



AGNICO EAGLE

January 25, 2018

Via email

Richard Dwyer
Licence Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Re: Opportunity to address comments received regarding 2BB-MEA1318 Water Licence Renewal Application

Agnico Eagle wants to thank the Nunavut Water Board (NWB) for giving Agnico Eagle the opportunity to provide supplementary information regarding the proposed project.

DFO requests information on the following elements:

1. *GPS coordinates for the sites of water taking:*

The main lakes used for water taking at the Amaruq project are:

- *Whale Tail Lake – 65.39406, -96.68860*
- *Nemo Lake – 65.42498, -96.69133*

To a lesser extent, other proximal lakes and ponds can be used for exploration drilling in regional activities and are also covered under this water licence.

2. *The types of water bodies from which water is being removed:*

Three major lakes are included in the area of the Amaruq Project. Whale Tail Lake is the largest one, located across the proposed site location and pits. Mammoth Lake is located on the west side of the proposed pits. Nemo Lake is located north of the pits and of Whale Tail Lake. Baseline lake water quality, sediment quality and fisheries studies were conducted in 2014, 2015, and 2016 to determine baseline conditions. Lake trout were found in all major lakes and Arctic char were found in Whale Tail Lake; typical phytoplankton, benthic invertebrate, and water quality characteristics of the lake were collected and the data are consistent with the general understanding of water quality in subarctic regions.



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3. *Information on the fish species and aquatic environment where the water is being taken:*

Fish and fish habitat baseline studies were completed in 2014, 2015 and 2016 in the Regional Study Area including these areas. Standard methods were followed for fishery inventories and lower trophic communities in the streams and lakes sampled in the RSA. Fishing efforts were also recorded with catch data to calculate catch-per-unit effort per study site. Lower trophic community (phytoplankton, zooplankton, benthic invertebrates, and periphyton) baseline studies were completed. To characterize fish habitat, bathymetric surveys were conducted and substrate was mapped in area lakes and affected watercourse crossings. Potential or actual fish passage was assessed in water courses and connections between key lakes.

In project lakes and streams, six species were captured in total: Lake Trout, Arctic Char, Round Whitefish, Burbot, Slimy Sculpin, and Ninespine Stickleback. Lake Trout and Round Whitefish are the dominant large-bodied species followed by Arctic Char in the lakes surveyed. Ninespine Stickleback and Slimy Sculpin commonly occur across habitats sampled. Burbot is uncommon, and Arctic Grayling are not found in the Regional Study Area and are restricted to downstream locations outside the boundaries of the RSA. The nature of the connecting channels (i.e., channel dimensions are wide and flat, flows are shallow or subsurface, extensive boulder fields are common) may prevent fish access to headwater lakes, as similarly described for the fish distribution at the Meadowbank Mine. Movements of large-bodied fish (e.g., adult fish species) between lakes may be limited to the spring freshet period; however, juveniles may use stream connections for foraging and migration habitat. During workshops, Elders noted that although trout is found throughout the region, the lakes near Whale Tail Pit are not commonly fished as there are other preferred lakes. However, several Elders noted that they or other community members used the area along the Amaruq road for fishing with their families when they were younger.

All of the conventional water quality parameters (e.g., pH, major ions, nutrients, metal concentrations, and limnological data) indicated that the quality of the water within the study areas at Meadowbank, Amaruq and reference lakes prior to mine development are pristine with low levels of contaminants. Water quality monitoring programs conducted as part of the Amaruq exploration project comply with our operational licenses.



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4. *Total volume and/or instantaneous flow measurements for the waterbodies/watercourses from which the water will be taken"*

Whale Tail Lake:

Maximum Lake Storage – 8,510,000 m³

Annual outflow – 3,229,668 m³

Nemo Lake:

Maximum Lake storage – 8,360,000 m³

Annual outflow – 462,914 m³

Additional information regarding waterbody characterizations in the Amaruq area was submitted to the Nunavut Impact Review Board during the Whale Tail Pits Project process and can be consulted in file 16MN056 via public registry on the NIRB website <http://nirb.ca/application?strP=r>.

Should you need additional information, please contact us.

Regards,

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