NIRB File No.: 22YN035

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June 27, 2022

Dear Mia Otokiak,

Re: Addressing comments received regarding University of Exeter's "ICAAP – Increasing Carbon Accumulation in Arctic Peatlands" project proposal.

Thank you for the opportunity to respond to the comments received during the public consultation.

1. Concerns regarding the Proponent not identifying the possible impacts of the research on wildlife, sediment and soil quality, air, and water quality.

We understand the importance of protecting the natural environment, and throughout our field work campaigns and in other regions we place this as a priority. Our sampling method is very low-impact, and we ensure that we take only the minimum amount of peat-soil needed. We cut vertical columns of peat soil of around 8cm square, then re-cut this column vertically, replacing more than half back in to the centre of the cut hole in the ground. In doing this, the area can quickly recover and fill-over. The tools we use for cutting are always kept clean. The exact site/transect we chose for sampling is one that does not disturb any local fauna, and we keep a distance from fauna in the vicinity. We do not use any local water, and do not use any chemicals/materials that could negatively affect soil, air or water quality. We do use a small diesel motor to power a soil corer that can cut through permafrost soils, we use this only once at each site for a long-core sample. We keep this equipment in good working order, and always ensure there are no leaks before going to the field and in operation.

2. Concerns regarding clarity on sampling locations, whether it is four or five sampling locations.

The commenter is correct that the number of sampling locations does not match the sampling strategy. The sites we identified for sampling are based on remotely sensed satellite data and on-line maps only. We will rely on local knowledge from the guide(s) we will employ to help us decide which sites we will sample. It also depends on accessibility of the sites (time to access), which we will also rely on local knowledge to inform us. As such, we are not yet certain which sites we can sample, this is the reason why the number of sites on the map, and the number of sites in the written proposal do not match.

3. Concerns regarding identifying fuel and spill related risks along with measures to mitigate incidents and/or accidents.

We will need to use locally-hired transport means to access the sampling sites (boat or ATV). We are identifying where we can rent this equipment through our contact at Pond Inlet council, and will only finally use equipment in good working order. We will ensure there are no leaks before we set-off and will also rely on the business we rent this equipment from to ensure these means of transport are safe for use. We will consult the business we rent from and the local guide as to the procedure to follow in the unlikely event of any spill/leak or other incidents or accidents.

4. Concerns regarding waste generated and management after the field work is completed.

As we state in the first point, our sampling strategy is very low risk, and we do not generate any waste using this method. In terms of waste generated by our visit to the field sites (i.e. from packed lunches etc) we always take all our waste with us, and take great care to not drop or lose anything in the field.

5. Concerns regarding the employment and training of local Inuit.

We state quite clearly in the proposal the importance to us of employing local guides and using local knowledge, essential to help us successfully complete our sampling strategy. We will be staying in a local hotel, and will hire local transport means (boat/ATV) from local businesses. We are in contact with the SAO of Pond Inlet (David Stockley) to help us find local guides and businesses with whom we can work. We appreciate the point raised, and agree that we want to work with the local community; we hoped we had made this clear in the original proposal. We are happy to share our sampling methods with the local community, and have proposed to present our work to them, and would like also to discuss with them any changes they have observed in the local environment over the last decades. Our project hypothesis is that Arctic peatlands are accumulating carbon with climate warming, if this is the case, then these natural undisturbed environments could be an important resource in the future as natural carbon sinks, which may be valuable to the local community.

6. Concerns regarding consultation with the Hamlet of Pond Inlet and Mittimatalik Hunters and Trappers Organization.

We have consulted with the council of Pond Inlet via the SAO David Stockley. Our project proposal was presented to the Pond Inlet council in May, and they supported our proposed work. We contacted the Hunter and Trappers Organization as well, but did not get a reply. As we are in close contact with Pond Inlet council, and will be meeting and working with the local community/businesses, we hope that the hunters and trappers can communicate any concerns/interest in our project through that means. We included in our project proposal the desire to exchange with locals for Inuit knowledge of changes seen in the landscape over the last several decades.

7. Concerns regarding contacting the Government of Nunavut to determine if any actions are needed to ensure the protection of Nunavut's archeological and paleontological resources.

Although our sampling methods are very low impact, we appreciate the point raised about archaeological and paleontological resources. We have contacted Sylvie LeBlanc, the Territorial Archaeologist with the Department of Culture and Heritage, to consult on mitigation strategies and possible risks. Further, in employing a local guide(s), we will avoid any known archaeologically important sites, we absolutely do not want to disturb these locations. We are fairly flexible on sampling locations, so can easily adjust them to avoid any sensitive areas. In the event that we do find any evidence of archaeological or paleontological resources during our sampling, we would stop sampling and follow any procedure in place to report these findings (we will confirm the procedure with Sylvie LeBlanc).

On behalf of our team,

Katherine Crichton