒪᔪᓄᑦ ᓴᓗᒪᓴᖅᑕᐅᓯᒪᔪᓂᑦ). ᐃᖅᑲᓇᐃᔭᖅᑎᑦᑎᓂᐊᖅᑐᒍᑦ ᓄᓇᓕᒻᒥᑦ ᐊᐅᓚᑦᓯᔨᓂᑦ ᐃᒥᐊᖃᕐᓗᓂ ᐱᔭᕐᓴᐅᒍᓐᓇᓂᐊᕐᓂᖏᓐᓄᑦ ᐊᒻᒫᓚᔪᐃᑦ ᖃᐅᔨᓴᕐᕕᐅᔪᓂᑦ ᓇᒦᓐᓂᖏᓐᓂ ᐃᓗᐊᓂ ᑯᔪᓯ ᐃᒪᖓᓂ. ᐊᒻᒫᓚᔪᐃᑦ ᓄᐊᑕᐅᓂᐊᖅᑐᑦ ᐊᒡᒐᓄᑦ ᐱᑐᕐᓂᑎᓪᓗᒍ ᑎᓂᖓᑎᓪᓗᒐ ᐊᑦᑐᐃᓂᖃᓗᐊᖅᑕᐃᑎᑦᑎᓗᑎ ᐊᕙᑎᖓᓂ. ᖃᐅᔨᓴᓂᐊᖅᑕᕗᑦ ᖁᕝᕙᓯᓐᓂᖏᑦ ᐅᖅᓯᐊᓗᐃᑦ ᐊᒻᒪ ᒫᓯᑦ ᐊᑦᑐᐊᓂᓕᓐᓄᑦ ᓱᑲᓐᖑᓄᑦ ᓇᑉᐸᓗᖏᓐᓂ ᑖᒃᑯᓐᖓ ᐊᒻᒫᓚᔪᓂᑦ. ᓇᑉᐸᖏᑦ ᓴᓗᒪᔪᒥ ᐃᒪᕐᑏᑎᑕᐅᓂᐊᖅᑐᑦ ᖁᐊᒃᑯᕕᒻᒥ ᐊᒥᓯᒐᓚᓐᓄᑦ ᐅᓪᓗᓄᑦ ᐱᓯᒪᔭᐅᓂᖏᓐᓄᑦ ᐊᑦᑎᓪᓕᕆᐊᖅᑎᑦᑎᔪᓐᓇᕐᒪᖔᑕ ᐊᖏᓂᖏᓐᓂ ᓱᐳᓇᖅᑐᓂᑦ ᐊᒻᒫᓚᔪᓂᑦ ᓂᕆᔭᐅᓚᐅᖅᑎᓐᓇᒋᑦ. ᑐᕌᕐᓂᖅᖅᑐᒍᑦ ᑖᓐᓇ ᐃᖅᑲᓇᐃᔮᖑᓂᐊᖅᑐᓂ ᓄᓇᕗᒻᒥ ᖃᐅᔨᓴᖅᑐᓕᕆᔾᔪᑦ ᐱᓕᕆᕕᖏᓐᓂ ᐃᖅᑲᓗᓐᓂ. ᑐᔪᕋᖅᑐᒍᑦ ᓂᐅᕕᕐᓂᐊᕐᓗᑕ ᖃᐅᔨᓴᕋᕐᓴᓂᑦ ᐊᓯᖏᓐᓂ ᐊᖑᓇᓯᑦᑕᐅᔪᓂᑦ ᐃᒪᕐᒥᐅᑕᓂᑦ ᐆᒪᔪᓂᑦ ᓲᕐᓗ ᐃᖃᓗᐃᑦ ᐃᑲᓗᑦᑕᐅᓚᐅᖅᑐᓂᑦ ᓄᓇᓕᒻᒥᐅᑕᓄᑦ ᐊᕙᑦᑐᖅᓯᒪᔪᒥᑦ. ᑐᕋᓗᓇᔭᕗᑦ ᓄᐊᑦᑎᓗᑕ 30−50 ᒍᕋᓪᓵ ᓂᕿᖏᓐᓂ (ᓄᑭᖏᓐᓂ) ᐊᓯᖏᓐᓂ ᐆᒪᔪᓂᑦ ᓂᕆᔭᐅᓂᐊᖅᓯᒪᔪᓂᑦ ᖃᐅᔨᒪᑦᑎᐊᕈᓐᓇᓂᖅᓴᕆᓂᐊᕋᑦᑎᒍ ᓈᖃᑦᑕᕐᓂᖏᑦ ᓱᕈᓇᖅᑐᑦ ᓂᕆᖃᑦᑕᖅᑐᓂᑦ. ᓂᐅᕕᕋᔭᖅᑐᒍᑦ ᒥᑭᔪᓂᑦ ᖃᐅᔨᓴᕋᕐᓴᓂᑦ ᓄᓇᓕᒻᒥᐅᑕᓄᑦ ᐱᔭᐅᔪᓂᑦ ᐱᖃᓯᐅᑎᓗᒋᑦ ᓇᒥ ᐆᒪᔪᖅᑕᐅᓂᕐᒪᖔᑕ ᐊᓯᔾᔨᑎ ᓴᒪᐃᔭᐅᓯᒪᔪᓂᑦ ᓂᕿᓂᑦ. ᑐᕌᕐᓂᖅᖅᑐᒍᑦ ᓂᐅᕕᕐᓗᑕ 20−30 ᖃᐅᔨᓴᕋᕐᓴᓂᑦ ᓄᓇᓕᒻᒥᐅᑕᓂᑦ, ᑐᓐᖓᓂᖅᖅᑐᑦ ᖃᓄᐃᑦᑑᓂᖏᑦ ᖃᐅᔨᓴᕋᕐᓴᐃᑦ ᐊᑐᐃᓐᓇᐅᔪᓂᑦ ᖃᐅᔨᓪᓴᕐᓂᖅᖅᑎᓪᓗᒋᑦ. ᓂᐅᕕᕈᓐᓇᕈᑦᑕ ᐊᒥᓯᓂᑦ ᑖᒃᑯᓐᖓ ᓄᓇᓕᒻᒥ ᖃᐅᔨᓴᕋᕐᓴᓂᑦ, ᐊᑦᑎᓪᓕᕆᐊᓂᐊᖅᑕᕗᑦ ᐊᒥᓲᓂᖏᑦ ᐊᒻᒫᓚᔪᐃᑦ ᓄᐊᑕᐅᔪᑦ ᑕᓯᐅᔭᖅᔪᐊᒥᑦ.ᑲᑎᑦᑐᒥᑦ, ᑖᒃᑯᐊ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᑦ ᐊᒥᓲᓕᕆᔪᓐᓇᖅᑕᖏᑦ 3 ᖃᐅᔨᓴᖅᑎᓄᑦ ᓯᓚᑦᑐᓴᕐᕕᒃᔪᐊᒦᖕᖑᖅᑐᓂᑦ ᒫᓂᑑᐸ ᐊᒥᓲᓕᕆᔪᓐᓇᖅᑕᖏᑦ 7 ᐅᓪᓗᐃᑦ. ᑖᒃᑯᐊ ᐱᓕᕆᐊᕆᓂᐊᖅᑕᕗᑦ ᖃᐅᔨᓴᕋᕐᓴᐃᑦ ᕗᐃᓂᐸᐃᒥ ᐊᒻᒪ ᑐᓂᓗᒋᑦ ᖃᓄᐃᓐᓂᕆᔭᖏᑦ ᓄᓇᓕᒻᒧᑦ ᐅᖃᓕᒫᒐᕋᓛᖅᑎᒍ ᐊᒻᒪ ᑎᑎᕋᕐᕕᓂᑦ ᖃᓄᐃᓐᓂᕆᔭᖏᑦ. ᑐᑭᓯᒋᐊᕈᑏᑦ ᐊᑐᐃᓐᓇᐅᑎᑕᐅᓂᐊᖅᑐᑦ ᐃᓄᓐᓄᑦ ᖃᕋᓴᐅᔭᒃᑯᑦ ᐊᒻᒪ ᑐᑭᓯᒋᐊᕈᑏᑦ ᐊᑐᖅᑕᐅᔪᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᓴᖅᑭᖅᑎᑕᐅᔪᓂᑦ, ᑐᓂᔭᐅᓂᐊᖅᑐᑦ ᖃᐅᔨᓴᓂᕐᒧᑦ ᑲᑎᒪᓂᐅᔪᓂᑦ. ᑖᒃᑯᐊ ᐱᓕᕆᔭᐅᔪᑦ ᖃᐅᔨᓴᒃᑕᐱᓐᓇᑎᑦᑎᓂᐊᖅᑐᑦ ᓱᕈᓇᖅᑐᑦ ᖁᕝᕙᓯᓐᓂᖏᓐᓄᑦ ᐊᕕᑦᑐᖅᓯᒪᔪᓂᑦ ᐃᓄᐃᑦ ᓂᕆᒃᑲᑦᑕᖅᑐᓂ ᐆᒪᔪᓂᑦ ᑐᓯᐅᔭᖅᔪᐊᒥᑦ. ᑐᕋᒐᕆᔭᕗᑦ ᓇᓗᓇᐃᕐᓗᒋᑦ ᓇᒦᓂᑦᑕᓇᕆᔭᕐᓕ ᐊᑦᑕᓇᖏᓂᖅᓴᐅᒻᒪᖔᑕ ᓂᕿᔅᓴᓂᒐᓯᐊᓂᕐᒧᑦ ᐱᔾᔪᑎᖃᖅᑐᓂᑦ ᓯᕗᓕᖅᑐᓂᑦ ᖁᕝᕙᓯᓐᓂᖏᓐᓄᑦ ᐊᒻᒪ ᖃᐅᔨᒪᓇᓯᕆᐊᖃᕐᒪᖔᑦ. ᐱᔾᔪᑎᒋᓇᓱᐊᖅᑕᕗᑦ ᑐᓂᓯᓗᑕ ᑐᑭᓯᒋᐊᕈᑎᓂᑦ ᓱᕈᓇᖅᑐᑦ ᖁᕝᕙᓯᓐᓂᖏᓐᓄᑦ ᐊᒻᒪ ᐊᑦᑕᓇᕈᑎᐅᔪᓂᑦ ᑖᒃᑯᐊ ᓄᓇᓕᒻᒥᐅᑕᐅᔪᑦ ᖃᐅᔨᒪᑎᑕᐅᓗᑎ ᐃᓱᒪᓕᐅᕈᓐᓇᕐᓗᑎ ᐱᔾᔪᑎᖃᖅᑐᓂᑦ ᖃᓄᖅ ᐊᒻᒪ ᓇᒥ ᓂᕿᔅᓴᓂᒐᓯᐊᕈᓐᓇᕐᒪᖔᑕ.

Personnel

Personnel on site: 3

Days on site: 8

Total Person days: 24

Operations Phase: from 2025-08-10 to 2025-10-10

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Location for collection sites for softshell clams.	Scientific/International Polar Year Research	Marine	Locations of previous clam collections for DFO Baseline Monitoring sampling.	N/A	Within 5 km of Iqaluit and/or Apex

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Iqaluit	Jimmy Akavak	Amaruq Hunters and Trappers Association	2025-06-11

Authorizations

Indicate the areas in which the project is located:

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Fisheries and Oceans Canada	Application for scientific license depends on approval by NIRB	Not Yet Applied		
Hunters and Trappers Associations/Organizations	Letter of support received June 24, 2025	Active	2025-06-25	2026-06-25

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	Fly in and out of Iqaluit.	
Water	Travel by boat to sampling locations.	

Project accomodation types

Other,

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Information is not available			

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Information is not available						

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	Collected by bucket/hand	Collected from the side of the boat near clam sampling areas. Used for holding clams in lab.

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Information is not available				

Environmental Impacts:

The clams are to be collected by hand during extreme low tide from locations accessed by boat. We will hire a community member to help us access sampling locations via boat. The clams are very abundant in the study area and our sample sizes are small, therefore we will have minimal impact on the population.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description of Existing Environment: Physical Environment

Description of Existing Environment: Biological Environment

We aim to sample abundant clams from the nearshore in their natural environment.

Description of Existing Environment: Socio-economic Environment

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

There are no foreseen impacts.

Cumulative Effects

There are no foreseen cumulative effects.

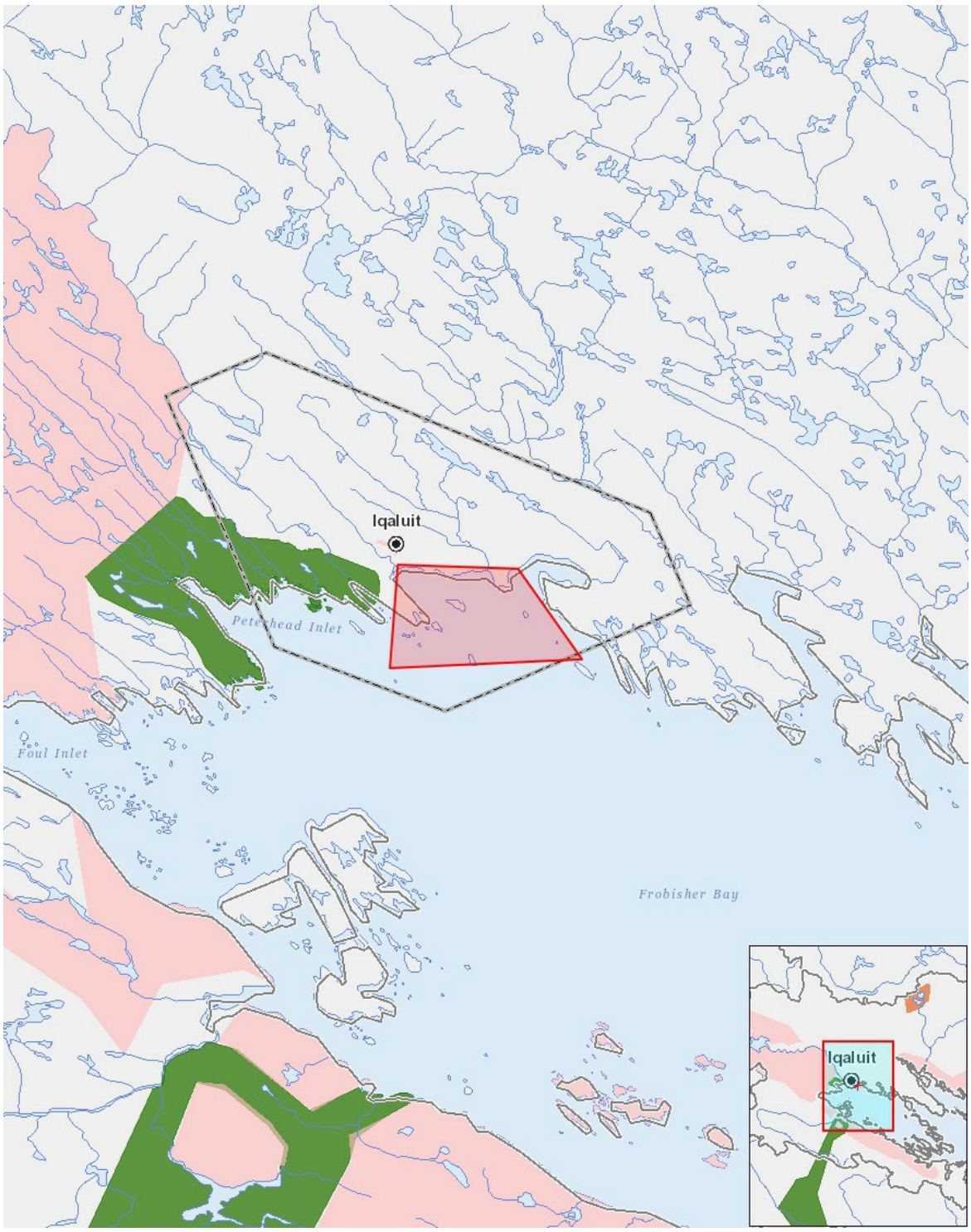
Impacts

Identification of Environmental Impacts

	PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Construction																									
-			-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-
Operation																									
Scientific/International Polar Year Research			-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	M	-		-	-	-	-
Decommissioning																									
-			-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1	polygon	Location for collection sites for softshell clams.