Information Request 47

Responses to Information Request 47

IR 47 – Traditional Use

References:

EIS Guidelines, Section 2.7.5
EIS, Section 2.8
EIS, Table 2.7.5-1 (Effects Tracking Table and Aboriginal Issues of Concern)

Related Comments:

CEAR # 264 (Ehrhart-English)
CEAR # 289 (Roger William)
CEAR # 290 (Tsilhqot'in National Government)

Rationale:

The EIS Guidelines (p. 59) states that "the Proponent shall provide an assessment of the potential environmental effects on the current use of lands and resources for traditional purposes by Aboriginal persons, and associated impacts to potential or established Aboriginal rights or title and, where appropriate, other issues of concern to Aboriginal groups." The EIS Guidelines (p. 60) also require that the Proponent identify "measures to avoid, mitigate, or accommodate effects on the current use of lands and resources for traditional purposes by Aboriginal peoples".

The Tsilhqot'in National Government, Roger William, Cindy Ehrhart-English, and others emphasize that traditional uses in the maximum disturbance area have been practiced extensively in the past and continue at present.

The EIS (p.1291) states that "use of the area for recreation, teachings and gatherings will be modified with New Prosperity in light of adjacent mine operation activities and local effects on noise and aesthetic values." The EIS (p.1465) also states that "trapping opportunities for beaver, muskrat, and river otter will be lost from the wetland areas under the TSF, which will not be reclaimed to suitable wetland and marsh habitats for these species… there will also be no capability for fishing in the Pit Lake predicted at this time." The mitigation measures provided in the EIS (Table 2.7.5-1, p. 1263) include that "Taseko remains open to discussing further mitigation measures that may resolve outstanding issues for Aboriginal people, such as: building new or improving existing access to harvesting and hunting areas within the territory to compensate for the loss of opportunity in the Fish Lake watershed during mining."

Information Requested:

The Panel requests that Taseko:

a. Provide additional information on the effects of noise, light, and dust from all sources on the current use of lands and resources for traditional purposes by Aboriginal peoples near Fish Lake.

b. Provide support or example(s) of the proposed mitigation measures being effective.

Information Request #47a

The Panel requests that Taseko:

Provide additional information on the effects of noise, light, and dust from all sources on the current use of lands and resources for traditional purposes by Aboriginal peoples near Fish Lake.

Response Summary

Individuals who choose to use the Fish Lake site would experience minor impacts due to changes to operational noise, primarily during the day; and impacts to camping experiences due to light.

Discussion

Noise

During the construction phase of the project, construction noise would be limited to daylight hours. During this phase, noise levels are expected to be slightly higher than during operations due to elevated use of equipment and construction activities.

During operations the Fish Lake area will be in proximity to haul roads and mine infrastructure and operational noise would be heard by individuals using the site. However, noise associated with processing activities would be minimized by mitigation measures such as enclosing conveyors and the mill facilities. Haul trucks may pass by infrequently and would be travelling at a slow speed. As the mine would be a 24 hour operation, noise would be present during both day and night; however higher noise levels would be expected during the day due to higher occurrences of equipment use and traffic, as well as blasts.

Hunting activities in the vicinity of the mine site may be impacted by site noise. For example blast noise may temporarily disturb local wildlife and therefore hunting opportunities.

During the closure phase, noise associated with the operation would be restricted primarily to daylight hours and is expected to be less than noise experienced during the operational phase.

During all phases of the operation, the highest noise levels are expected at the northern end of Fish Lake. The newly located recreation area would be located close to the southern end of the lake, farther from the operation. Individuals who choose to recreate near the northern end of the lake would expect to experience higher noise levels than those individuals who choose to use areas on the southern side of the lake. In general, most site users would not be using the area in which the highest noise levels are expected and sound levels would decrease with distance from the mine site.

Noise associated with blasting activities is more unwelcome if the noise and vibration effects (air and ground) arrive suddenly without any expectation. To minimize impacts, advance notice of

blast events will be provided to individuals using the Fish Lake Area when they are escorted through the mine site.

As industrial noise is foreign to the area, the atmosphere in the area immediately surrounding the mine would be altered for users accustomed to the relative quiet and exclusively natural sounds (wind noise, vegetation rustling, bird calls etc.) that existed at the site prior to development. However, it is not anticipated that operational noise would be excessively loud such that use of the Fish Lake area could not continue.

Light

Individuals who choose to use the site at night may be able to see lights from the mine site depending on where they choose to locate their camp site. Light from haul roads, the mill complex and office buildings may have an impact on the camping experience and may interfere with views of the night sky. Light impacts would be primarily associated with the operational phase.

Dust

Through the implementation of standard mining practices including revegetation of exposed areas subject to wind erosion; watering of haul roads; covering of conveyors and transfer points leading to the mill; and dust collection systems in the primary and secondary crushers, dust will not limit the use of the Fish Lake area for recreational or traditional use purposes.

Information Request #47b

The Panel requests that Taseko:

Provide support or example(s) of the proposed mitigation measures being effective.

Response Summary

Mitigation measures proposed in the EIS submission have been successfully implemented at mines throughout BC.

Discussion

Mitigation of Noise

Mitigation measures for noise are presented in Section 2.7.2.3 and in the Construction Management Plan, and Air and Noise Management Plan presented 2.8.1 of 2012 EIS Application.

Noise mitigation measures during the construction and closure phases of the Project include:

- scheduling construction activities during daytime hours where practical;
- maintaining equipment and providing effective mufflers on construction equipment; and,
- turning equipment off when not in use where practical.

These types of mitigation measures have been successfully employed during major construction projects throughout BC such as highways projects, housing developments and mine construction projects including the recent mill upgrade at the Gibraltar Mine.

Noise mitigation measures to be employed during the operational phase include:

- housing noise generating equipment inside buildings with metal cladding for improved noise suppression;
- enclosing conveyors;
- installation of mufflers on mining equipment;
- enforcement of speed limits; and,
- maintaining roads to minimize vehicle noise associated with vibration.

Measures such as these are commonly implemented at mines throughout BC including at the Gibraltar Mine and Highland Valley Copper.

Mitigation of Light

Mitigation measures to address effects from artificial lighting will be considered during the permitting stage of the Project and measures deemed to be effective will be incorporated into the design of the facilities. Mitigation measures could potentially include:

- use of the smallest necessary light sources;
- use of LED's;
- adaptive lighting controls to dim or extinguish lights when not needed; and,
- aiming and shielding of lights to prevent up light.

Mitigation measures such as these have been proposed as part of the Rosemont Copper Project in Arizona to mitigate light pollution which may contribute to impacts to local observatories.

Mitigation of Dust

Mitigation measures to control dust are proposed in Sections 2.7.2.2 and 2.8.1 of 2012 EIS Application. Mitigation measures that may be used through construction and operations to reduce fugitive dust levels may include:

- revegetation or covering of exposed areas subject to wind erosion;
- use of large haul trucks for ore and waste transport to minimize the number of trips required between the source and destination;
- installation of dust extraction and ventilation filtration systems within the plant complex;
- installation of dust collection systems at the primary and secondary crushers;
- installation of covered conveyor belt ore transport systems;
- regular application of surface-binding chemicals or water on roads and exposed surfaces during dry weather;
- upgrading the road-surfacing materials by adding a gravel base;
- vehicle speed regulations to minimize dust; and,
- covering of trucks used to transport concentrate.

In order to evaluate the effect of dust suppression measures, Taseko will implement a dust monitoring program to monitor dustfall at the site.

Dust suppression is a requirement of the Mines Act and Ministry of Environment emissions permits. Standard measures such as those indicated above are effective, based on mine examples such as Gibraltar, and Highland Valley Copper.

Examples of Recreational Sites in Close Proximity to Mines

Several examples exist of recreational sites which are located in close proximity to active mines. Two local examples are the Mt. Polley and Highland Valley Copper mines.

1. Highland Valley Copper

Numerous recreational sites are located proximal to the Highland Valley Copper Mine including the Bose Lake (Logan Lake) campground which is located approximately 500 m east of the Bethlehem Tailings Storage Facility (TSF). Five campsites are available at the site where recreational activities including boating, fishing and snowmobiling are available. The campground is located directly across the lake from the mine site. Site facilities include picnic tables, toilets and a boat launch.

2. Mt. Polley Mine

The Polley Lake campground is located southeast of the Mt. Polley Mine, approximately 1.7 km from the active TSF and 2.8 km from the active mining area. Six campsites are available where recreational activities including boating and fishing are available. The campground is located directly across the lake from the operation and waste rock dumps are visible from the site. Site facilities include picnic tables, toilets and a boat launch.

The Bootjack Lake Campground is located west of the Mt. Polley Mine, approximately 1.4 km from the active mining area and 6 km from the active TSF. Nine campsites are available at the two wheel drive accessible site where recreational activities including boating and fishing are available. Site facilities include picnic tables, toilets and a boat launch. The Ministry of Forest Lands and Natural Resource Operations *Recreation Sites and Trails BC* site lists this site as busy, implying heavy and consistent use of the site.

In spite of the relatively close proximity to the Mt. Polley Mine and audible mine noise, the Bootjack recreational site is regularly used. No known dust issues have been identified at either of the two recreational sites. Access to the Bootjack recreational site is cleared by Mt. Polley during the winter months, allowing winter use of the site for activities such as ice fishing. Use of the Polley Lake site is more limited, in part due to the condition of road access.

The New Fish Lake recreational site would be located approximately 1.4 km southeast of the open pit, 0.8 km west of the plant site, and 2.9 km northwest of the TSF. The new Fish Lake recreation site would be located within a similar distance from the mine site in comparison to other sites in close proximity to active mines. Through the implementation of mitigation

measures such as those listed above, it is anticipated that use of the Fish Lake area for recreational and traditional use purposes may continue with little impact due to dust, light and noise.

References

Ministry of Forests Lands and Natural Resource Operations. *Recreation Sites and Trails BC.* Available: http://www.sitesandtrailsbc.ca/default.aspx. Accessed February 12, 2013.