

## 2 – CONTENTS OF THE ENVIRONMENTAL IMPACT STATEMENT

### 2.1 INTRODUCTION AND BACKGROUND

Taseko Mines Limited (“Taseko”) of British Columbia proposes to develop the New Prosperity Gold-Copper Project, “The Project”. The Project mine site is approximately 125 km southwest of Williams Lake on the Fraser Plateau in south central British Columbia. The Project deposit is located within the Fish Creek watershed.

Development of the mine site would occur on a 35 km<sup>2</sup> parcel of Provincial Crown land currently held by Taseko in the form of a lease (#787863) and 37 mineral claims. The Project consists of an open pit mine development and a 70,000 tonne per day concentrator facility with an average annual production of 108 million pounds of copper and 247 thousand ounces of gold production over a 20 year mine life. The Project also includes support infrastructure, associated tailings and waste rock storage areas, a 125 km long power transmission line, an existing concentrate load-out facility near Macalister, British Columbia and existing access from Williams Lake with construction of 2.8 km of new mine access road at the mine site.

The Project components are within the traditional territory of the Tsilhqot’in and Northern Seqwepemc people. The Tsilhqot’in people in seven communities that are of consideration for this project include: Xeni Gwet’in (Nemiah), Yunesit’in (Stone), Tsi Del Del (Alexis Creek), Esdilagh (Alexandria), Tl’etingox-t’in (Anaham), Tl’esqox (Toosey), and Ulkatcho. The Northern Seqwepemc people in five communities are of consideration for this project and include: Xat’sull/Cmetem (Soda Creek), Stswecem’c/Xgat’tem (Canoe Creek), T’exelcemic (Williams Lake), Esketemc (Alkali), and Llenlleyen’ten (High Bar).

The purpose of the mine development is to utilize this proven mineral reserve to create value and opportunity for the people of British Columbia and Canada, and for the shareholders of Taseko. The Project is a needed component to help sustain the economic and social health of rural British Columbia communities.

A previously submitted project by Taseko, known as the Prosperity Gold-Copper Mine project was subject to an environmental assessment review under British Columbia’s Environmental Assessment Act (BCEAA) and a federal review panel under the CEAA in 2009-2010. Following that review, in January 2010 the Government of British Columbia issued an environmental assessment certificate for the previous project proposal and in July 2010 the federal panel concluded that the Prosperity Gold-Copper Mine project as proposed would result in significant adverse environmental effects.

In November 2010, in its response to the panel’s report, the Government of Canada indicated that it accepted the conclusions of the panel as presented, and determined that the significant adverse environmental effects could not be justified under the circumstances. In its response, the Government of Canada also noted that its decision did not preclude the Proponent from submitting a project proposal that addressed the factors considered by the panel.

Following the Government Response, Taseko undertook revisions to the Mine Development Plan (MDP) and mine site layout to address the factors identified by the panel and submitted a project description for the New Prosperity Gold – Copper Project (“The Project”) to the Canadian Environmental Assessment Agency (the Agency) for consideration. On August 9, 2011, the Agency accepted the project description, and on November 7, 2011, the Honourable Peter Kent, Minister of the Environment, announced that the Project would undergo a federal environmental assessment by way of an independent federal review panel (the Panel). In his referral of the Project to a federal review panel, the Minister of the Environment

instructed the CEAA to design a process that would thoroughly assess whether the proposal addresses the environmental effects identified in the environmental assessment of the original Prosperity Gold-Copper Mine Project. He also directed the Agency to ensure that information obtained during the previous environmental assessment be used to the extent possible to ensure a timely decision and that the review take no more than 12 months.

Federally, the Project is subject to review under the *Canadian Environmental Assessment Act (CEA Act)* given the potential requirement for Fisheries and Oceans Canada (DFO), Transport Canada and Natural Resources Canada to issue permits, approvals, authorizations and/or licences pursuant to the *Fisheries Act*, the *Navigable Waters Protection Act (NWPA)* and the *Explosives Act* respectively. Following completion of the federal panel review, their report is to be submitted to the Minister of the Environment. Once the Government of Canada decides whether or not to approve the project the federal Regulatory Authorities “RAs” can then proceed to exercise their federal regulatory authority.

Guidelines for the preparation of an Environmental Impact Statement “EIS” pursuant to the *Canadian Environmental Assessment Act* for the New Prosperity Gold-Copper Mine Project (the Guidelines) were issued to Taseko in March 2012. Taseko has prepared this EIS in accordance with the Guidelines. The focus of the EIS is on aspects of the Project that have changed or are new from the previous project proposal and on corresponding changes to the environmental effects previously predicted. The EIS uses relevant information, submissions, testimony, findings and conclusions generated as part of the previous 2009/10 review and from the original EIS (2009) in support of the assessment of the Project. The EIS describes changes to previously predicted environmental effects that occur as a result of the implementation of the new Mine Development Plan “MDP” and mitigation measures, describes how the Project as now proposed addresses the significant adverse environmental effects that were identified in the previous project review and documents how commitments, mitigation measures and recommendations made as part of the 2009/2010 provincial and federal review are incorporated into the Project design.

The EIS Guidelines Table of Contents was utilized as the basis for organizing and presenting the EIS. All information relevant to the Project in satisfying the Guidelines is included in the EIS.

### 2.1.1 The Proponent

Taseko Mines Limited (“Taseko”) is a Canadian mining company, focused on mining operation and development in British Columbia. Headquartered in Vancouver Canada, Taseko is the 75% owner and operator of the Gibraltar Mine, the second largest copper-molybdenum mine in Canada. In addition, to this New Prosperity Project which is the 7<sup>th</sup> largest undeveloped gold-copper deposit in the world, Taseko is currently developing the Aley Niobium Project. Taseko was incorporated in 1966 and acquired the New Prosperity Project in 1969. Taseko understands the need for a company to operate in a responsible and sustainable manner and has developed corporate governance policies, a code of ethics, an audit and risk charter, an environmental policy, and health and safety and aboriginal policies the details of which may be found on the corporate website ([www.tasekomines.com](http://www.tasekomines.com)).

Taseko is committed to Towards Sustainable Mining (TSM) standards for best practices and is on a path to reduce the operational impact at the Gibraltar Mine. Taseko has undertaken and completed energy efficient upgrades and developed guidelines for idling equipment and a new motor policy. Taseko is participating in the BC Power Smart Monitoring and Reporting and Process Control Initiative Assessment Program.

The Project is being designed and will be constructed and operated by Taseko’s management team supported by leading edge development and technical service consultants and contractors. Taseko is committed to high standards of business practice, community participation and environmental conduct in all aspects of the work it undertakes, and has a proven track record of environmental and social responsibility at the Gibraltar Mine and with the City of Williams Lake and surrounding communities.

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The preparation of the EIS for the proposed New Prosperity Gold-Copper Project has involved significant effort on the part of many contractors, leading consulting firms, specialists and supporting companies. Taseko Mines Limited wishes to acknowledge the contribution of the following organizations and individuals involved in the preparation of this EIS:

- Knight Piésold Ltd. – Surface Water Hydrology, Meteorology, Engineering and EIS
- BGC Engineering Inc. – Hydrogeology
- SRK Consulting (Canada) Inc. – ARD/ML
- Stantec Consulting Ltd. – Biophysical, Air Quality, Human Health and Ecological Risk
- Triton Environmental Consultants Ltd. – Fish and Fish Habitat, Fish Compensation and Water Quality, and
- Lions Gate Consulting Inc. – Socio-Economic.

Further detail with respect to acknowledgements is provided in Section 1.4.2.

The guidelines specifically require that the EIS provide information on the nature of the Proponent's management structure and organizational accountability for the implementation of Environmental Management Systems (EMS) and Environmental Management Plans (EMPs), mitigation and monitoring and key elements of the environmental and health and safety management systems and how the systems will be integrated into the Project. This information is discussed in Section 2.8

### 2.1.2 Legal Framework and Role of Government

The Project is subject to review under the *Canadian Environmental Assessment Act* (CEA Act) given the potential requirement for Fisheries and Oceans Canada (DFO), Transport Canada and Natural Resources Canada to issue permits, approval, authorizations and/or licences pursuant to the *Fisheries Act*, the *Navigable Waters Protection Act* (NWPA) and the *Explosives Act* respectively. On November 7, 2011, the Honourable Peter Kent, Minister of the Environment, announced that the Project would undergo a federal environmental assessment by way of a review panel. At the time of writing this EIS, the Terms of Reference for the review panel have been finalized and a panel been appointed. A Panel Secretariat has been appointed and will assist the panel with the discharge of their duties and responsibilities. The Canadian Environmental Assessment Agency (the Agency), responsible for coordinating the federal environmental assessment review process, was directed by the Minister of Environment to ensure that information obtained during the previous environmental assessment is used to the extent possible and that the review take no more than 12 months. The Project is also subject to the Major Resource Project Initiative of the federal government which provides a single window into the federal regulatory process.

#### Planning Context

The Project is located in the Cariboo-Chilcotin District, an area that contains a mix of rural agricultural lands, small acreage holdings and crown forest lands. Working directly with the people of the Cariboo-Chilcotin, the Government of British Columbia announced the Cariboo-Chilcotin Land Use Plan ("CCLUP") on October 4, 1994. The CCLUP fulfills the need for a regional plan to provide "certainty and sustainability for the range of land and resource uses and values" (Government of British Columbia, 1995). It presents the overall framework for land use, conservation and economic development in the region. The CCLUP was developed to incorporate the interests and meet the needs of the community and builds on work conducted between January 1992 and July 1994 by the Commission on Resources and Environment, which allowed people a direct say over land use plans for their region (Government of British Columbia, 1995).

The mine site is located within a CCLUP integrated resource development zone that states in part that, "the mineral and placer industries will have full access for exploration and mine development, subject to regulations of applicable statutes. Full access means that all (100%) of the land outside of protected areas is available to exploration and development, guided by the *Mineral Tenure Act* and the *Mines Act*. This respects the industries' requirement for as large a land base as possible to explore for 'hidden' resources and recognises that the more intensive activities and impacts tend to be focused on the relatively small areas found to have potential for economically viable mineral occurrences."

The CCLUP contains seven Sustainable Resource Management Plans ("SRMP") which provide spatial reference and detailed objectives needed to carry out the CCLUP, and are important elements in CCLUP implementation. In particular, the Williams Lake Sustainable Resource Management Plan (Government of British Columbia, 2005) and the Chilcotin Sustainable Resource Management Plan (Government of British Columbia, 2007) address First Nations in the Project area.

These two SRMPs are literature reviews that are not based on interviews with First Nations; however, they reviewed archaeological overview assessments and the following Traditional Land Use Studies: *A Cultural Heritage Overview of the Cariboo Forest Region* (1997) and *A Cultural Heritage Overview of the Western Half of the Williams Lake Forest District* (1996). These two land use studies were conducted on behalf of the Ministry of Forests who wanted a cultural heritage overview in order to help them assess the

potential existence of aboriginal rights in proposed management areas where the First Nations of concern have been unable or unwilling to provide requested traditional knowledge information. They extensively cover historical patterns of band membership, subsistence and settlement patterns, and cultural practices of aboriginal groups in the area.

For the environmental assessment of the previous project the provincial and federal governments, determined that there were seven communities of Tsilhqot'in (Chilcotin) people and five communities of Secwepemc (Shuswap) people requiring consultation and engagement on the Project. They are the Tsilhqot'in communities of Xeni Gwet'in (Nemiah), Yunesit'in (Stone), Tsi Del Del (Alexis Creek), ?Esdilagh (Alexandria), Tl'etinqox-t'in (Anaham) and Tl'esqox (Toosey), and the Secwepemc communities of Xat'sull/Cmetem (Soda Creek), Stswecem'c/Xgat'tem (Canoe Creek), T'exelcemc (Williams Lake), Esketemc (Alkali), and Llenlleny'ten (High Bar). The Tsilhqot'in members of Ulkatcho are also entitled to consultation, since they form part of the Tsilhqot'in Nation with Aboriginal rights that may be affected by the Project.

The proposed mine site is within the Traditional Territories of the Xeni Gwet'in (Nemiah), the Yunesit'in (Stone), and the Esketemc (Alkali). The mine site is also within the area which is described in the recent William case as the "Eastern Trapline Territory" and in which the late Mr. Justice Vickers determined that the Tsilhqot'in people have Aboriginal rights to hunt and trap birds and animals as described in that judgment.

#### Legislation and Regulations

Following the completion of a review of the environmental effects of the proposed New Prosperity Project the federal Panel will prepare a report and submit their recommendations to the Minister of the Environment and the responsible authorities. Once the Government of Canada decides whether or not to approve the Project, if the decision is to approve the Project, federal regulators can then proceed to exercise their statutory decision making authority. Federal authorities required for the New Prosperity Project (Table 2.1.2-1) include authorizations from Fisheries and Oceans Canada under the *Fisheries Act*. The Metal Mining Effluent Regulation under the *Fisheries Act* and administered by Environment Canada will require a Schedule II authorization to permit discharge of deleterious substances to the Tailings Impoundment Area (TIA) because the site for the tailings impoundment contains fish. Approvals for water crossings will also be required from Transport Canada under the *Navigable Waters Protection Act*. An explosive factory license and explosives magazine license will be required from Natural Resources Canada under the *Explosives Act*, as will an approval for storage of explosives from Natural Resources Canada under the *National Transportation Act*. Other federal requirements such as those in respect of radio communication and aviation matters will need licenses.

**Table 2.1.2-1 Federal Authorities**

<b>Federal Agency</b>	<b>Approval/License</b>	<b>Act</b>
Fisheries and Oceans Canada	Section 35(2) <b>Authorization</b> Fish Habitat Compensation Agreement	<i>Fisheries Act</i>
Environment Canada	<b>Section 36(3), 36(5) and 38(9)</b>	<i>Fisheries Act</i> Metal Mining Effluent Regulation
Canadian Coast Guard	Navigable Water: Stream Crossings <b>Authorization</b>	<i>Navigable Waters Protection Act</i>
Natural Resources Canada	<b>Explosives Factory License Explosives Magazine License</b>	<i>Explosives Act</i>
Transport Canada	<b>Approval</b> Ammonium Nitrate Storage Facilities	<i>National Transportation Act</i>
Industry Canada	<b>Radio Licenses</b>	<i>Radio Communication Act</i>
Canadian Nuclear Safety Commission (Natural Resources Canada)	<b>Radioisotope License</b> (Nuclear Density Gauges/X- ray analyzer)	<i>Atomic Energy Control Act</i>

A BC *Mines Act* permit is required that authorizes construction, operation and closure of the mine (Section 10 of the *Mines Act* [RSBC 1996] Chapter 293) (Government of British Columbia, 1996). Surface rights-of-way, and licenses of occupation, and mining leases are required under the *Land Act and Land Title Act*. Numerous licenses and permits are required under the *Environmental Management Act*, including permits for emissions to the air, discharge of effluent, the storage and handling of industrial waste and solid refuse, a permit establishing water quality requirements for the discharge of water, and an air discharge permit. The camp facilities at the mine site for employees will require construction and operations permits issued by the Ministry of Health. Numerous other permits issued by the Ministries of Transportation, Tourism, and Forests and Range prior to construction. A table summarizing the provincial regulatory requirements of the Project is provided in Table 2.1.2-2.

**Table 2.1.2-2 Provincial Permits and Licenses Required**

<b>Approval/Permit/License</b>	<b>Issuing Department/Ministry</b>	<b>Act</b>
<b>Permission</b> for transportation and utilities use	Agricultural Land Commission	<i>Agricultural Land Commission Act</i>
<b>Permit</b> approving Work System and Reclamation (mine site - initial development; pre-production; production)	Ministry of Energy and Mines	<i>Mines Act</i>
<b>Licenses of Occupation</b> for borrow/gravel Pits; staging areas during construction	Ministry of Forests, Lands, and Natural Resource Operations	<i>Land Act</i>
<b>Statutory Right of Way</b> for the transmission line	Ministry of Forests, Lands, and Natural Resource Operations	
<b>Statutory Rights of Way, Easements</b> on private land for the transmission line	Ministry of Forests, Lands, and Natural Resource Operations	<i>Land Title Act</i>
<b>License to Cut</b> for mine site, gravel pits/ borrow areas; access road, transmission line corridor	Ministry of Forests, Lands, and Natural Resource Operations	<i>Forest Act</i>
<b>Road Use Permits</b>	Ministry of Forests, Lands, and Natural Resource Operations	<i>Forest and Range Practices Act</i> (previously under <i>Forest Act</i> Sec. 47)
<b>Special Use Permit</b> for the access road	Ministry of Forests, Lands, and Natural Resource Operations	Forest Practices Code of BC (Provincial Forest Regulation, BC Regulation 562/78)
<b>Authorization</b> for public highway and overhead power line crossings	Ministry of Transportation and Infrastructure	<i>Transportation Act</i>
<b>Water Licenses</b> for storage and diversion; water use	Ministry of Forests, Lands, and Natural Resource Operations	<i>Water Act</i>
<b>Approval</b> for the short-term use of water, or approval for changes in and about a stream	Ministry of Forests, Lands, and Natural Resource Operations	
<b>Waste Management Permit</b> for effluent discharge (sediment, tailings & sewage); air discharge (crushers, concentrator); refuse	Ministry of Environment	<i>Environmental Management Act</i>
<b>Special Waste Generator Registration and Transport License</b> for waste oil, grease, automotive batteries	Ministry of Environment	<i>Environmental Management Act</i> (Special Waste Regulations)
<b>Amendment</b> to Closed Area Regulation 221/2005	Permits and Authorizations Service Bureau, Ministry of Environment	<i>Wildlife Act</i>
<b>Camp Operation Permits</b> for drinking water, sewage disposal, sanitation and food	Ministry of Health	<i>Health Act</i>
<b>Alteration Permit</b> for disruption of archaeological resources	Heritage Conservation Act	<i>Heritage Conservation Act</i>

Compliance with all existing applicable federal and provincial environmental legislation will occur through a variety of methods, consistent with those in place at Taseko's Gibraltar Mine. Ensuring that the protective measures, monitoring, and reporting requirements contained in any permit, approval or licenses are adhered to across the mine site will be assured via the site Environmental Management System (EMS). Taseko's Environment Policy contains the commitment to compliance and to integrating environmental policies, programs and practices into all activities at all operations. Numerous mechanisms exist in the EMS, including a senior management environmental committee, Environmental Management Programs and Operational Controls being established. As part of the EMS, Environmental Awareness Training and education in the EMS programs will be conducted on a regular schedule for all site employees, similar to safety training sessions, to ensure that all employees understand their environmental responsibilities. In addition, external compliance audits to verify compliance with permits, approvals and licenses will be conducted as part of the EMS. The Environmental Manager for the New Prosperity Project will have the responsibility to ensure that qualified staff are hired to implement the EMS, collect monitoring data, prepare reports and conduct the necessary training sessions, thus creating a multi-tiered system that will ensure compliance with applicable federal and provincial environmental legislation.

The enforcement branch of each government agency responsible for any given permit, approval or license set their own schedules for conducting desk-top and/or on-site inspections related to their mandate. The role of the enforcement agencies are to ensure that the permits, approvals and licences are being adhered to and identify if amendments are required based on the state of the mine operations. Taseko's Environment Policy further commits to working with Government and the public to develop effective and efficient measures to improve protection of the environment, based on sound science.