



Appendix

GN-01: Terrestrial Wildlife Effects	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Terrestrial Wildlife interaction with the Project
References	<ul style="list-style-type: none"> • NIRB Application for Screening #125461 – Hood River Gold Project – Blue Star Gold Corp. • NIRB Public Notice of Screening and Comment Request for Blue Star Gold Corp.'s "Hood River Gold Project" Project Proposal • Effects Assessment (2019) – Hood River Gold Project – Blue Star Gold Corp. • Environment and Heritage Resources Protection Plan (2019) – Hood River Gold Project – Blue Star Gold Corp. • Project Description (2019) – Hood River Gold Project – Blue Star Gold Corp. • Wildlife Protection Plan (2019) – Hood River Gold Project – Blue Star Gold Corp. • The Bathurst Caribou Range Plan (2018) – Government of the Northwest Territories. • Environmental Dynamics Inc. (EDI). (2008). Yukon Environment - Flying in Caribou Country – How to minimize disturbance from aircraft • Poole, K.G. and Gunn, A. (2015). Mobile Caribou Conservation Measures for the Kivalliq Region, Nunavut. Final report for Kivalliq Inuit Association.
CONCERNS	
<p>The Project proposal contains insufficient information, which impedes the GN's accurate assessment and review of the Projects potential environmental effects. The Project may potentially cause significant adverse impacts on wildlife habitat if the appropriate mitigation is not identified and implemented.</p> <ol style="list-style-type: none"> 1. <u>Cumulative Impacts on Caribou Ranges</u>: The proposed Project area is located within the annual ranges of Dolphin-Union and Bathurst caribou herds and the Project activities may affect caribou migration. The Project area is also adjacent to the Bathurst caribou herd calving area and within the Bathurst caribou herd post-calving area (see figure 1). The potential impacts of the Project activities may affect these areas and cause caribou disturbance during calving and post-calving. <p>The proposed Project, together with other existing and approved Projects in the area (e.g. Tibbit road, Sabina road, Lupin Winter Access road), may cause cumulative effects</p>	

on Dolphin-Union and Bathurst caribou herd's habitat quality and abundance. The cumulative effects may also affect other wildlife and vegetation. The proposed exploration activities are scheduled for May – October, potentially beginning as early as March. The Project's schedule overlaps with the Bathurst caribou herd calving and post-calving, which occurs throughout June. The Project proposal does not reflect potential impacts on Bathurst caribou herd calving and post-calving areas and does not provide an assessment of the cumulative effects on caribou herds in the area. In particular the Project application indicates no cumulative effects without providing any substantiation.

It is not clear if and how the Proponent used IQ data to identify seasonal caribou areas.

2. Project Activities: The exploration surveys and associated activities may disturb wildlife by converting/degrading terrestrial habitat as indicated but not limited to:
 - Low altitude flights, take offs, and landings during geophysical surveys and logistics operations;
 - Generation of noise from drilling;
 - Generation of overpressure and vibration from blasting (e.g. seismic exploration);
 - Construction and operation of a seasonal camp;
 - Waste and chemicals management;
 - Spill prevention and management.

The description of Project activities in the Public Notice of screening includes airborne and ground-based geophysical surveys but no geophysical surveys are mentioned in the Project description. The Project Application states that:

“Geophysical and other airborne surveys may be undertaken in the future if needed.” (NIRB Application for Screening #125461)

No details on potential environmental impacts of these surveys were provided in the application. The Project description should include a consistent description of all planned activities, provide for an assessment of impacts, and propose an adequate mitigation to address any adverse environmental effects.

3. Environmental Assessment and Mitigation: The Project proposal lacks information related to the environmental impacts and mitigation measures. The effects assessment table indicates that the residual impacts on wildlife are not predicted after implementation of the Wildlife Protection Program (Effects Assessment, 2019). The Environment and Heritage Resources Protection Plan (2019) does not discuss impacts on wildlife. The Wildlife Protection Plan (2019) mentions indirect habitat loss and disruption of movement as the interaction pathways but only the risk of direct and indirect mortality is discussed and assessed. No assessment of habitat loss and disruption of movement is provided in the Wildlife Protection Plan (2019) and other Project application documents. A cumulative effects assessment should be conducted for caribou, including all existing and planned Projects in the area.

The Proponent shall not construct a camp within calving and post-calving areas.

The proposed mitigation of Project effects on caribou is not consistent. The Wildlife Protection Plan (2019) states:

“If wildlife are observed, pilots will avoid wildlife by 300 m, except where low-elevation surveys are required, during take-off and landing, and at pilot’s safety discretion.” (Wildlife Protection Plan (2019); Section 5.5).

Typically the required altitude for flights where caribou are present is 600 m during calving and post calving, and 300 m for other times of the year (EDI, 2008). Flights over areas where caribou have been seen in the past and core calving areas should be avoided. Mineral licks shall be avoided by 1 km during the spring time. Although similar avoidance measures mentioned in the Wildlife Protection Plan (2019); Table 4, there has to be a clear statement that no low altitude aerial surveys shall be allowed if caribou are present in the area.

The Wildlife Protection Plan (2019) states that it includes mitigation measures that align with the concept of the mobile caribou conservation measures developed for the Kivalliq Region but no detailed comparison is provided and no mechanism is proposed to assess their effectiveness (Poole and Gunn, 2015).

RECOMMENDATIONS

The GN suggests that missing information is necessary for the Board to conduct its screening. Accordingly, the GN asks that the NIRB exercise its power pursuant to s. 144(1), and direct the Proponent to provide the information described below:

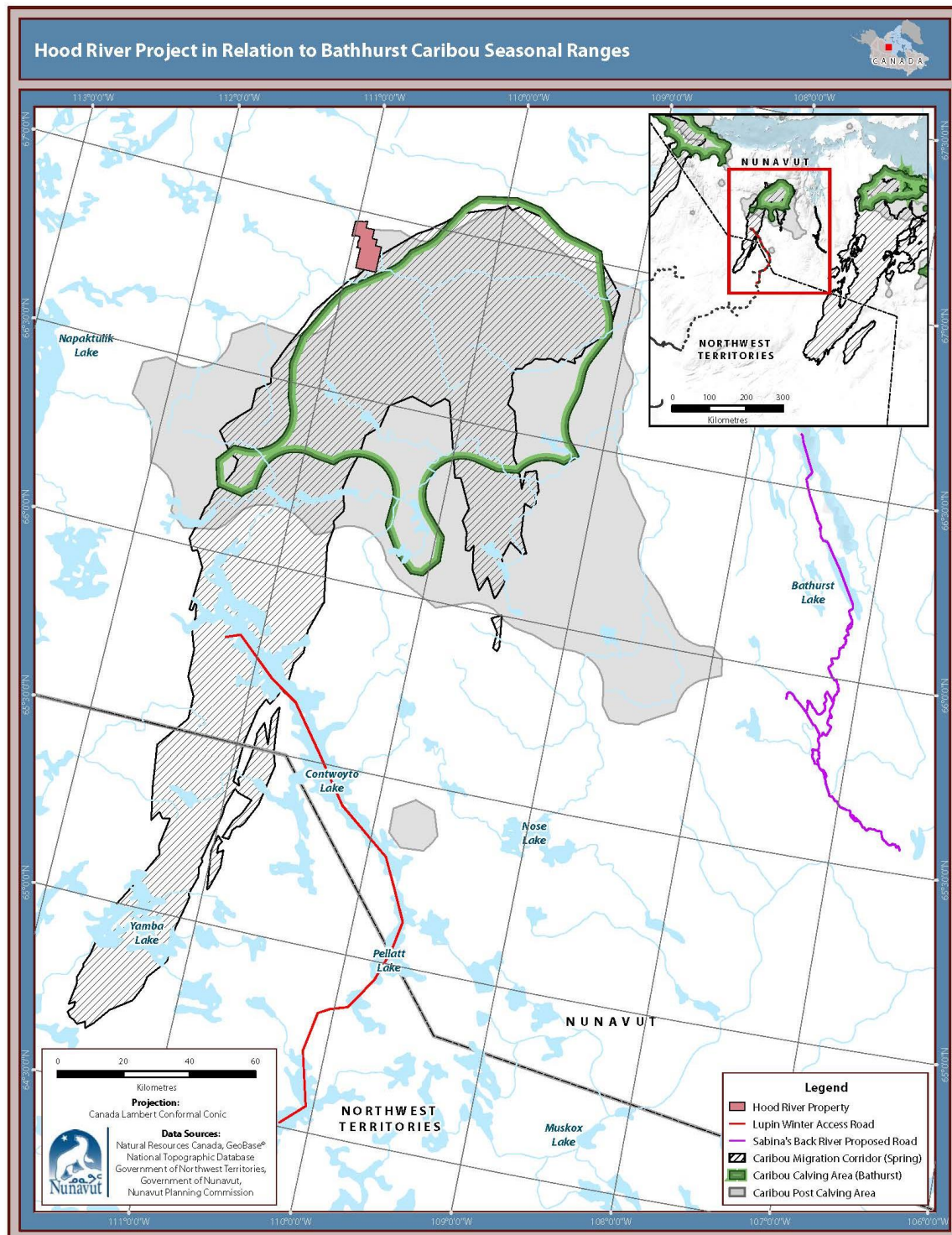
1. A complete Project description with necessary details related to the proposed geophysics surveys;
2. The Project’s Zone of influence;
3. An assessment of potential cumulative effects;
4. Revision of the Wildlife Protection Plan that includes the detailed description of proposed mitigation measures and a monitoring program to ensure proposed mitigation is effective.

The GN further recommends that the Proponent co-ordinate the development of the environmental information with the Government of Nunavut’s regional biologist and local wildlife conservation officers in dealing with their mitigation measures and response measures.

ADDITIONAL COMMENTS

N/A

Figure 1: Hood River Project in Relation to Bathurst Caribou Seasonal Ranges



GN-02: Archaeological Considerations	
Department	Culture and Heritage
Organization	Government of Nunavut
Subject/Topic	Archaeological Considerations
References	NIRB Notice of Screening
CONCERNS	
<p>Blue Star Gold Corporation is proposing to conduct exploration related activities in the Hood River Property in the Kitikmeot region, approximately 200 kilometers southeast from Kugluktuk. The project is proposed to take place from June 2019 to June 2024 and will include: establishing of a temporary seasonal base camp to accommodate 60 personnel; conduct prospecting and ground-based geophysical surveys; conduct on-land drilling exploration activities; use of existing airstrip.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The proponent's archaeologist has already filed a Class 2 permit application to conduct the archaeological assessment of the different components associated with the proposed exploration activities in the Hood River Property.</p> <p>The Department of Culture and Heritage recommends that the applicant should avoid conducting activities in the vicinity (50 m buffer zone) of archaeological/historical sites. If archaeological sites or features are encountered, activities should immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to our office.</p> <p>All archaeological and palaeontological sites in Nunavut are protected under the Nunavut Act. The Proponent must understand that it is their responsibility to ensure that no heritage resource sites are disturbed in the course of their activities. No person shall alter, or otherwise disturb an archaeological site, or remove any artifact from an archaeological site without the proper authorizations. Moreover, the building of inuksuit is not recommended.</p>	
ADDITIONAL COMMENTS	
N/A	