



Snap Lake Mine Water Licence Renewal and Land Use Permit Application

Presentation to the Mackenzie Valley Land and Water Board

Environment and Climate Change Canada

Public Hearing
November 26-27, 2019
Yellowknife, NT



Overview

- Mandate
- Relevant acts and regulations
- Status of Environment and Climate Change Canada's technical comments
- Comments and recommendations from final intervention



Environment and Climate Change Canada's Mandate

- preservation and enhancement of the quality of the natural environment, including water, air and soil quality;
- coordination of the relevant policies and programs of the Government of Canada;
- renewable resources, including migratory birds and other non-domestic flora and fauna;
- meteorology; and
- enforcement of regulations



Relevant acts and regulations

- *Department of the Environment Act*
- *Canadian Environmental Protection Act*
- *Fisheries Act* – Pollution Prevention Provisions
- *Migratory Birds Convention Act*
- *Species at Risk Act*



Technical comments

Current Status of ECCC Technical Comments

ECCC-TC1	Sediments in the water management pond	Resolved
ECCC-TC2	Climate change incorporation	Resolved
ECCC-TC3	Mixing zones rationale	Resolved
ECCC-TC4	Treatment wetland testing	Resolved
ECCC-TC5	Treatment wetland plans	Resolved
ECCC-TC6	Water quality monitoring in mixing zones	



Technical comments

Current Status of ECCC Technical Comments

ECCC-TC7	Site water quality model description	Resolved
ECCC-TC8	Water quality model parameters	Resolved
ECCC-TC9	Site wide closure objectives	Resolved
ECCC-TC10	Blending of PAG rock	Resolved
ECCC-TC11	Classification of PAG rock	Resolved
ECCC-TC12	North pile cover thickness	Resolved



Final intervention comments

Status of Final Intervention Comments

ECCC-TC6 ECCC-FIC1	Water quality monitoring in mixing zones	
ECCC-FIC2	Effluent quality criteria during closure	
ECCC-FIC3	Nitrate effluent quality criteria	



Post–Closure Aquatic Effects Monitoring Program – Sampling Frequency

ECCC recommends that the proponent:

- Provide criteria for establishment of “stable” or “decreasing” such that the proponent can demonstrate that a reduction in sampling frequency is warranted;
- And, consider reducing water quality monitoring frequency based on results using a tiered approach, with sampling continuing over a longer period of time at a lesser frequency once “stable” or “decreasing” water quality trends have been established, rather than a complete discontinuation after establishment of a 3 year trend.

Post –Closure Aquatic Effects Monitoring Program – Sampling Frequency

- ECCC further recommends that the MVLWB not consider the AEMP for approval as part of the water licence process and instead undertake a separate review for approval based on the final approved closure configuration.

ECCC-FIC2

Effluent Quality Criteria During Closure

ECCC recommends that the proponent:

- to increase certainty in effluent concentrations during the closure phase, before transitioning to post-closure, the proponent should maintain two separate lists of regulated parameters associated with the closure and the post-closure phase; and
- include all parameters under the existing licence on the EQC list for the closure phase.



ECCC-FIC3

Nitrate Effluent Quality Criteria

- ECCC recommends the proponent consider treatment options for nitrate during closure, as necessary, to comply with the pollution preventions provisions of the *Fisheries Act*.



Thank You

