

IR Number: IR0607-003-11

Source: Lutsel k'e Dene First Nation (LKDFN)

To: GNWT

Issue: Noise Impacts

Preamble

In section 6 of the LUP application, for noise levels it states that *"noise levels are not expected to exceed 94 bBA at 10m beyond the drill rig and will be well below any current regulatory criteria"*. In the Golder report (3.7.2.2), it states that *"while there are no published noise criteria in the NWT, the Alberta Energy and Utilities Board remote area criteria at 40 dBA at 1500m from activity is often used"*.

Request

Please clarify what the current regulatory criteria are for noise levels, how they are determined, and if there are species-specific criteria. If no NWT specific criterion exists, please explain which other criteria may be used and how they are to the NWT in general and the Thelon area in particular.

Response

The GNWT does not currently have criteria for ambient or remote area noise levels. This information request would be better directed to the federal regulatory authorities: Indian and Northern Affairs Canada (INAC) for the land use permit and Environment Canada.

We currently have no guidelines related to noise thresholds for minimizing impacts to wildlife. The Alberta Energy and Utilities Board remote area criteria of 40 dBA at 1500m may not be applicable to the NWT in general or the Thelon area in particular. This guideline was developed in rural Alberta where there is some level of background industrial noise and for human receptors as opposed to wildlife. Our understanding of how the value of 40dBA was derived, was by adding 5dBA onto the measured nighttime ambient noise level. In rural Alberta, this level was determined to be 35 dBA. Areas of the NWT, or Thelon area specifically, will likely have ambient noise levels that are lower than those in rural Alberta.

The Division's approach to minimizing sensory impacts on wildlife during sensitive time periods is to use spatial and temporal restrictions for when development activity can occur in a particular area.

An example of this would be the Caribou Protection Measures that restricted development activity in annually defined calving and post-calving areas of barren-ground caribou. While no longer utilized, our Division makes similar recommendations based on the movements and location of caribou and the sensitivity of their condition during key time periods.

For this project in particular maps of caribou locations show that it is likely caribou will be present in the project area during the period of operations and that they will be particularly sensitive to disturbance.

The kinds of restrictions we would recommend for this Project to reduce sensory impacts to caribou include:

- Activities not occur during the month of May when cows are migrating towards their respective calving grounds.
- If caribou are encountered during development the proponent should shut down operations if they approach within 500m of drilling operations/sites; suspended activities include drilling, aircraft overflights, and ATV or snowmobile use outside the immediate vicinity of the camp. When caribou are further than 500m away operations may resume.
- Aircrafts overflights by helicopter and fixed-wing aircraft can disturb caribou increasing stress to the animals and potentially extending to effects on overall health and condition, especially during late winter and spring when animals have a negative energy balance. As a result, minimum altitudes of no less than 300m should be maintained at all times other than landing or taking off. Further, wildlife should not be approached closer than 500m, chased or harassed by aircraft or other motorized vehicles.
- Concentrations of caribou should be avoided by low-level aircraft at all times (altitude less than 300m).

Other examples of spatial and temporal restrictions for other species include the use of buffers between the nest sites of raptors or the densites of carnivores and development activities during the nesting/denning periods. Buffer widths are based on research results that demonstrate the sensitivity of particular species to disturbance.