

**Comments on Impact on water quality and fish habitat**

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Cree Nation of Nemaska  
COMEX hearing on the Whabouchi Lithium project, Nemaska, March 30th, 2015

1. **Importance of Mountain Lake (Chinuchi sakhigan)**

Chinuchi Sakhigan is used by most of our members, for fishing, hunting, recreational activities, traditional gatherings, as well as many community and tourism activities. Many youth, adults and Elders enjoy the lake all year long.

2. **Ecotoxicologists' report**

My Department of land and sustainable development has commissioned an Ecotoxicology Expert Report from Professors Patrice Couture and Peter G.C. Campbell, from the INRS Eau Terre Environnement, which I am providing to the COMEX. The comments below are based in part on this report.

see other document attached

3. **Potential water contamination**

One of the major concerns of my department is potential water contamination, in particular of Chinuchi Sakhigan. This has also been expressed by many community members.

We understand that in the context of this possible project, this can happen in two ways: through physical erosion and by contamination. We have recommendations to make concerning the proponent's proposed measures concerning contamination.

**=> Basically, we feel the proponent has minimized the possibility that the effluent from the mine could contaminate Mountain Lake and the proponent is not necessarily well-prepared to deal with such a situation.**

Indeed, there is some confusion in the proponent's documentation regarding the effluent that will be released into Mountain Lake.

We make the following recommendations:

=> The proponent needs to describe the exact chemical nature of the reagents used in the concentrator and in the settling basins.

=> Based on the experience of the Raglan Mine, we doubt that the effluent can be completely recycled over several years. The proponent needs to prepare and provide a detailed plan of action regarding treatment of the effluent, in the case that it does not respect the Directive 019.

=> We are concerned that the effluent could be contaminated not only by suspended solids, but also by organic and inorganic contaminants. How will the proponent treat the organic and inorganic contaminants?

=> What impact could contamination have on the watershed downstream of Mountain Lake (including Lake Caumont- *KaNeutineuiyat* "Four-mouth lake", Champion Lake, and Nemaska Lake, where our original settlement, Old Nemaska is)?

=> Concerning monitoring during operations, we consider that the following parameters should be added: beryllium, cadmium and copper.

#### **4. Potential impact of project on fish**

##### **4.1 Due to water quality**

=> Fishing in Mountain Lake, Spodumene Lake and the areas downstream is very important to Nemaska Eeouch. We propose that Water quality and Fish health be a key element reviewed on a regular basis by the project's future Joint Environmental Monitoring Committee.

Furthermore, **the monitoring plan proposed for water and fish is incomplete**. The proponent needs to submit a detailed protocol, which would include:

- *providing the chemical composition of the process water;*
- *a publically available sampling schedule;*
- *rather than only have monitoring at lake 18 and No-name creek, we recommend having a minimum of three control river sites and three control lake sites, including outside of the impact zone, in order to interpret the effect on fish in impacted zones;*

- *monitoring fish population and contamination in Mountain Lake and Spodumene Lake;*
- *initial survey of potential fish habitat at the outlet of Mountain Lake, flowing into Lac Valiquette, where the effluent will ultimately end up, and inclusion of this downstream site if demonstrated as fish habitat;*
- *monitoring the success of the new spawning grounds annually.*

#### **4.2 Fishing by Mining Workers**

We agree that the proponent should educate its workers with respect to the impact of fishing and hunting, and consider that a general orientation on Cree culture and values should be carried out.

We are not satisfied with the mitigation measures proposed by the proponent regarding non-native hunting and fishing. As I will explain in my next presentation with respect to Weh-sees-Indohoun, a monitoring committee is necessary to minimize impact on our constitutionally protected treaty right to hunt and fish in our territory.