

December 22, 2020

Mosha Cote
Research Liaison
Nunavummi Qaujisaqtulirijikkut/Nunavut Research Institute (NRI)
Iqaluit, NU
X0A 0H0

Chairperson
Nunavut Impact Review Board (NIRB)
P.O Box 1360
Cambridge Bay, NU
X0B 0C0

RE: Scientific Research License #04 008 20R-M 2020 Annual Summary Report and 2021 Plans.

Dear NRI, NIRB and interested parties,

With this letter, I report on the river sampling activities of the project entitled, *Monitoring Seasonal Environmental Change in Rivers of the Kitikmeot Region*, permitted under the multiyear NRI licence number: **04 008 20R-M**. The goal of this project is to enhance our capacity to directly observe physical and biogeochemical characteristics of rivers across the Kitikmeot through the use of in-situ observational systems (“river moorings”) to collect measurements continuously over the deployment period. These river moorings will provide the first time series observations of river physical and biogeochemical parameters in the Kitikmeot Region, observations that are crucial to understanding and predicting the impacts of terrestrial change on the Kitikmeot marine system. This report describes the project activities carried out in 2020, and also details our plans for the 2021 field season, under the same license.

2020 Annual Summary:

Unfortunately, the covid-19 pandemic created several barriers to carrying out the river mooring deployments or river sampling activities that were planned for the summer of 2020. In particular, access to southern facilities to prepare the mooring equipment for shipment north and a lack of certainty about travel. We hope that new procedures in place will permit this observational program to go ahead in 2021, even if travel to the north is still restricted due to covid-19.

2021 Plans:

After the success of the 2019 test deployments of these new systems, we are still looking forward to sharing the results of the initial trial with the communities of Kugluktuk and Bathurst Inlet so that we can fine-tune deployments and recoveries for the future. In 2020 we submitted an addendum to this permit (NPC File # 149297) to include the deployment of a river mooring in Freshwater Creek, so we will also work with the community of Cambridge Bay to modify the design for deployments there. Although travel to the north during 2021 remains uncertain, we would like to request for a renewal of our permit to redeploy river moorings in the Coppermine, Burnside, and Tree rivers, and in Freshwater Creek in 2021.

As detailed in our original permit application, our primary plan will be to access rivers early in the season after spring ice break up (after mid-June 2021), with site selection as close to the river mouth as possible, keeping up-stream of the tidal influence. We will work with community members directly to choose mooring deployment locations. Mooring recovery will take place in late August or early September by small boat, either from the nearest community or using the aluminum skiff from the RV Martin Bergmann. If travel to the north is not feasible due to continued covid-19 restrictions, we will work with community partners through the Hunters and Trappers Organizations in Kugluktuk, Cambridge Bay, and Bathurst Inlet, to coordinate deployments remotely.

We appreciate your support and commitment to this investigation of rivers within the Kitikmeot. Any comments, suggestions, and/or ideas you may have related to this research are most welcome. If you have any questions, please contact myself or one of my collaborators and we would be happy to talk with you. We look forward to working with you in 2021.

Sincerely,

Kristina Brown
Fisheries and Oceans Canada
Ocean Sciences Division
Institute of Ocean Sciences
9860 West Saanich Road
Sidney, BC
V8L 4B2
Tel: (778) 835-8374
Email: Kristina.Brown@dfo-mpo.gc.ca

On behalf of the project's co-PIs:

Bill Williams, Research Scientist, Fisheries and Oceans Canada, Institute of Ocean Sciences,
Email: Bill.Williams@dfo-mpo.gc.ca

Donald McLennan, Lead Science Officer, Polar Knowledge Canada,
Email: donald.mclennan@polar.gc.ca

Kristina Brown, Research Scientist, Fisheries and Oceans Canada, Institute of Ocean Sciences,
Email: Kristina.Brown@dfo-mpo.gc.ca