March 1, 2016

Wek'eezhli Land and Water Board
ATTN: Sarah Elsasser
Regulatory Manager
1-4905 48th St.
Yellowknife, NT X1A 3S3

Dear Dr. Elsasser:


Fisheries and Oceans Canada’s Fisheries Protection Program (DFO-FPP) would like to thank the Wek’eezhli Land and Water Board for the opportunity to provide comments on Diavik Diamond Mines (2012) Inc.’s Application to amend Water Licence W2015L2-0001 regarding maximum concentrations of Total Suspended Solids (TSS).

Please find attached DFO-FPP’s final closing arguments following the Public Hearing for your consideration, which summarizes our recommendations put forward in our Intervention and in our Hearing presentation.

If you have any questions, please contact Julie Marentette at 867-669-4934, or by email at Julie.Marentette@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with DFO-FPP.

Yours sincerely,

Julie Dahl
Regional Manager, Regulatory Reviews
Fisheries Protection Program

COPY LIST:
Julie Marentette (DFO)
Fisheries and Oceans Canada
Closing Arguments
Wek'eezhii Land and Water Board
Water Licence W2015L2 – 0001 Amendment - TSS
Diavik Diamond Mines (2012) Inc. – Diavik Diamond Mine Project

Fisheries and Oceans Canada (DFO) is pleased to provide the following closing arguments to the Wek’eezhii Land and Water Board (WLWB) regarding the proposed amendment to Water Licence W2015L2-0001, for Diavik Diamond Mines (2012) Inc. (DDMI)’s Diavik Diamond Mine Project.

DFO is participating in the assessment of the Water Licence amendment as an Intervenor to assist the WLWB in their assessment of potential environmental impacts associated with the revision to the Total Suspended Solids (TSS) limit specified in the Water Licence, Part H, Item 31. DFO’s primary focus in reviewing proposals is to ensure that works, undertakings and activities are conducted in a manner that complies with the applicable provisions of the Fisheries Act and for which DFO is the responsible Minister.

Below is a summary of recommendations related to DFO’s mandate based on our review of all submitted documents and evidence provided during the Public Hearing that occurred on February 12, 2016.

Below, we also provide clarification on the mandate of DFO with respect to various sections of Fisheries Act that we hope is helpful to the Board.

Recommendations

3.1.1 DFO recommended that the WLWB consider amending Part H, Item 31 as suggested by either DDMI or other reviewers.

DFO notes that none of the proposed limits for TSS are expected to result in a contravention of DFO’s mandate under Fisheries Act Section 35(1), which prohibits serious harm to fish.

3.1.2 DFO recommended that the averaging period of the TSS limit should be chosen to maximize efficiency of corrective action levels, ensuring that DDMI is able to modify construction practices to quickly and effectively mitigate elevated TSS occurrences as a result of dike construction.

DFO noted during the Public Hearing that the risk of a 30-day moving average resulting in the TSS limit being exceeded after a peak in TSS concentration had already occurred could be reduced by not incorporating background values within the first 30 days of construction, or by utilizing a shorter averaging period such as 7 days. Alternatively, DFO suggested that quick and effective mitigation may also be achieved through action level triggers in a revised Construction Environmental Management Plan (CEMP).
3.2.1 DFO recommended that DDMI clarify the rationale for the use of 50 mg/L TSS for the first three trigger levels, and 22 mg/L TSS for the final trigger level, as well as the associated actions to be taken, as these are not the values proposed by DDMI during the initial Water Licence Amendment Application, nor have they been specifically proposed by reviewers. DFO recommends that the trigger levels be integrated in a revised version of the A21 CEMP to be submitted by DDMI for later review before construction in 2016.

DFO notes that DDMI has committed to providing a revised CEMP before construction in 2016, as requested by Intervenors.

**Definition of Fish and Fish Habitat according to the Fisheries Act**

*Fish* are defined under the *Fisheries Act* (Section 2) as:

  a) Parts of fish  
  b) Shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and  
  c) The eggs, sperm, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals.

“*Fish habitat*” is defined under the *Fisheries Act* (Section 2) as:

  Spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes.

**Clarification on the mandate of Fisheries and Oceans Canada- Fisheries Protection Program**

The mandate of the DFO’s Fisheries Protection Program (FPP) is to maintain the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries. The FPP achieves this mandate through the administration of the Fisheries Protection Provisions of the *Fisheries Act*, most notably subsection 35(1) which prohibits works, undertakings or activities that result in *serious harm to fish* that are part of, or support, a commercial, recreational or Aboriginal fishery. *Serious harm to fish* is defined in the *Fisheries Act* (Section 2) as the death of fish, permanent alteration to, or destruction of fish habitat.

Deleterious substances, which may include sediment, are defined in the *Fisheries Act* (subsection 34(1)), in part (a), as:

  Any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water.
Pursuant to a Designation Order on February 28, 2014, Environment and Climate Change Canada (ECCC) is the responsible Minister for the administration and enforcement of subsections 36(3) through (6) of the *Fisheries Act*, which prohibits the deposition of deleterious substances in waters frequented by fish. Thus, DFO no longer has the regulatory mandate to provide guidance on the establishment of water quality guidelines for potentially deleterious substances, including suspended sediments in water, guidance on the specific techniques or methodologies by which water quality is monitored, nor guidance on toxicological thresholds of exposure for the protection of either fish or aquatic invertebrates. DFO also does not have the regulatory mandate to provide guidance on impacts to fish as a result of exposure to deleterious substances, such as changes in fish health. Given, however, that a deposit of sediment in waters frequented by fish can cause the death of fish and the permanent alteration of habitat, and therefore be considered *serious harm to fish* under subsection 35(1) as well as a deposit of a deleterious substance under subsection 36(3) of the *Fisheries Act*, occurrences related to deposit of sediment into fish-frequented waters will involve the cooperation and coordination of both response and enforcement efforts between DFO and ECCC on a case-specific basis.

**Clarification on non-fish organisms and the *Fisheries Act***

Zooplankton, phytoplankton and other organisms that may be consumed by fish such as aquatic macroinvertebrates, apart from shellfish and crustaceans, are not included in the definition of *fish* under the *Fisheries Act*. Such organisms are likely to be present in areas that serve as *fish habitat* (e.g., food supply areas).

**Conclusions**

If the WLWB approves the Amendment to Water Licence W2015L2-0001, DFO will continue to work with DDMI and other parties regarding TSS-related issues that relate to DFO’s mandate.

DFO would like to thank the WLWB for giving DFO the opportunity to provide input into the amendment process for Water Licence W2015L2-0001.