

REPORT OF THE FEDERAL REVIEW PANEL
NEW PROSPERITY GOLD-COPPER MINE PROJECT

October 31, 2013

EXECUTIVE SUMMARY

Taseko Mines Limited (Taseko) has proposed the development of the New Prosperity Gold-Copper Mine Project (the Project), 125 km southwest of Williams Lake, British Columbia. The Project would entail constructing, operating, and closing a large open pit mine, which would be built over two years and would operate for 20 years. The Project would include an open pit, concentrator facility, support infrastructure, and associated tailings and waste rock storage areas, and the construction of a 2.8-km access road to the mine site. The Project would also include a 125-km power line, and the transport of mine concentrates to an existing concentrate load-out facility near Macalister, British Columbia.

This report presents the results of the federal Review Panel's (the Panel) assessment of the potential environmental effects of the proposed Project. This report has been completed in accordance with the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) and the Panel's Terms of Reference issued by the Minister of the Environment (the Minister). This report addresses the factors identified in the Panel's Terms of Reference and sets out the rationale, conclusions and recommendations of the Panel, including proposed mitigation measures and follow-up programs.

Taseko had submitted a previous project, known as the Prosperity Gold-Copper Mine project (original Prosperity project) which was subject to an environmental assessment under *British Columbia's Environmental Assessment Act* and a federal review panel under the former *Canadian Environmental Assessment Act*. In January 2010, the Government of British Columbia issued an environmental assessment certificate for the original Prosperity project concluding there would be significant adverse environmental effects on fish and fish habitat but that those significant effects were justifiable in the circumstances.

In July 2010, the previous panel concluded that the project as proposed would result in significant adverse environmental effects. In November 2010, the Government of Canada accepted the previous panel conclusions and determined that the significant adverse environmental effects could not be justified under the circumstances. The Government of Canada indicated that its decision did not preclude the proponent from submitting a project proposal that addressed the factors considered by the panel.

Following the Government of Canada decision, Taseko revised its mine proposal to address the factors identified by the previous panel and submitted the New Prosperity Gold-Copper Mine Project for review. The most important change implemented by Taseko in its new proposal was the preservation of Fish Lake (Teztan Biny) and portions of its tributaries. This outcome would be achieved primarily by relocating the tailings storage facility 2.5 km upstream of the lake and by introducing a lake recirculation water management scheme. Taseko stated that the redesign would enable future generations to use these waters for navigation, fishing and recreational activities and would also mitigate the effects on the cultural heritage and on the current use of the lands and resources by Aboriginal peoples. The area disturbed by the new mine

development plan would also be reduced by 23% compared to the original proposal. Taseko has also proposed to implement additional measures to assist in the protection of the region's grizzly bear population.

Taseko focused its assessment on those aspects of the Project that had changed or were new from the previous project proposal. There were no changes in the Project design for the transmission line, the existing rail load-out facility or the road access.

The mine site would cover an area of approximately 27 km² in the Fish Creek (Teztan Yeqox) watershed. The watershed, which drains into the Taseko River (Dasiqox), consists of Fish Lake (Teztan Biny), Little Fish Lake (Y'anah Biny) and the surrounding area called Nabas. The area was characterized as a recreational area as well as an area used by Aboriginal peoples for many traditional activities and cultural practices. The mine site would involve the permanent loss of Little Fish Lake and its surrounding area from the placement of a 12 km² tailings storage facility, which consists of 7.8 km of earth-rock filled dams up to 115 m high. To make up for the reduction in tributary flow to Fish Lake and to ensure Fish Lake is preserved as a viable ecosystem, Taseko proposed to recirculate Fish Lake water during operations and into closure, until the tailings storage facility lake water is of suitable quality to be released to Fish Lake. The development redesign for New Prosperity would increase the capital cost by \$300 million to an estimated total of \$1.0 billion dollars. Taseko submitted a fish and fish habitat compensation plan to compensate for the loss of fish habitat in Upper Fish Creek and Little Fish Lake and the temporary reduction in water flows to Lower Fish Creek.

The Project would be located in the Cariboo-Chilcotin Regional district, a sparsely populated, rural region with Williams Lake as the regional service centre. The economy within the local study area was reported to be heavily dependent on forestry and mining. According to Taseko, the Project would be expected to create 550 direct jobs and 1280 indirect over its expected 20 years of operation. Taseko estimated that annual government revenues would be \$26.2 million during construction and \$48.4 million during operations and would continue for the life of mine operations, exceeding 1 billion dollars.

The Aboriginal groups that would be affected by the Project are the Tsilhqot'in and Secwepemc Nations. The Tsilhqot'in traditional territory includes the mine site area, located in the Fish Lake (Teztan Biny) and Nabas areas, as well as the western portion of the transmission line corridor. The Secwepemc traditional territory includes the eastern portion of the transmission line corridor as well as the mine site. The Aboriginal groups have maintained strong opposition to the Project.

The Project is subject to review under the *Canadian Environmental Assessment Act, 2012* and would likely require Fisheries and Oceans Canada, Transport Canada and Natural Resources Canada to issue permits, approvals, authorizations and/or licences pursuant to the *Fisheries Act*, the *Navigable Waters Protection Act* and the *Explosives Act* respectively. In addition, given Taseko had identified the need to use Little Fish Lake (Y'anah Biny) and Upper Fish Creek (Teztan Yeqox) for the disposal of mine waste, including tailings and waste rock, as well as the management of process water, the *Metal Mining Effluent Regulations* would need to be amended to include these water bodies to Schedule 2 and to designate them as tailings storage, if the Project receives the required approvals.

The federal Minister of the Environment appointed the three-member Panel under the former *Canadian Environmental Assessment Act* on May 9, 2012, and the Panel was continued under the new *Canadian Environmental Assessment Act, 2012*. The Panel consists of Dr. Bill Ross

(chair), Dr. George Kupfer and Dr. Ron Smyth. The Panel Terms of Reference require the Panel to conduct an assessment of the environmental effects of the Project and to determine the significance of these effects. The Panel was also instructed to accept and review information from Aboriginal groups on how the Project might affect potential or established Aboriginal rights or title within the Project area and to include this information in its report.

During the environmental impact statement (EIS) review, federal and provincial government departments and agencies participating in the review provided views and expertise on the adequacy and technical merit of the EIS and additional information submitted by Taseko as measured against the EIS Guidelines. The federal departments participated throughout the public hearing, both with written submissions and with presentations by the subject matter experts at the hearing. The provincial government agencies chose to participate by providing written submissions and written responses to questions raised during the hearing. The Panel commends the significant contribution both governments, experts, participants, Aboriginal groups and Taseko made throughout the environmental assessment of the Project.

Taseko submitted its environmental impact statement to the Panel on September 27, 2012 and on June 20, 2013 the Panel determined that the EIS, supplemented by the additional information provided by Taseko, contained sufficient information to proceed to the public hearing. The hearing took place from July 22 to August 23, 2013 in the communities most affected by the Project: Williams Lake, six Tsilhqot'in and two Secwepemc communities. The hearing provided an opportunity for registered interested parties and the public to present their overall views on the Project and its potential environmental effects and for Taseko to present its assessment of the Project and to answer questions from participants. As part of the community hearing sessions the Panel also held two site visits: 1) a site visit near Taseko River (Dasiqox) and at Fish Lake (Teztan Biny), and 2) a site visit at Little Dog, where the proposed transmission line would cross the Fraser River.

The public hearing sessions were well attended, and the Panel was able to hear from most of the participants wanting to present to the Panel. In total, approximately 300 individuals or groups made presentations to the Panel during the various hearing sessions.

This report presents the Panel's conclusions and recommendations and takes into account information obtained during the course of the New Prosperity Project review as well as information generated as part of the previous review in accordance with the Panel's mandate. The list of Panel conclusions and recommendations are presented in Chapter 17. The Panel's key conclusions are summarized below. The Panel makes no suggestion as to whether the Project should proceed; that decision will be made by the governments of Canada and British Columbia.

The Panel concludes that the New Prosperity Project would result in several significant adverse environmental effects; the key ones being effects on water quality in Fish Lake (Teztan Biny), on fish and fish habitat in Fish Lake, on current use of lands and resources for traditional purposes by certain Aboriginal groups, and on their cultural heritage. The Panel also concludes there would be a significant adverse cumulative effect on the South Chilcotin grizzly bear population, unless necessary cumulative effects mitigation measures are effectively implemented.

The reasons for these conclusions are summarized as follows:

Water Quality

The Panel has determined, based on strong evidence submitted by government agencies (both Canada and British Columbia) and other participants, that Taseko underestimated the volume of tailings pore water seepage leaving the tailings storage facility and the impacts on water quality caused by recirculation of water within the Fish Lake (Teztan Biny) and Upper Fish Creek (Teztan Yeqox) system. The Panel has also determined considerable uncertainty remains regarding Taseko's contingency plan for water treatment. Again, this conclusion was based on strong evidence submitted by governments and other participants. The Panel has determined that the proposed target water quality objectives for Fish Lake are not likely achievable and, even with expensive water treatment measures, the protection of Fish Lake water quality is unlikely to succeed in the long term.

Although the seepage mitigation measures proposed by Taseko have the potential to substantially reduce the volume of seepage, the Panel concludes it would not eliminate seepage from entering Fish Lake (Teztan Biny). The Panel concludes the concentration of contaminants of concern in Fish Lake would be considerably larger than Taseko's predictions and that eutrophication of Fish Lake would be a significant problem that is unlikely to be mitigable in the long term.

Fish and Fish Habitat

The likely significant adverse effects on water quality in Fish Lake and the expected eutrophication of Fish Lake would therefore result in a significant adverse effect on fish and fish habitat in Fish Lake.

Aboriginal Matters

The Tsilhqot'in and Secwepemc currently use the mine site area and the transmission line corridor for traditional purposes and for carrying out of ceremonial and spiritual practices. Fish Lake (Teztan Biny) and Nabas areas are places of unique and special significance for Tsilhqot'in cultural identity and heritage and they have occupied Nabas and used Fish Lake for generations. The Panel heard the Tsilhqot'in concerns about likely burial and cremation sites in the Project area, notably around Little Fish Lake (Y'anah Biny), that were not completely identified in archaeological studies for the previous project. This area would be buried under the tailing storage facility.

Taseko committed to maintain access to Fish Lake for Aboriginal peoples to continue practicing their activities. However, the Tsilhqot'in stated that if the Project proceeds, they would avoid going to Fish Lake because of the disturbance resulting from the presence of a mine, their fears of contamination, and the loss of the spiritual and cultural connections they have with a very special cultural place.

In the Panel's view, the loss of Nabas and the changes to the environment caused by the mine components would reduce the area where the Tsilhqot'in can practice their traditional harvesting activities, disturb burial and cremation sites that are of great importance to them and endanger their ability to sustain their way of life and cultural identity. The Panel has determined that the Project would have adverse effects on the

Tsilhqot'in current use of lands and resources for traditional purposes, archaeological and historical sites, and cultural heritage and that these adverse effects could not be mitigated and therefore would be significant.

The Secwepemc stated that the transmission line corridor as proposed would go through their traditional territory, their most important hunting grounds, over important fishing and plant gathering areas, but also through sacred areas notably where the transmission line would cross the Fraser River, which could not be avoided by moving the centreline within the proposed corridor. The Panel recognizes that the proposed transmission line corridor crosses areas of high archaeological potential and significance.

The Secwepemc explained that it is important for their history, culture and identity that they practice their traditional activities and cultural ceremonies and rituals in sacred areas where they have connections with their ancestors. The Panel finds that the presence of the transmission line would constitute an interference with the spiritual nature of the area that would disturb cultural and spiritual activities, and therefore would compromise the Secwepemc cultural heritage.

The Panel recommends that, if the Project proceeds, Taseko be required to consider other feasible alternative routes for the transmission line crossing at the Fraser River, to avoid these areas of cultural significance to the Secwepemc.

If the proposed transmission line crossing at the Fraser River is the only feasible option, the Panel's conclusions on the effects on the Secwepemc current use of land and resources for traditional purposes, cultural heritage, archaeological and historical sites are as follows: one Panel member determines that the proposed Project would result in significant adverse effects; two Panel members determine that, after taking into account the context and temporary nature of the transmission line, these effects would be acceptable and therefore not significant.

Potential or established Aboriginal rights and title

The Tsilhqot'in have proven and asserted Aboriginal rights throughout the mine site area, as well as asserted Aboriginal title. The Esk'etemc and the Stswecem'c Xgat'tem have asserted Aboriginal rights throughout the transmission line corridor and asserted Aboriginal title. The Panel determines that the Project would adversely affect established and asserted rights and title for the Tsilhqot'in and Secwepemc Nations.

Cumulative effect on South Chilcotin Grizzly Bear Population Unit

The South Chilcotin grizzly bear population has been determined by the province of British Columbia to be threatened. The Panel took this determination to be an indication that the population has undergone significant adverse effects in the past and therefore there is an existing (before any effects of the proposed New Prosperity Project) significant adverse cumulative effect on grizzly bears.

According to Taseko, without additional mitigation measures, the Project would have an adverse effect on grizzly bears in the area. This effect would combine with the effects of previous human activities and exacerbate the existing significant adverse cumulative effect. Taseko proposed to undertake further mitigation measures to reduce the existing

cumulative effects. The Panel has determined that if the mitigation measures proposed by Taseko were effectively implemented, the South Chilcotin grizzly bear population would be in better shape after the Project than before the Project; however effectively implementing these measures could be challenging.

The Panel believes that the most challenging task would be to effectively control access on existing roads and trails in the region to restore secure grizzly bear core habitat. The Panel concludes that there is a need to control enough access so that, in combination with the other mitigation measures proposed by Taseko, the Project effects are offset and that the access control measures alleviate some of the cumulative effect.