



Environment Environnement
Canada Canada

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Our file: 4705 037 POLA

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Via Email at srtech@nwb.nunavut.ca

RE: NWB1POL0311 – Garrow Lake Dam Decommissioning Drawings

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

TeckCominco Ltd. is proposing to decommission the Garrow Lake Dam at the Polaris Mine Site as per the requirements of their water license, and has submitted technical specifications and drawings in relation to this work. Environment Canada offers the following comments in regards to these documents:

- The proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes or sediment into any water body. According to the *Fisheries Act*, Section 36(3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.
- The technical specifications make no mention of plans to remove the two thickener discharge pipelines in Garrow Lake. Environment Canada requests information regarding TeckCominco's plans to decommission these pipelines, or their rationale for leaving them in place.
- When is the proposed work slated to occur? According to the Polaris Mine Decommissioning and Reclamation Plan, the drawdown of Garrow Lake required to restore it to its original elevation should not occur prior to melting of the sea ice.
- The Decommissioning and Reclamation Plan states that sand/silt will have been deposited on the upstream face of the dam over the years due to wave action. If this material is contaminated, TeckCominco shall ensure that it receives proper treatment and/or disposal in an approved location.
- The drawings and technical specifications make no reference to measures that will be taken to ensure there is no thaw subsidence on the portion of the dam that is to remain. The Garrow Lake Dam Decommissioning report, filed by EBA Engineering, makes reference to plans to pull the dam core back away from the final slopes to prevent thawing and sloughing. What plans are in place to ensure that the final slopes of the dam remain stable?

- The Scope of Work included with the technical specifications indicates that the wave break structure is to be removed and remediated as part of this proposal. However, no further details are given regarding this work. Environment Canada requests information regarding excavation and disposal of this material, as well as any plans to prevent sedimentation of the waterway during removal.
 - While the use of a silt fence, or other approved method is currently proposed for the area downstream of the dam, EC recommends that another silt fence (or other appropriate preventative measure) be used downstream of the wave break structure to prevent sedimentation during its excavation.
- The technical specifications indicate that a small cofferdam may be constructed upstream of the toe of the existing dam to control discharge during construction. Will this structure be constructed using materials excavated from the decommissioning of the dam, or will quarried material be used? Environment Canada recommends that any material used for its construction be clean and free of fines.
- The proponent shall ensure that the sump, which is to be used to collect any seepage through the cofferdam, is backfilled and remediated prior to removal of the cofferdam.
- The proponent shall ensure that the location for any stockpiled material from the excavation work is above the high water mark and located in such a manner as to prevent the contents from entering any waterbody.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4639 or by email at colette.meloche@ec.gc.ca.

Yours truly,

Colette Meloche
Environmental Assessment Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)