
TABLE OF CONTENTS

7.3 Summary of Assessment of Social Effects..... 7.3-1

List of Tables

Table 7.3-1: Summary of Assessment of Potential Social Effects 7.3-4

7.3 Summary of Assessment of Social Effects

The Valued Components (VCs) assessed for Social Conditions include Demographics; Regional and Community Infrastructure; Regional and Local Services; Family and Community Well-Being; Non-traditional Land and Resource Use (NTRLU); Current Land and Resource Use for Traditional Purposes (CLRUTP); and Visual Resources. **Table 7.3-1** presents the summary of the assessment for each social VC including the potential effects, key mitigation measures, and the evaluation of significance of the each assessment.

Project effects on regional demographics have been determined to be Not Significant (negligible to minor) throughout all phases of the proposed Blackwater Gold Project (the Project), as the Project will utilize camps to house workers during the construction and operations phases and is not expected to draw large numbers of immigrants to the area.

Small population impacts in the Local Study Area (LSA) or the Socioeconomic Regional Study Area (SERSA) are predicted primarily due to New Gold Inc. (the Proponent)'s plans to: recruit from within the SERSA; provide a camp during the construction and operations phase of the Project; and provide training opportunities and competitive work packages to enhance local recruitment of workers. Prince George and Vanderhoof have sufficient capacity related to community infrastructure and services to absorb the potential new demand resulting from Project operations workforce and their dependants that choose to relocate to the region (estimate: 232 people to Prince George and 58 people to Vanderhoof). Project pressure on regional recreational and leisure services is expected to be mitigated by the provision of camp accommodations of a good standard that include good social and recreational facilities. As a result, the residual effects on infrastructure services are predicted to be Not Significant (negligible and minor).

After taking into account the potential effects and proposed mitigation measures, the residual effects of Project-related traffic on road, rail, and air infrastructure (i.e., incremental traffic, potential safety of other road users, potential road deterioration, and motor vehicle collisions with wildlife and livestock) during construction and operations is expected to be minor and Not Significant. With the sharp decrease in Project-related traffic and related effects during mine decommissioning and closure, and post-closure, the risks of transportation issues would be negligible.

As stated previously, the Proponent's plan to recruit the majority of the workforce from within the SERSA and the provision of camps during construction and operations is expected to lead to small population impacts in the SERSA. If up to 290 people (100 families) choose to move in permanently to the SERSA, implications for regional services will primarily be associated with transportation activities and onsite work accidents and illness and the additional demands for policing and health services during construction and operations. However, a low effect that is Not Significant (minor) is predicted.

Project effects on family and community well-being in the study region will be both positive (during construction and operations because of income effects) and negative (during closure because of job losses). All of these adverse effects are Not Significant; they are negligible during construction and minor during operations and closure.

BLACKWATER GOLD PROJECT

APPLICATION FOR AN
ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



The NTLRU assessment has presented both the potential negative and positive local, regional, and cumulative effects of the Project on NTLU and users, and has considered Project effects throughout the Project life cycle. The majority of Project-specific land and resource use effects in all study areas will be low in magnitude, due to the Project design and the implementation of appropriate mitigation measures, including compensation, where applicable. The remaining Project-specific land and resource use effects will be negligible after mitigation.

The primary effect of clearing land for industrial use will be a reduction to the available land base for other land and resource uses. Progressively, throughout the Project and following decommissioning, the Proponent will revegetate and reclaim cleared areas to make them available for other land use activities. This will be carried out in accordance with the Reclamation and Closure Plan (RCP) (**Section 2.6**).

An increase in access creates both positive and negative effects on land and resource uses and users. It facilitates land use activities by opening up new areas and reducing travel times. Conversely, new access may place pressure on some resources and create potential for conflict among users. The Proponent has committed to implement a Transportation and Access Management Plan (TAMP), adhere to the terms and conditions of the Canfor Road Use Agreement and may in the future take over prime responsibility for implementation of the road use agreement, and work with forestry and other stakeholders to address ongoing and current access issues. In cooperation with locally affected trappers, guide outfitters, farmers, ranchers, and private land holders, the Proponent will develop and implement mitigation measures, according to established industrial and provincial protocols and best practices.

Potential effects on CLRUTP were assessed for each Aboriginal group. The Proponent is continuing to engage with potentially affected Aboriginal groups, and is in discussions to obtain further traditional land and resource use information. Project-related effects on CLRUTP will be considered as new information becomes available.

The significance of effects of Project-related disturbances and activities on the CLRUTP VC was assessed after the application of mitigation measures. Effects were considered for the following indicators:

- Hunting;
- Trapping;
- Fishing;
- Plant Gathering; and
- Other Cultural Traditional Uses of the Land, including trails and travel routes, and other cultural features.

No significant residual effects were identified. Residual effects were determined for the Lhoosk'uz Dene Nation (LDN) and Ulkatcho First Nation (UFN) including: Not significant (minor) for LDN trapping, fishing and plant gathering and UFN trapping, fishing, plant gathering and other cultural and Traditional Uses of the Land (trail at mine site and CMTs); Not significant (moderate) for LDN

BLACKWATER GOLD PROJECT

APPLICATION FOR AN
ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



and UFN hunting; and Not significant (negligible) for LDN other cultural and Traditional Uses of the Land (trail at mine site and CMTs).

The assessment of potential effects on visual resources concluded that effects would be Not Significant (negligible) at the Endako and Francois Lake road crossing points and at Tahultzu Lake, Chief Grey Lake, Hobson Lake, Chedakuz Lake, Top Lake, Snake Lake, and Kuyakuz Lake. Effects were considered Not Significant (minor) at the Cheslatta Trail crossing point and Brewster Lake, and Not Significant (moderate) at the Stellako and Nechako River crossing points and Tatelkuz Lake east bank locations. The Stellako River crossing point is considered Not Significant (negligible) if the reroute along the existing transmission line is selected.

Table 7.3-1: Summary of Assessment of Potential Social Effects

Valued Components (Identify Phase of Project) ⁽¹⁾	Potential Effects	Key Mitigation Measures	Evaluation of Significance of Residual Effects (Summary Statement)
Demographics (C, O, CL)	In-migration of construction workers and their dependents Out-migration of operations workers and their dependents	Demographics was selected as a Project VC because it is common practice to evaluate potential population changes because it directly affects the quality of life in a region and assists public and private agencies in planning for future capacity requirements for various services. This VC is included in the AIR/EIS Guidelines for the Project. This section lists the key mitigation used in the assessment process. A full list of mitigation used in the assessment is discussed in Section 7.2.2 . Use of a camp with capacity to accommodate 1,500 workers. Construct an on-site airstrip to facilitate transport of construction workers from outside the SERSA and provide grouped transportation between Vanderhoof and the mine construction camps. Continue to provide buses between Vanderhoof and the operations camp. The Proponent intends to develop and hire the majority of the operations workforce from within the SERSA. Use of operations camp with capacity to accommodate 500 workers. The Proponent will provide incentives and inducements to workers to move permanently to the Local Study Area (LSA) and encourage New Gold management team to reside in the SERSA. The Proponent intends to hire the majority of the CL workforce from within the SERSA.	Residual effects from in-migration of construction workers during the construction phase are expected to be neutral, low in magnitude, regional, short-term, continuous, reversible, low in likelihood and Not Significant (Negligible). Residual effects from in-migration of workers and their dependents during the operations phase are expected to be positive, low in magnitude, regional, long-term, continuous, reversible, moderate in likelihood and Not Significant (Minor). The effects of mine closure on the population are described as negative, low in magnitude, local, long-term continuous and reversible. The final impact rating is Not Significant (Negligible).
Regional and Community Infrastructure (C, O, CL)	In-migration creates additional housing, utilities, recreation, and leisure service. Transportation of workers, equipment, services, and materials to/from mine site and off site infrastructure will create additional vehicle traffic, resulting in increased potential for motor vehicle accidents, and increased road wear and maintenance. Out-migration of workers decreases housing demand, utility, recreation, and leisure services.	The potential social effects of the Project on Regional and Community Infrastructure will ultimately depend on the extent to which Project-related population growth and Project activities result in increased demands on regional infrastructure, as well as on the ability of this infrastructure to accommodate increasing demands. This section lists the key mitigation used in the assessment process. A full list of mitigation used in the assessment is discussed in Section 7.2.3 . Use of construction camp with capacity to accommodate 1,500 workers will offset Project's demands for housing, utilities, recreation, and leisure services. Provision of an airstrip on-site to transport construction workers from outside the SERSA. The Proponent intends to hire the majority of the operations workforce from within the SERSA. Use of operations camp with capacity to accommodate 500 workers will offset Project's demands for housing and utility services, recreation and leisure services. The Proponent will provide incentives and inducements to workers to move permanently to the Local Study Area (LSA) and encourage New Gold management team to reside in the SERSA. Implement an Industrial and Domestic Waste Management Plan. Payment of tippage fees to regional district. During the closure phase, the Proponent will work with local service providers to incorporate potential decline in population in planning. The Proponent will work with the SERSA communities to develop a mine closure plan that identifies strategies and actions to help minimize the potential adverse effects of closing the mine. Busing decommissioning and closure workers between Vanderhoof and mine to reduce traffic volume. Adherence of Project-related traffic to terms and conditions of the Kluskus Road Management Agreement and New Gold Traffic and Access Management Plan. Complete upgrades to sections of the Kluskus Forest Service Road (FSR) to enhance transportation safety as described in the Application and the TAMP.	The construction residual effects on infrastructure services-housing, utilities, recreation are characterized as low in magnitude, regional, short-term, continuous, reversible, and medium in certainty. The effects are considered Not Significant (Negligible). Project operations residual effects are characterized as low in magnitude, local, long-term, continuous, and reversible. Given the good capacity of infrastructure services in Vanderhoof and Prince George, (i.e., available selection and supply; reasonable, stable prices) the effect of limited increased demand for housing, utilities, and recreation and leisure services is considered to be neutral and is rated as Not Significant (Minor). The effects of mine closure on infrastructure services are described as negative (undesirable decrease demand for housing, utility, and recreation and leisure services), low in magnitude, local, short-term continuous, and reversible and considered to be Not Significant (Negligible). Taking into account the mitigation measures embedded in the Project design, and the Proponent's corporate policies, plans, and procedures, the residual effects on regional transportation in terms of potential road deterioration, road user safety, and potential vehicle collisions with wildlife and livestock would be adverse; however, low to medium in magnitude and local to regional in extent during the construction, operations, decommissioning, and closure phases, and not detectable during the post-closure phase of the Project. During construction and operations the significance determination is Not Significant (minor) and during closure the significance determination is Not Significant (Negligible).
Regional and Local Services (C, O, CL)	In-migration and out-migration affects demand for education, health, and social services. Project hiring requirements will increase demand for training programs and apprenticeship programs. Traffic volumes to and from mine site would increase demand for health and protective services if accidents occur.	Regional and Local services was selected as a Project VC because the potential effects of the Project on regional services within the SERSA are dependent upon Project-related population growth and activities resulting in increasing demands on existing regional services, as well as on the ability of these services to accommodate these additional demands. Regional services include education, health services, protection services and facilities (law enforcement, fire protection and emergency services), and social services and facilities. This section lists the key mitigation used in the assessment process. A full list of mitigation used in the assessment is discussed in Section 7.2.4 .	Project construction effects on regional services are characterized as low in magnitude, regional, continuous, reversible, short-term, and neutral for all indicators except Protective Services and Health services. With minimal population impacts, the key impact on regional services is anticipated to be a slightly increased demand for protective services (ambulance services, first responders, and police) and health services, driven by the movement of workers and goods to the mine during construction and construction activities if accidents occur. These effects are expected to be minimized by the implementation of mitigation measures and transportation management plans. Given that New Gold will provide a self-contained construction camp, there will be limited additional

BLACKWATER GOLD PROJECT

APPLICATION FOR AN
ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



Valued Components (Identify Phase of Project) ⁽¹⁾	Potential Effects	Key Mitigation Measures	Evaluation of Significance of Residual Effects (Summary Statement)
	<p>Accidents and incidents at worksite could increase demand for regional health, protective and emergency services.</p> <p>Reduction in traffic volumes to mine site and termination of mine decreases demand on regional health, protective and emergency services.</p>	<p>The provision of camps during the construction and operations phases will limit in-migration and any related demands for school services.</p> <p>The provision of camp during the construction and operations phases will offset Project's demands for health and protective and social services.</p> <p>Establish a self-contained construction camp and appropriate worker rotation during the construction phase in order to offset Project demands for regional services. The Proponent will:</p> <p>Implement a no on site alcohol and drug policy and no hunting and fishing policy, including related activities, for construction and operations staff and contractors while on company business or staying in accommodations provided by the company. Establish and implement policies to promote: no workplace harassment; health, safety and security; multi-cultural workforce considerations; and Aboriginal awareness training and report progress. Report yearly on progress. Establish and implement RTEMP that includes training for:</p> <ul style="list-style-type: none"> • Working with training institutions such as the College of New Caledonia (CNC) and BC Aboriginal Mine Training Association and local education providers to provide training programs and skills upgrading; • Partnering with local contractors to provide New Gold apprenticeship programs; • Source and train under-represented groups; and • Offer scholarships to encourage high school graduation. <p>Report progress in implementing the RTEMP annually to designated Aboriginal groups. The Proponent will:</p> <ul style="list-style-type: none"> • Establish health and medical services (equipment and personnel) to meet the requirements of the Health, Safety and Reclamation Code for Mines in British Columbia and WorkSafeBC. Provide arrangements to med-evac workers with life-threatening illnesses or injuries to the nearest appropriate facility within the SERSA. • Work closely on an ongoing basis with Northern Health, local fire departments, Royal Canadian Mounted Police (RCMP), and BC Ambulance to ensure that the appropriate information on the changes in area transportation volumes, mine operations, and the change to the local population are considered. • Provide full firefighting equipment and trained personnel to meet all onsite fire and rescue needs. • Provide at the mine site trained mine rescue personnel and mine rescue equipment as well as onsite security. • Work with local service providers to incorporate decline in population in planning. <p>The Proponent will:</p> <ul style="list-style-type: none"> • Work with the community to develop a mine closure plan that identifies strategies and actions to help minimize the potential adverse effects of closing the mine. 	<p>demand on regional services associated with the non-resident workers. These effects are considered Not Significant (Negligible) because of the relatively low magnitude and short-term duration of the Project effects. Confidence in this assessment is high.</p> <p>Project operations effects on regional services are characterized as low in magnitude, regional, long-term, continuous, reversible, and negative for all indicators except education that has a positive effect. Given the relatively small population increase anticipated (290 people or 100 families) and with most of it likely concentrated in the City of Prince George and the District of Vanderhoof, the increased demand on services associated with the population effect is considered Not Significant (Minor). In addition, mine operations and transportation associated with mine operations and the mine site are anticipated to have only a minimal impact on regional services over the period of mine operations. Confidence in this assessment is high. New Gold's self-contained camp and worker logistics and behaviour policies and programs for both construction and operations will minimise the demand for local and regional services from rotational personnel.</p> <p>Closure of the mine and a substantial reduction of truck transportation will reduce demand on regional policing, ambulance, fire rescue services, and health care services. However, the effect will be small (low in magnitude) and reversible, and the demand reduction on these services will be neutral and long term. Overall, given the magnitude and direction of the effects on regional services, they are considered Not Significant (Minor).</p>
<p>Family and Community Well-being (C, O, CL)</p>	<p>Population-related effects:</p> <ul style="list-style-type: none"> • Influx of construction workers could reduce family and community well-being if transient population engages in socially disruptive or illegal activities. <p>Income related effects:</p> <ul style="list-style-type: none"> • Employment income during construction would reduce economic hardship of families in the SERSA. • Positive or negative decisions on spending disposable income could affect family and community well-being. 	<p>Family and Community Well-being services were selected as a Project VC because the Project will provide employment opportunities for residents of the SERSA and may result in some new workers moving into the region. The potential change in regional demographics and new Project-related income and spending decisions may affect the well-being of individuals, families, and communities. This section lists the key mitigation used in the assessment process. A full list of mitigation used in the assessment is discussed in Section 7.2.5. The provision of a self-contained camp and worker rotation policies during construction will minimize the influx of workers to the SERSA.</p> <p>The Proponent will:</p>	<p>For both construction and operations, the effects on economic hardship are considered positive since employment income will increase families' economic capacity and quality of life. The net loss of employment following mine closure is considered adverse but Not Significant (Minor). With minimal population impacts, the residual effects related to population influx and associated increase of disruptive or illegal activities are considered negative but Not Significant (Negligible to Minor). Effects on family relationships associated to separation of workers from their families would be negative; however, with mitigation measures in place the effects are expected to be Not Significant (Minor).</p> <p>The categorization of significance for effects related to behavioural changes and spending decisions (effects on crime and family relationships) are made with a moderate degree of confidence since it is difficult to predict individual and family behaviour and decisions.</p>

BLACKWATER GOLD PROJECT

APPLICATION FOR AN
ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



Valued Components (Identify Phase of Project) ⁽¹⁾	Potential Effects	Key Mitigation Measures	Evaluation of Significance of Residual Effects (Summary Statement)
	<ul style="list-style-type: none"> • Inequitable employment and income. • Camp accommodation and work rotation schedules could lead to deterioration of family relationships. • Loss of jobs and income, and potential out-migration 	<ul style="list-style-type: none"> • Offer counselling services as well as cultural awareness training and harassment-free workplace to its employees. • Work with local agencies to assist in monitoring community well-being and take corrective actions where appropriate, including developing a health and well-being management plan based on guidelines from Northern Health. Deposit workers' salaries in their bank accounts and provide access to money management training. • Offer counselling services as well as cultural awareness training and harassment-free workplace to its employees. • Implement a hiring strategy that will include sourcing and training under-represented groups. • Work with Aboriginal groups to develop a strategy to identify and reduce identify and remove barriers to employment and training and report progress annually to BC MEM and designated Aboriginal groups.. Offer reasonably short shift rotations to minimize separation from family (14 on/14 off or 4 on/3 off) and allow flexibility to accommodate hard to fill positions. • Ensure phone and Internet services are available to enable employees to communicate with their families. <p>During closure the Proponent will:</p> <ul style="list-style-type: none"> • Work with the community to develop a mine closure plan that identifies strategies and actions to help minimize the potential adverse effects of closing the mine; and • Work with local education providers to facilitate access to training programs and skills upgrading 	

BLACKWATER GOLD PROJECT

APPLICATION FOR AN
ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



Valued Components (Identify Phase of Project) ⁽¹⁾	Potential Effects	Key Mitigation Measures	Evaluation of Significance of Residual Effects (Summary Statement)
<p>Non-traditional Land and Resource Use (C, O, CL)</p>	<p>Disruption of the use of registered traplines and guide outfitting areas overlapped by the mine footprint, transmission line, water supply pipeline, access roads, and airstrip</p> <p>Impact on access to registered traplines, guide outfitting and fishing areas overlapped by the mine footprint, transmission line, water supply pipeline, access roads, and airstrip Disturbance and disruption of agricultural practices, livestock and equipment</p> <p>Disruption of use of range tenures</p> <p>Disturbance or compaction of topsoils and subsoils, and the potential spread of noxious weeds</p> <p>Contribute to spreading of the MPB infestation</p> <p>Disruption of forestry-related activities, forestry access, and FSRs</p> <p>Noise and emissions and dust generation associated with all Project components' infrastructure development may temporarily disrupt land and resource use activities (i.e., trapping, guide outfitting, mineral exploration and forestry, and recreation and tourism activities), users, and local residents</p> <p>Disruption of the use of tenures in relation to the mine footprint, transmission line, water supply line, access roads, and airstrip</p> <p>Disturbance to water use areas (licensed groundwater wells)</p> <p>Impediment to safe navigation and temporary access restrictions across waterways that interact with Project crossings and facilities</p> <p>Creation of new linear access where access corridors are currently non-existent. This enhances consumptive and non-consumptive recreational uses as a result of year-round access and may lead to conflicts between resource users</p> <p>Disruption of the use of tenures in relation to the mine footprint, transmission line, water supply line, access roads, and airstrip</p> <p>Change in quality of experience for trapline holders, guide outfitters, mineral explorationists and forestry, and the public recreating in the area of the Project</p> <p>Disruption of land and resource users due to noise due to blasting (if applicable), operation of Project equipment, and traffic</p> <p>Project activities and equipment may create emissions and dust and inconvenience to land and resource use stakeholders. Disruption to agricultural practices, equipment, and livestock</p> <p>Disturbance or compaction of topsoils and subsoils, and the potential spread of noxious weeds</p> <p>Effects associated with Project access and transportation may cause traffic safety issues, inconvenience, dust, and noise pollution, and disrupt land and resource use stakeholders (e.g., trappers, guide outfitters, consumptive recreationers, tenure holders, residents) and their activities (i.e., trapping, guide outfitting, fishing, mining exploration and forestry, and recreation and tourism) related to access, their respective practices, and use of the resource. Noise and emissions and dust generation associated with Project components' infrastructure development may temporarily disrupt land and resource use activities (i.e., trapping, guide outfitting, mining exploration and forestry, and recreational and tourism activities), users, and local residents.</p>	<p>NTLU was selected as a Project VC because local communities, Aboriginal groups, and local, provincial, and federal governments value land used. This section lists the key mitigation used in the assessment process. A full list of mitigation used in the assessment is discussed in Section 7.2.6.</p> <p>Continue to consult through construction and operations with tenure holders overlapping the project components to consider how operational plans can incorporate other land uses and report results to BC Ministry of Forests, Lands and Natural Resource Operations. Providing advance notification of Project schedules to relevant recreational stakeholders (i.e., recreational groups, lodges, campsites, etc.), and rural residents who will be in close proximity to Project activities.</p> <p>Compensate affected trapline holders in accordance with industry and provincial protocols with associated proof of lost revenue (e.g., registered trapper compensation program for oil and gas, BC Ministry of Energy and Mines). Notifying affected registered trapline holders, guide outfitters, lodge owners linked to the outfitters in relevant WMUs, and the local offices of the British Columbia Ministry of Forests, Lands and Natural Resource Operations (BC MFLNRO) (which can relay the information to recreational hunters and fishers).</p> <p>Limiting disturbance to the habitat of marten, weasel, beaver, muskrat, and other furbearing species during construction by avoiding, where possible, prime denning and breeding habitat (e.g., mature riparian forests and old forest stands, which are favoured denning habitats for marten).</p> <p>Implementing Wildlife Management Plan (WLMP).</p> <p>Establish and implement TAMP that includes a traffic control and management strategy along the right-of ways (ROWs) and facilitates movement of livestock and farm machinery across the ROW corridors, where applicable. Implementing a Traffic Control and Management Strategy along the right-of ways (ROWs).</p> <p>Establish a committee including affected Aboriginal groups representatives to discuss and implement mitigation measures as required for access management along the transmission line corridor.</p> <p>Requiring Project vehicles to use only the ROWs and designated access roads near Project development areas to minimize compaction of agricultural soil.</p> <p>Implementing preventative protocols for cleaning of equipment (i.e., construction and excavation) of weeds, according to government and industry standards (i.e., weed control plans and guidelines).</p> <p>Facilitating movement of livestock and farm machinery across the ROW corridors, where applicable.</p> <p>Identifying alternative watering locations or options in discussion with the land and livestock owner, if livestock access to water supply is curtailed by mine operations activities or infrastructure.</p> <p>Requiring drivers to close gates properly when Project vehicles require access to the ROW corridors on fenced and gated lands.</p> <p>Providing maps and early notification of Project development and other physical work to affected regional forestry stakeholders.</p> <p>Actively participating in the Project road sharing agreement.</p> <p>Follow all BC MFLNRO guidelines and requirements for clearing, handling, and hauling beetle-infested wood (e.g., Guidance on Landscape and Stand-level Structural Retention in Large-scale Mountain Pine Beetle Salvage Operations, 2005; Bark Beetle Management Guidebook, 1995). Erecting appropriate signage on affected recreational and snowmobiling trails, warning users of temporary trail closures, if scheduling to avoid trail users is not possible or feasible. Using signs at site locations to inform stakeholders where appropriate.</p> <p>Scheduling construction activities (if avoidance is not possible) during acceptable hours daily until the work is completed.</p>	<p>The Proponent will implement appropriate mitigation measures for all effects, and will resolve issues based on standard industry and provincial protocols and best practices. Thus, the overall effect of the Project on communities and private land use is Not Significant (Minor).</p> <p>When considering the Project as a whole (all study areas), the residual environmental effect of access, noise, and dust disturbances on designated recreation areas, non-consumptive recreation activities, and tourism areas is Not Significant (Minor). Effects on recreation of access creation due to new linear developments will be positive. Residual effects of access and noise disturbances are also not expected to act synergistically. Mitigation will be implemented appropriately.</p> <p>For mining and mineral exploration, the Project's components and activities are expected to affect access to mineral tenures. Given the mitigation measures that will be implemented, where applicable, the residual effect is Not Significant (minor). Project activities will affect the forestry land base, and will remove merchantable timber and disrupt access to forestry activities and forestry roads. The Proponent will implement appropriate mitigation measures for all effects. Thus, the overall residual Project effects on forestry and timber resources are Not Significant (minor).</p> <p>Residual environmental effects on traplines and hunting will be reduced through mitigation measures including cooperative planning with users to limit effects on access and harvesting activities, as well as increased access by public users. Mitigation for trapping will include compensation based on industry and government protocols if resource areas are affected as a result of the Project. Additionally, the proportions of resource areas directly affected are relatively minor. As a result, the overall residual effect of the Project on hunting, trapping, and guide outfitting is concluded to be Not Significant (Minor).</p> <p>The sole Project effect on fishing in all study areas is the temporary obstruction of access to prime fishing locations resulting in temporary relocation to other fishing areas. This effect will be effectively mitigated and therefore, residual effects are Not Significant (Negligible).</p> <p>The Proponent will implement appropriate mitigation measures to address the effects on agriculture and range tenures, and address issues according to standard industry and provincial protocols and best practices. Thus, the overall residual effect of the Project on agriculture and range land use is Not Significant (Minor).</p> <p>Generally, the short-term, residual, low environmental effect on private land use is that of noise, dust, and access disturbance in all study areas. The disruption of private land base is minor when considering the Project as a whole, and occurs only if the Stellako re-route alternative is adopted.</p> <p>In the content of the entire Project area, Land Act tenures occur only in the transmission line study area. Project components and activities are not expected to impose future restrictions on access of the use of tenures after construction activities. Given the mitigation measures that will be implemented, based on standard industry and provincial protocols and best practices, the residual effect is Not Significant (negligible). The residual effect on water licences is minor in the context of the overall Project study areas, as it occurs only in two areas in the transmission line study area. The Proponent will implement appropriate mitigation measures by utilising temporary fencing during construction to protect the wells. Thus, the overall residual effect of the Project on surface water and groundwater use is Not Significant (Negligible).</p> <p>In the context of the overall Project, the only minor effects on recreational and commercial use of waterways occur in the transmission line study area during construction and decommissioning. The residual effects of safety, access, water-flow on use of waterways will be effectively mitigated. Therefore, effects to recreational and commercial use of waterways are considered Not Significant (Negligible).</p> <p>The residual effects of the Project on transportation and access are expected to be both positive and negative. These effects will vary across the Project areas. Negative residual effects by Project works will include disruption and wear and tear on roads (i.e., highways, secondary roads, and FSRs), disruption of access, and safety issues. Positive residual effects will include the creation of new linear developments (i.e., transmission line ROW, service road, water pipeline ROW, and access road) that may be used by a variety of stakeholders. Section 2.2.4.4.1 provides details related to temporary or permanent transmission line access road. The final location of the transmission line access roads will be determined during the detailed engineering and permitting stage, and will consider traditional knowledge and traditional use information provided by Aboriginal groups, as</p>

BLACKWATER GOLD PROJECT

APPLICATION FOR AN
ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



Valued Components (Identify Phase of Project) ⁽¹⁾	Potential Effects	Key Mitigation Measures	Evaluation of Significance of Residual Effects (Summary Statement)
		<p>Controlling dust with wetting agent at regular intervals and/or when required, as necessary.</p> <p>Protecting the well with temporary fencing during construction.</p> <p>Having temporary access restriction at locations where the crossing areas intersect potential put-in places/points for water access.</p> <p>Informing water-based recreational stakeholders about construction activities in advance i.e., Northwest Brigade Paddling Club, nearby lodges, the local offices of BC MFLNRO.</p>	<p>appropriate. Its design will follow the same principles of using existing roads avoiding sensitive habitat to the extent possible. Given the mitigation measures related to road sharing and implementation of the transportation and access management plan (TAMP) which addresses safety, increased traffic, and other stakeholder-specific issues, the adverse residual effect is Not Significant (minor).</p>
<p>Current Land and Resource Use for Traditional Purposes (C, O, CL, PC)</p>	<p>Potential effects on hunting and trapping include reducing the availability of wildlife by removal of the habitat used by the species of wildlife that are hunted or trapped by Aboriginal peoples. There is also an increase risk of wildlife mortality associated to project activities such as transportation of workers and materials. Sensorial disturbances such as noise and light caused by traffic and the construction and operation of the mine site can also affect the availability of wildlife. Development of linear corridors could open access to other people and increase the pressure on existing resources. The experience of hunting and trapping can be affected by the same sensorial disturbances affecting wildlife (i.e. noise and lights). Project atmospheric emissions and liquid effluents have the potential to create a pathway for contamination of animals that Aboriginal people harvest as country foods.</p> <p>Plant gathering could be affected by the removal of habitat where traditional use plants are found and changes to access to the mine site and along the linear project components. Sensorial disturbances such as noise and lights would also affect the experience of gathering traditional plants around the mine site during operations. Finally, project emissions and effluents have the potential to create a pathway for contamination of plants that Aboriginal people gather as country foods.</p> <p>Changes in the hydrological regime of the catchments where the mine site is located has the potential to affect fish and fish habitat. Potential effects on fishing. The fresh water supply system required to provide the mine site with fresh water could also affect fishing. Mining effluents could also create a pathway for the contamination of fish that is consumed by Aboriginal people.</p> <p>Potential effects on other traditional uses of the land and resources can be created by changes of access to areas where other uses are practiced and by sensorial or visual disturbances that could affect the experience of using these resources.</p>	<p>General mitigation:</p> <ul style="list-style-type: none"> Proponent will continue to discuss potential Project effects on affected traditional land users throughout the life of the Project; Minimizing the Project footprint; Establish an Access Management Working Group with key stakeholders and potentially affected Aboriginal representatives to discuss access management for the transmission line corridor and the mine site; Implementing design and operational procedures to limit risks associated with malfunctions and accidents (Section 10); Ongoing consultation with Aboriginal groups will occur with respect to design and implementation of the final TAMP, for instance through the CLC if that mode of communications is acceptable to Aboriginal groups. Establishing a TK/TLU Committee with participation of Aboriginal groups on which territory the Project is located to monitor Project development to ensure that the commitments made by the Proponent in regards to TK/TLU are being complied with; and Implementing a Country Food Monitoring Program around the mine site (Appendix 9.2.2.B). <p>Hunting and trapping mitigation:</p> <ul style="list-style-type: none"> Prohibiting mine employees from hunting or trapping on mine site property; Redesigning the TSF and mine access road to avoid UWR; Developing mitigation and avoidance strategies through ongoing discussions with the Caribou Working Group; Setting reclamation goals to re-establish later winter habitat (Section 2.6); Disposing of wastes generated on site to limit the attraction of wildlife to the mine site (industrial and domestic waste management, Section 12); Participating in regional wildlife and resource management initiatives (specifically for ungulates); Implementing the respective EMPs (Section 12), addressing air quality and emissions management, transportation and access management, landscape, soils and vegetation management and restoration, wildlife management, visual resources and aesthetics management; Informing holders of affected trapline areas of Project activities, schedules, and locations; and Compensating affected trapline holders in accordance with industry and provincial protocols with associated proof of lost revenue. <p>Fishing mitigation:</p> <ul style="list-style-type: none"> Pump water from Tatalkuz Lake to a water reservoir below the ECD to meet instream flow needs in Davidson Creek. Commence flow maintenance immediately prior to the start of Project-induced flow reductions and operate through the operations and closure phases until the TSF discharges to Davidson Creek. Ongoing surface and groundwater monitoring for the life of the Project; 	<p>Hunting: Lhoosk'uz Dene Nation (LDN) and Uikatcho First Nation (UFN): The residual effect on hunting for the LDN and UFN is adverse, medium magnitude, since the Project overlaps with, and limits access to, areas that are used for hunting (Mount Davidson), but does not severely limit the ability to practice this activity within their Traditional Territory. The geographic extent of the effect is local (with the LSA) and long-term. The effect is reversible at closure and occurs continuously throughout the life of the Project. The effect is considered likely (high) and Not Significant (Moderate) primarily due to the local geographic extent of the effect. Confidence in this rating is moderate, since hunting practices are not well understood specific to LDN or UFN use, but mitigations for managing effects on wildlife species is well understood and effective.</p> <p>Trapping: LDN: Trapline TR0512T014 is currently used for trapping, and is considered an important cultural practice. The wildlife effects assessment for furbearers (Section 5.4.13) identifies that the residual effects of habitat loss and alteration, sensory, and change in furbearer population dynamics will not be significant. The residual effect to this trapline is considered adverse, low to medium magnitude, since the Project overlaps with very small portion of the trapline (1% to 10% change), and will not impede the activity. The geographic extent is site specific within the footprint of the mine site. The effect occurs over the life of the Project (long-term), continuously, but is reversible. The effect is likely (High) and is Not Significant (Minor), primarily due to the low magnitude of the effect and site-specific geographic extent. The confidence is high in this rating, since the information is based on an in-depth interview with the registered trapline holder.</p> <p>UFN: The UFN TLU identifies general areas used for trapping by the UFN including muskrat, black bear, coyote, fisher, fox, mink, and marten. The wildlife effects assessment for furbearers (Section 5.4.13) identifies that the residual effects of habitat loss and alteration, sensory, and change in furbearer population dynamics will not be significant. The residual effect to UFN trapping is considered adverse, low to medium magnitude, since the Project overlaps with a very small portion of habitat suitable for furbearers and that the vast majority of trapping sites will remain available for UFN use in areas outside of the mine site. The geographic extent of the effect on trapping is site specific within the footprint of the mine site. The effect occurs over the life of the Project (long-term), continuously, but is reversible. The effect is likely (high) and is not significant (minor), primarily due to the low magnitude of the effect and site specific geographic extent. The confidence in the determination of significance is moderate, since the exact locations of the trapping sites were not available and very conservative assumptions had to be made to estimate the potential loss of trapping sites.</p> <p>Fishing: LDN and UFN: The residual effect is negative since there is a loss of fish and fish habitat in the upper reaches of Davidson Creek. The magnitude of the impact is low since the Project affects a very small area (relative to overall number of water bodies used for fishing), and will not impede fishing in the other areas of the Regional Study Area (RSA) or LSA. The effect is site specific, confined to the area directly disturbed/affected by the Project (footprint as well as areas now inaccessible due to Project), and is permanent. The effect is irreversible and continuous. There is a high likelihood that the effect will occur. The effect is considered Not Significant (Minor) since the effect is low in magnitude and</p>

BLACKWATER GOLD PROJECT

APPLICATION FOR AN
ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



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		<ul style="list-style-type: none"> • Results of all water quality sampling will continue to be posted for working group and Aboriginal groups review; • Surface water and sediment quality will meet applicable provincial and federal standards downstream of the proposed mine site, to avoid effects on fish, furbearers, or animals that use those waters; • The proposed mine site will aim to operate as a zero discharge facility; • Implement erosion and sediment control measures, including erosion control matting, rip rap, and hydro seeding, which will protect erodible soils from entering water bodies; • Many of these measures are outlined in the EMPs (Section 12), addressing mine water management, water quality and liquid discharges management, transportation and access management, emergency and spill preparedness and response, landscape, soils and vegetation management and restoration, erosion and sediment control, aquatic resources management, wetlands management; • Mitigation measures are also presented in the fisheries mitigation and offsetting plan (Section 5.3.9); and • Mitigation for the introduction of workers to the region that may compete for fish resources includes the implementation of a no fishing policy for workers while they are resident at the work site. <p>Plant gathering mitigation:</p> <ul style="list-style-type: none"> • Implement EMPs (Section 12) to reduce dust deposition, nitrogen deposition, and invasive species proliferation; • Include traditional use plant species habitat in reclamation prescriptions (Section 2.6); and • Implementing a no plant harvesting policy for all workers while resident at the work site. <p>Other traditional land and resource use mitigation:</p> <ul style="list-style-type: none"> • Physical remains of cultural sites, such as cabins, archaeological sites, culturally modified trees, and trails identified through Heritage Effects Assessments, will be recorded, analyzed, and mitigated. Environmental Management Plans addressing archaeological and heritage resource management (Section 12) will provide further opportunities to address cultural sites that may be identified; • Informing workers of sensitive cultural areas, and implementing a policy of reporting and respectful use; • Implementing the respective EMPs (Section 12), addressing air quality and emissions management, transportation and access management, visual resources and aesthetics management; and • Developing alternative access plans with Aboriginal groups, where access to or use of specific cultural sites needs to be altered or is impeded. 	<p>site specific in geographic extent. Confidence in this prediction is moderate since mitigation of potential effects is well understood.</p> <p>Plant gathering: LDN and UFN: Overall the effect on plant gathering for LDN and UFN traditional purposes is considered both negative, since there is a loss of areas used for plant gathering within the LSA (due to clearing of the mine site and linear components). Plant gathering is considered an important traditional use since plants are harvested for food, medicines, and building materials. The magnitude of the effect is considered low, since the Project overlaps habitat where traditional use plants are present, but overall does not impede the activity, since traditionally used plants are widespread in the Fraser Plateau Ecoregion within which the majority of the RSA and LSA lies. The geographic extent of the effect is site specific since the effect is confined to the Project footprint, and is long-term, reversible, and continuous. Given the low magnitude and geographic extent, the effect is considered highly likely and Not Significant (Minor). Confidence in this prediction is moderate since mitigation of potential effects on plants is well-understood and proven effective.</p> <p>Other Cultural and traditional uses of the land: LDN: The residual effect on the use of the Messue Wagon Trail is negative, low in magnitude since linear components overlaps with very small portions of the trail in an already disturbed area, and will not impede the use of the trail. The effect will be experienced only in the intersection of the trail with these components and is, therefore, site specific in geographic extent. The effect is short-term, since it is only experienced in construction, reversible, and occurs once (in construction). The likelihood of occurrence is high and the effect is rated as Not Significant (Negligible). The level of confidence in this rating is high.</p> <p>UFN: The UFN have identified a trail, campsite, and a place name near the proposed mine site. The precise locations of the trail and campsite have not been determined. In the Heritage Effects assessment of the mine site, a trail and a number of Culturally Modified Trees (CMTs) associated with the trail have been recorded. Dates recorded from CMTs sampled do not indicate current use. The mine site area was identified in the TLUS as an area used with less intensity. The effect on the sites is negative. The likelihood of occurrence is high, but the magnitude is considered low, since the use appears to have occurred in the past and occurs over a relatively small area, is site specific and continuous, permanent, and irreversible. The effect is Not Significant (Minor) due to the low, site-specific nature of the effect. Confidence is moderate but could be increased with further community consultation.</p> <p>The Messue Wagon Trail will be temporarily disturbed to construct the freshwater pipeline in an already disturbed area and will not affect the use of this trail. The construction of the transmission line (either route) could also temporarily disrupt the use of the trail while the ROW is being cut, poles erected, and wires strung. After construction, the use of the trail should not be affected. The residual effect on the use of the Messue Wagon Trail is negative, low in magnitude since the Project components overlap with very small portions of the trail and will not impede the use of the trail. The effect will be experienced only in the intersection of the trail with these components and is, therefore, site specific in geographic extent. The effect is short-term, since it is only experienced in construction, reversible, and occurs once. The likelihood of occurrence is high and the effects rating is Not Significant (Negligible). The level of confidence in this rating is high.</p> <p>Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN) and Stellat'en First Nation (StFN) At the time of writing, traditional knowledge land use (TK/TLU) studies for NWFN, SFN and StFN had not been completed. Because of this, a determination of the significance of residual effects of the Project on the current use of land and resources by NWFN, SFN and StFN was not conducted. When and if TK/TLU information is provided, it will be used in the Project design, execution, management plans, permitting and monitoring.</p>

BLACKWATER GOLD PROJECT

APPLICATION FOR AN
ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



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<p>Visual Resources (C, O, CL, PC)</p>	<p>13 evaluations sites:</p> <ul style="list-style-type: none"> • Stellako River Crossing Point • Nithi Mountain • Cheslatta Trail Crossing Point • Tahultzu Lake • Nechako River Crossing Point • Chief Gray Lake/Hobson Lake • Brewster Lake • Chedakuz Lakes • Tatelkuz Lake Snake Lake • Top Lake • Mount Davidson • Kuyakuz Lake 	<p>Visual Resources was selected as a Project VC because local communities, Aboriginal groups, local, provincial, and federal governments, value visual ascetics. Potential effects of the Project are assessed at 13 evaluations sites where facilities may interact with visual resources. Certain sites are in the form of congregation points such as recreation sites of homesteads of permanent residents. Others are areas of recreation significance or visual sensitivity. Evaluation sites are described along the proposed transmission line from Endako in the north, moving south toward the mine site. This section lists the key mitigation used in the assessment process. A full list of mitigation used in the assessment is discussed in Section 7.2.8.</p> <p>The following measures relate to river valleys in relatively undisturbed settings was considered during the project planning and design phase and will serve as guidelines for post construction mitigation:</p> <ul style="list-style-type: none"> • Locate facilities near existing infrastructure to avoid additional surface disturbance; • Investigate site-specific measures and designs to soften visual effects from a river level vantage point, where structure might breach the natural ridgelines of the river valley; • Allow grass and brush to colonize the ROW for sections in visually sensitive areas; • Paint or stain structures to blend with the character of the surrounding environment; and • Investigate measures to soften the visual effects associated with overhead cables where the Stellako River flows underneath the proposed transmission line. <p>The following measures relate to screening and concealment was considered during the project planning and design phase and will serve as guidelines for post construction mitigation:</p> <ul style="list-style-type: none"> • Investigate measures to soften the visual effect of overhead cables where the Cheslatta Trail crosses underneath the transmission line. <p>Nechako River Crossing Point:</p> <ul style="list-style-type: none"> • Consideration regarding visual resource during the project-planning phase, led to the realignment of the transmission line route. The alignment was originally located within a few hundred metres of the Greer Creek Recreation Site. The crossing point was moved downstream of the Recreation Site after the interests of users and private landholders were considered. <p>Further measures will serve as guidelines for post construction mitigation to avoid visual intrusion of artificial elements into the viewshed surrounding the recreation site. All measures listed under Stellako River apply, with the following additions:</p> <ul style="list-style-type: none"> • Develop site-specific measures and designs to soften visual effects where facilities breach the natural ridgelines of the Nechako River valley from a river-level vantage point; and <p>Brewster Lake Recreation Site:</p> <p>The following mitigation measures relating to lakes surrounded by areas with High scenic value and few disturbances will soften Potential Effects:</p> <ul style="list-style-type: none"> • Maintain transmission line outside of the viewsheds of the Brewster Lake Recreation Site; • Locate facilities away from and not adjacent to prominent landscape features where they might interrupt a natural line or edge; and • Communicate and integrate activities with resource managers currently managing the viewscape. <p>Tatelkuz Lake Southeast Recreation Reserve; Dykam Ranch and Tatelkus Lake IR28:</p>	<p>The duration will be long-term throughout operations and closure at the Stellako River Crossing Point. The frequency is intermittent within the viewshed of the structure. Effects will be reversible once the transmission line is removed. A Not Significant (Moderate) effect on visual resources was assigned given these circumstances.</p> <p>The duration will be long-term throughout operations and closure at the Cheslatta Trail. Frequency is intermittent within the viewshed of the structure. Effects will be reversible once the transmission line is removed. The visual effect of the transmission line on the Cheslatta Trail crossing point is considered Not Significant (Minor), in consideration of the zoning objectives of the region and the recreational and importance and heritage value of the Cheslatta Trail.</p> <p>At the Nechako River Valley site, the duration will be long-term throughout operations and closure. Frequency is intermittent within the viewshed of the structure. Effects will be reversible once the transmission line is removed. The visual effect of the transmission line on the Nechako River crossing point is considered Not Significant (Moderate), in consideration of the zoning objectives of the region and the recreational importance of the Nechako River Canoe Trail.</p> <p>Potential views of the transmission line may occur near the Nechako Range, but will be constrained by distance. Magnitude is therefore, Low with a Local geographic context. Duration will be Long-term throughout operations and closure. Frequency is Intermittent due to the screening effect of vegetation cover. Effects will be Reversible once the transmission line is removed. The significance determination is Not Significant (Minor).</p> <p>At the Tatelkuz Lake sites, the geographic extent is considered local as line of sight falls within the mine site LSA. Frequency will be frequent with a chronic duration, as the Project facilities used in the viewshed analyses will not be removed. There are mitigation options available to minimize colour/contrast effects. Although distant, due to the physical size of the prominent mine site facilities; the visual effect of the mine site from these vantage points is assigned Not Significant (Moderate).</p>

BLACKWATER GOLD PROJECT

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ENVIRONMENTAL ASSESSMENT CERTIFICATE /
ENVIRONMENTAL IMPACT STATEMENT
ASSESSMENT OF POTENTIAL SOCIAL EFFECTS



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		<p>Mitigation measures recommended in the Visual Resources Management Plan (VRMP) can moderate effects on residents and users at Tatelkus Lake IR 28, Dykam Ranch, and the Tatelkuz Lake Southeast Recreation Reserve. Measures for the management of artificial light include:</p> <ul style="list-style-type: none"> • <i>Need:</i> Limit artificial light to the minimum required. Design the site so that security lights are unnecessary. Where they are necessary, extinguish security lights except when activated by motion detectors; • <i>Direction:</i> All light should be directed only where it is needed, and any light escaping into other directions should be eliminated; • <i>Intensity:</i> Lights should only be as bright as required for the specific operational need; • <i>Duration:</i> Artificial lighting should only be used when required, reducing the effects of artificial light through automated timers and motion detectors; and • <i>Spectrum:</i> Avoid using full spectrum light, which has blue and ultraviolet wavelengths that are more damaging to wildlife and insects. <p>Measures to mitigate colour/contrast issues:</p> <ul style="list-style-type: none"> • Re-vegetate with native vegetation and establish a composition consistent with the surrounding undisturbed landscape where necessary, when construction is within approximate line of sight of a known view point; • Select and design materials to repeat and blend with landscape elements; • Avoid installing gravel and pavement where possible to reduce color and texture contrasts with existing landscape; and • Use non-reflective or low-reflective coatings to blend with the Project's backdrop. 	

Note: ⁽¹⁾ Project phases: C = construction; CL = closure; O = operations; PC = post-closure