



Information Request 39

Information Request 39

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Responses to Information Request 39

Response to Information Request 39a

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IR 39 – Bat Baseline Program

References:

EIS Guidelines, Section 2.7.2.8
2009 EIS, Sections 6.1.3.1, 6.2.2.2, and 6.2.3.4

Related Comments:

CEAR # 292 (Environment Canada)

Rationale:

In Section 2.7.2.8 (p. 52), the EIS Guidelines require the Proponent to “address wildlife issues for the areas potentially affected by the Project and will include, but not be limited to: bats...”. In addition, the Guidelines state that the Proponent should pay particular attention to species at risk and their habitats.

In the 2009 EIS (Section 6.1.3.1, p. 6-20), the Proponent indicates that wildlife habitat features are considered in the assessment. The list of features includes bat hibernacula. The Proponent also states in Section 6.2.2.2 that bat surveys were completed in 2006, that no bats were captured in the mine site LSA and that eight species were confirmed in the transmission line LSA. It was noted that of the detected bats, only the fringed myotis is considered a conservation concern.

Environment Canada stated that other listed species of bat have been recorded in the Project area. These species include species listed as endangered (little brown bat and northern myotis) and species of special concern (Keens long-eared bat, spotted bat, and fringed bat). It was noted that although a bat survey was conducted, it is not clear that the bat baseline program included an assessment for hibernacula within the mine site LSA.

Information Requested:

With regards to the bat baseline program, the Panel requests that Taseko:

- a. Provide a map showing mist net and anabat survey locations.
- b. Confirm the provisions used to assess the presence of hibernacula.

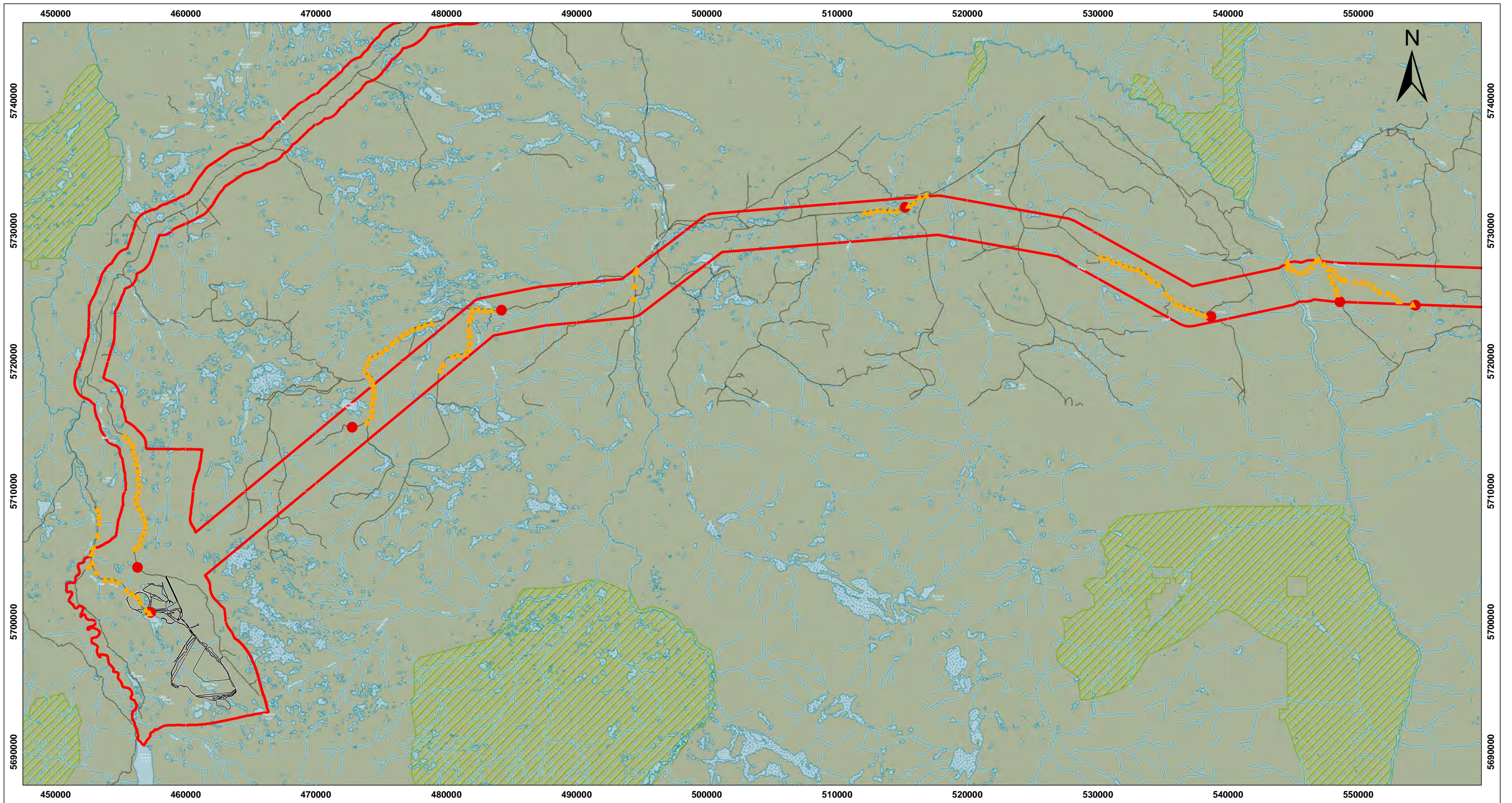
Information Request #39a

With regards to the bat baseline program, the Panel requests that Taseko:

Provide a map showing mist net and anabat survey locations.

Response Summary

Figure 39A-1 shows the locations of bat surveys conducted in July, 2006.



LEGEND:

Mist Net	Gravel Road	River / Stream
Acoustic monitoring (Anabat Detector)	Paved Road	Lake / Major River
RSA	Wetland	

Kilometers

Datum: NAD 83 Zone 10 Drawn By: Tony Dinneen Verified By: Colleen Bryden Data Sources: Taseko Mines Limited, Stantec, Province of British Columbia
Path: U:\123210163\gis\figures\IRs\MXD\123210163_39-1_Bat_Survey.mxd

TASEKO MINES LIMITED	
NEW PROSPERITY GOLD-COPPER PROJECT	
Bat field Survey July 19-27, 2006 (Volume 5, Appendix 5-6-B Technical Data Report)	
22nd February 2013	
FIGURE 39A-1	REV XXX

Information Request #39b

Confirm the provisions for assessing the presence of hibernacula.

Response Summary

No hibernacula surveys were conducted as part of baseline data collection; however, as per BCEAO Certificate commitments made by Taseko, presence of sensitive wildlife features, such as hibernacula, will be identified prior to construction to ensure appropriate mitigative measures are implemented to avoid adverse effects. Any identified hibernacula along the transmission line will be identified during the final alignment and can be avoided through pole placement.

Discussion

There were no hibernacula surveys conducted as part of the bat baseline data collection programs in 1997 and 2006.

Hibernacula provide the stable microclimatic conditions bats require during their period of winter torpor. Generally, known bat hibernacula account for a very small proportion of the total bat population (Olson et al. 2011) and few hibernacula have been documented in British Columbia (Nagorsen et al. 1993). Bat hibernacula are typically located in deep rock crevices that penetrate below the frost line, as well as in caves, abandoned mine shafts, and buildings. Ten of the 12 bat species that have distributions that overlap with the mine site LSA use winter hibernacula. The remaining two, the silver-haired bat and the hoary bat, migrate to winter roosts in the southern U.S. and Mexico (Fleming and Eby 2003).

Consistent with commitments made by Taseko in the BCECO Certificate to:

14.1 Employ BMP throughout all Project phases and activities. In particular, prior to construction commencing, undertake all appropriate measures to ensure that sensitive habitat features and wildlife values are identified and all appropriate mitigative measures are implemented to avoid adverse effects.

14.4 Identify and quantify Project effects on wildlife and vegetation at a local level on a scale that would enable the identification of appropriate mitigation/compensation measures.

Pre-construction surveys to identify sensitive habitat features such as bat hibernacula will be conducted in the mine site LSA. Surveys of potential areas would be conducted in late autumn (between mid-September and mid-October) to identify any active bat hibernacula following timing and protocols as suggested by Lausen et al. (2006) and Neubaum (2006). These surveys will target topographic or man-made features with the potential to be used as hibernacula (e.g., caves, rock outcrops). These features will be observed (visually and with bat detectors) around dusk to determine if any bats emerge and, if they do, an emergent count protocol will be used to

determine how many bats are using the site (RIC 1998). An inside count is not proposed as this disturbs the roosting bats and may lead to abandonment (RIC 1998), and is also a concern with respect to the spread of white-nose syndrome.

If pre-construction surveys confirm the presence of an active bat hibernaculum, construction activity will be avoided within a 1 km buffer zone around the hibernaculum during the hibernation period as suggested by Lausen et al. (2010). The 'hibernation period' will be identified in consultation with Region 5 staff. In preparation for these surveys, Taseko will request information from the Province on the location of any known hibernacula in or around the mine site LSA.

In the event that construction activities are unable to avoid impacts to an identified hibernaculum, at the end of the hibernation period and once all bats have vacated the hibernaculum, the entrance to the hibernaculum would be blocked off to prevent bats from returning. This would prevent impacts to the population.

Any identified hibernacula along the transmission line will be identified during the final alignment and can be mitigated through avoidance.

References

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Pre-siting and pre-construction survey protocols, 2010 Update. In: Vohnhof, M. 2002. *Handbook of Inventory Methods and Standard Protocols for Surveying Bats in Alberta*, University of Calgary. Alberta Sustainable Resource Development, Fish and Wildlife Division, Edmonton, Alberta. Revised 2008. Available: <http://srd.alberta.ca/FishWildlife/WildlifeManagement/documents/BatsAndWindTurbines-SurveyProtocols-May-2010.pdf> Accessed 30 January 2013.

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Neubaum, D.J., T.J. O’Shea, and K.R. Wilson. 2006. Autumn migration and selection of rock crevices as hibernacula by big brown bats in Colorado. *Journal of Mammalogy* 87:470-479. Available: http://www.vivo.colostate.edu/bats/pubs/neubaum_hibernacula.pdf Accessed 30 January 2013.

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