



YESAB Assessment Officer
Mayo Designated Office
Sent via email to: mayo.do@yesab.ca

May 17th, 2021

RE: YESAB Public Comment for Banyan Gold Corp Quartz Exploration – Nitra and Aurex-McQuesten Amendment (Project No. 2021-0017-0022).

Dear YESAB Assessment Officer,

Thank you for the opportunity to submit comments on the Banyan Gold Corp Quartz Exploration Project, approximately 25km north of Mayo in the old Aurex-McQuesten Property, the newly added Aurex-McQuesten Claims and the new Nitra Property (hereafter 'Project'). We are submitting these remarks in our capacity as conservation scientists on behalf of Wildlife Conservation Society (WCS) Canada. WCS Canada is a national non-government organization of scientists conducting research on species and ecosystems to inform conservation decisions. Our role is to provide long-term, site-based, research and syntheses of science that inform policy and practice and that support the implementation of effective conservation measures. We do this by providing technical advice and by engaging relevant decision-makers at all levels, from local to federal. WCS Canada scientists have been working in Yukon since 2004 on land use and protected areas planning, land and water management, wildlife conservation research, and policy applications for conservation science. Dr. Chrystal Mantyka-Pringle has contributed scientific expertise to land use planning and management, and environmental assessments in Yukon and Northwest Territories since 2014, and has three active collaborative research projects in the McQuesten area on cumulative effects of land-use and climate change in partnership with the First Nation of Na-Cho Nyak Dun, Yukon Environment, and Canadian Wildlife Service. Dr. Hilary Cooke has also contributed scientific expertise to land use planning, forest management, wildlife policy, and environmental assessments in Yukon since 2010.

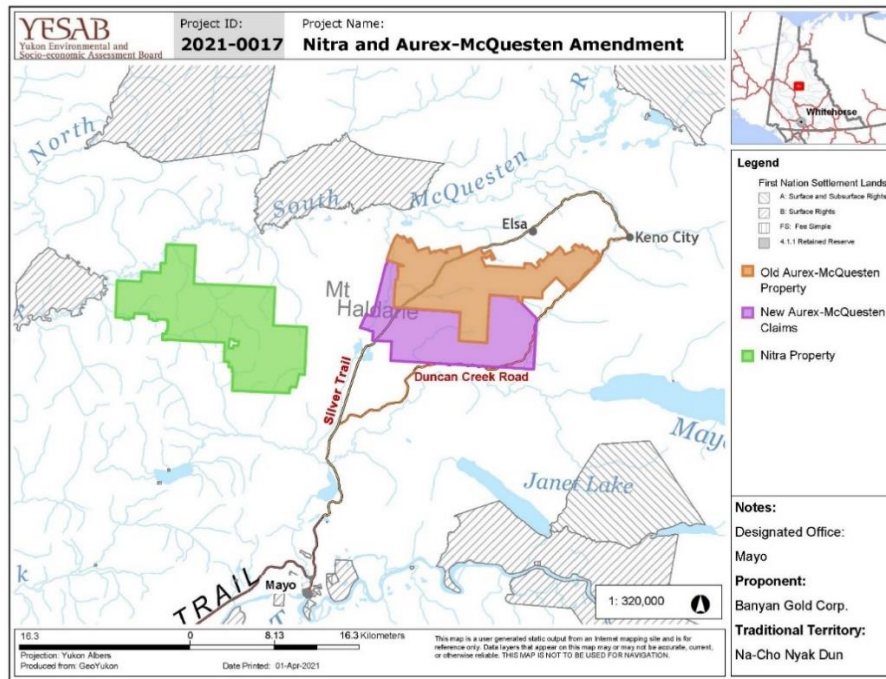
Our Project Assessment

While WCS Canada has expertise in numerous issues relevant to the application for project amendment, we focus our comments on impacts of additional access, lack of mapping and inventory of wetlands, and impacts on moose populations.

The addition of 994 claims (total 1 500 claims) and increased access **totalling 315 km of new linear access and 784 km² of new footprint** by way of:

- New roads on-claim: up to additional 45 km x 10 m wide (total 65 km)
- New trails on-claim: up to additional 90 km x 8 m wide (total 120 km)
- Upgrading up to 35 km of on-claim existing roads
- New temporary trails on-claim: up to 70 km (total 80 km)
- Use of existing fords: up to 20 existing (estimated 5-6 annually)
- Up to 8 new fords
- Year round use of off-trail and off-road vehicles
- Cutlines: up to additional 40 km x 5 m (total 55 km)
- Corridors: up to 25 km x 5 m
- Clearings: up to additional 6 000 clearings (total up to 7 500 clearings)
- Trenching: up to 150 (dimensions 100 m x 2 m x 2 m)

The proposed expanded McQuesten project is within the traditional territory of the First Nation of Na-Cho Nyak Dun (FNNND), outside First Nation Settlement Lands (see map below), but in a region that has not gone through strategic regional land-use planning under the Umbrella Final Agreement.



Map of the proposed expanded McQuesten project. Taken from <https://yesabregistry.ca/pr/2021-0017>

Without regional land use planning¹, the Yukon mineral development strategy² recommends that best-efforts take place to specify and protect high-value environmental, social and cultural attributes, identified by First Nation governments, and; the cumulative area of the preliminary parcel-specific staking moratoriums should not exceed 20% of a regional planning area. Numerous high-value environmental, social, and cultural values have not been identified or mapped within the expanded footprint of this project. In particular, the region lacks a wetland inventory and the original application failed to consider the potential impacts of access to wetlands and wetland values, excluding a small number of wetlands identified by Yukon Environment for their potential to support rare species.

The Yukon Government Wetland Draft Policy has two major tools for the protection and management of wetlands in Yukon: designation and protection of Wetlands of Special Importance

¹ Prior to granting a license or permit, a regional land use plan should be completed to ensure: i) ecological, social, and cultural values are identified and mapped, and targets and areas for protection are agreed upon; ii) cumulative effects of previous development activities are known and new development projects do not exceed ecological thresholds; and iii) critical sites for carbon sequestration (such as peatlands), climate refugia (such as groundwater-fed wetlands), and climate corridors (such as wetland networks, which allow species to move to cooler areas and adapt to rising temperatures) are identified and protected.

² Yukon Mineral Development Strategy and Recommendations: Accessed at yukonmnds.com/

and management of wetlands using a mitigation hierarchy (it also recognizes the role of regional planning and designation of protected areas in wetland protection in Yukon). Both require a wetland inventory at the level of 5 classes (fens, bogs, swamps, marsh, shallow open water), as prescribed in the draft Policy. However, the policy has not been finalized and adopted, and therefore there is no mitigation hierarchy for wetlands and no opportunity for FNNND, or other government or organization, to nominate Wetlands of Special Importance prior to new development. We **request that Banyan Gold Corp incorporate wetland mapping at the level of 5 classes as part of their access management plan.**

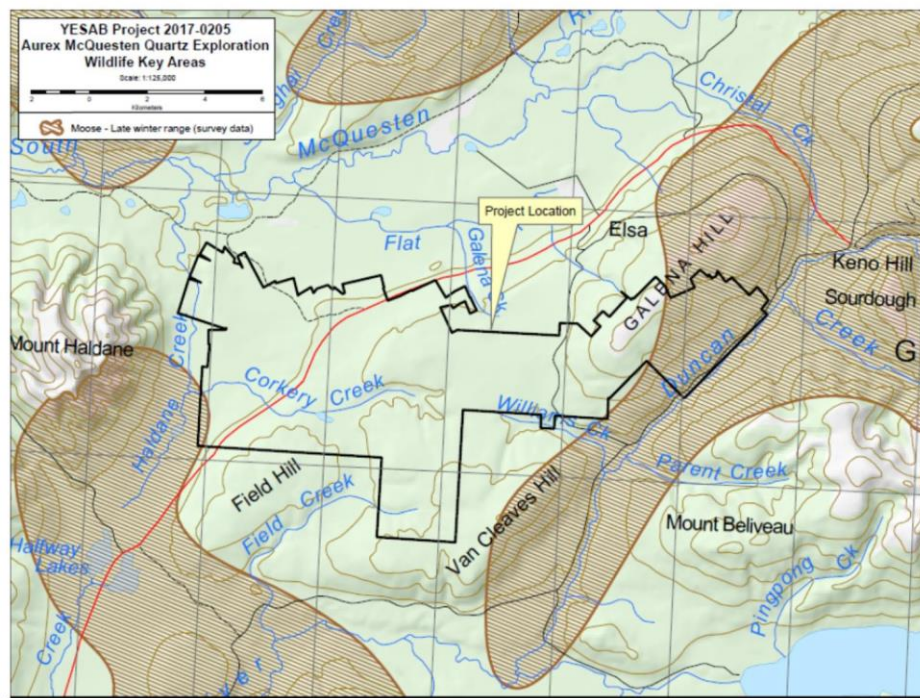
The lack of a public access management plan is also concerning, considering the proposed addition of up to 315 km of linear access and a total disturbance footprint (including linear access and new clearings) of 784 km². For the project to be assessed sufficiently, an access management plan should be made public, including a heat map of all the existing and proposed roads, trails and clearings that overlay other values, such as wetlands to aid in identifying which wetlands should be buffered and/or be designated no-go zones.

Effect thresholds³ have not been identified in this area as part of a Northern Tutchone regional plan or another cumulative effects management framework and so the project underestimates the total threat from cumulative anthropogenic footprint and activity. Two mines are already operating in this drainage: Keno Hill Silver District operated by Alexco Resource Corp, and the Eagle Gold Project operated by Victoria Gold. Our concern, based on our scientific expertise, is that the region may have surpassed negative ecological thresholds that pose significant threats to the cultural, social, and traditional values of the FNNND and other Yukoners.

In the original application, YESAB determined that the Project would have significant adverse effects on moose populations in the region. At the time, it was determined that harvest pressure in the Mayo Moose Management Unit was high, and that the increased access and lack of a clear plan for progressive reclamation of roads and trails would provide significant opportunities for increase in moose harvest by both hunters and predators. The permit required development of an Access Management and Reclamation Plan, which has not been made public. In addition, it was determined that the increased presence of humans is likely to have significant adverse effects to moose from disturbance, and potentially through habitat alteration, fragmentation or loss, particularly during the critical winter period. Although not addressed in the proposed project amendment, it is clear that the expansion of mineral exploration will substantively increase overlap with late-winter habitat for moose, as mapped by Yukon Environment (Figure 9 in YOR 2017-0205-023-1 – see below). Thus,

³ Thresholds are defined by a level of impacts or concerns due to a combination of stressors that ultimately trigger a management action. Thresholds are informed by a combination of technical understanding and a socially defined level of acceptable change. A tiered threshold approach can often be used which includes “cautionary” and “critical” levels to prevent a certain result or condition to occur.

despite a commitment by the proponent to avoid wildlife disturbance, increased human activity will further displace moose from key wintering areas.



Late-winter Moose Wildlife Key Areas in YOR 2017-0205-023-1

Due to concerns about impacts of increasing access and resource development in central Yukon, and cumulative effects of anthropogenic disturbance and climate change, WCS Canada is undertaking new research in the region. We are researching the combined effects of placer mining and permafrost erosion on water quality and fish habitat in central Yukon, as well as the cumulative effects of resource development and climate change on breeding bird populations. We are also partnering with Yukon Environment and FNNND on a two-year study using remote cameras to understand how grizzly bears and other large mammals use this landscape near Mayo, including the McQuesten area, and how they are potentially affected by existing roads and mining. As these projects are in the first year of data collection, we do not currently have results to inform planning and management in this region. However, local knowledge accounts of the region, talk about historical records of pristine Grizzly bear country, abundant moose populations and other wildlife corridors near McQuesten River, as well as a good spot for Whitefish and Grayling (pers. comm., 2019). Based on current

records of moose populations in the area⁴, that is clearly still not the case. Since 2006, there has been a declining trend in moose numbers in the Mayo area.

We have grave concern that this new project will disrupt key wintering moose habitat and cumulatively result in irreversible adverse effects on the population trend of moose as well as other large mammals. We request the access management plan be made public to determine the efficacy of the Plan with respect to reducing impacts to moose and following implementation of a Regional Land Use Plan, any proposal for new and/or amended project should include a full assessment of the potential cumulative effects of increased access, loss of winter habitat, and disturbance of moose during winter be completed.

Conclusion and Recommendations

Overall, there is a need to have Banyan's access management plan made public so that the public can adequately weigh into such a significant new development and whether proposed mitigation measures are sufficient to reduce risk to wildlife and their habitat, particularly to wetlands and a declining moose population. However, given the current state of moose in the area; the cultural importance of moose; the high uncertainty around cumulative effects; the Project is likely to have significant adverse effects.

We therefore recommend that all new development in this area is suspended until the effects can be carefully assessed as part of a Regional Land Use Plan under Chapter 11 of the Umbrella Final Agreement.

Thank you for your consideration of our comments.

Sincerely,



Dr. Chrystal Mantyka-Pringle

Conservation Planning Biologist



Dr. Hilary Cooke

Associate Conservation Scientist

⁴ O'DONOGHUE, M., S. CZETWERTYNSKI, J. BELLMORE, AND S. WESTOVER. 2018. MOOSE SURVEY: MAYO MOOSE MANAGEMENT UNIT, EARLY WINTER 2017. YUKON FISH AND WILDLIFE BRANCH REPORT SR-18-XX, WHITEHORSE, YUKON, CANADA.