

BLACKWATER GOLD PROJECT: SUMMARY OF PROPOSED MITIGATION MEASURES (NOVEMBER 6, 2018)

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|------------|------------------------------------|--------|--|
| 1.0 | Noise and Vibration | | |
| | Change in ambient noise levels | C, O | <ul style="list-style-type: none"> • Select equipment with industry standard noise abatement technology (e.g., brakes, exhaust, sound hoods, mufflers, jackhammer jackets) • Minimize the height of material drops from the plant and machinery • House the pebble crusher and grinding circuits in insulated structures, and position equipment in sheltered or enclosed locations, to the extent possible • Locate construction and operations camps to minimize noise disturbance from road and air traffic, and mine equipment • Conduct regular vehicle and equipment inspections to check noise abatement devices • Turn off equipment when not in use, to the extent possible • Implement 60 km/hr speed limit on Project-controlled roads • Operate and maintain equipment within specifications and capacities, and to relevant standards and guidelines (e.g., Environment Canada's Environmental Code of Practice for Metal Mines) to the extent possible¹ • Adhere to Part 8 (Explosives) of the Health, Safety and Reclamation Code for Mines in British Columbia (BC MEM 2017)² • Use smaller aircraft (e.g., Dash 8-100) instead of larger aircraft whenever possible • Avoid low altitude flights except on final approach and take-off • Limit flights to daylight hours • Limit taxing time • Use low noise equipment (e.g., generator with muffler) • Develop and implement a Noise Management Plan (draft plan provided in Section 12.2.1.18.4.20 of the Application/EIS) prior to commencement of Construction, and consult with Indigenous groups and relevant government agencies on the plan • Develop and implement a noise complaint response and resolution process |
| 2.0 | Climate Change | | |
| | Change in atmospheric levels (GHG) | C, O | <ul style="list-style-type: none"> • Use buses and/or airplanes, instead of personal transportation, to transport workers to the mine site during Construction and Operations to reduce emissions • Use low sulphur fuel for off-road vehicles (e.g., mine fleet) in compliance with the Off-Road Compression-Ignition Engine Emission Regulations (SOR/2005-32)³ • Operate and maintain emission control equipment as per manufacturers requirements (e.g., refuse incinerator) • Manage vehicle and equipment emissions by conducting regular vehicle, machinery and equipment maintenance, restricting speeds, sizing of equipment and reducing idling • Implement an Air Quality and Emissions Management Plan (AQEMP; draft plan provided in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage fugitive dust |
| 3.0 | Air Quality | | |

¹ Environment Canada. 2009. *Environmental Code of Practice for Metal Mines*. Environment Canada. <https://www.ec.gc.ca/lcpe-cepa/documents/codes/mm/mm-eng.pdf>

² BC MEM. 2017. *Health, Safety and Reclamation Code of British Columbia*. British Columbia Ministry of Energy and Mines. http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/health-and-safety/code-review/health_safety_and_reclamation_code_2017.pdf

³ Off-Road Compression-Ignition Engine Emission Regulations, SOR/2005-32. <http://canlii.ca/t/lfgk>

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| | Change in ambient air quality | C, O | <ul style="list-style-type: none"> • Manage fugitive dust during Construction and Operations through measures such as speed limits on Project-controlled gravel roads, wetting unpaved roads, revegetation of disturbed areas and/or using other materials, use of appropriately aggregate for road surfaces with low silt content, and progressive reclamation of disturbed areas as soon as possible during Operations, Closure and Post-closure • Implement an AQEMP (draft plan provided in Section 12.2.1.18.4.9 provided in the Application/EIS), including measures to manage fugitive dust such as revegetation of disturbed areas, a follow-up monitoring program to confirm air quality and air dispersion model predictions and to determine the effectiveness of any mitigation measures with regard to air issues, and consult Indigenous groups and relevant government authorities on the draft plan • Operate and maintain emission control equipment as per manufacturers requirements (e.g., refuse incinerator) • Manage vehicle and equipment emissions by conducting regular vehicle, machinery and equipment maintenance, restricting speeds, sizing of equipment and reducing idling • Use low sulphur fuel for off-road vehicles (e.g., mine fleet) in compliance with the Off-Road Compression-Ignition Engine Emission Regulations (SOR/2005-32)³ |
| 4.0 | Surface Water Quantity | | |
| 4.1 | Change to surface water flows (Davidson Creek, Creek 661, Creek 705 and Chedakuz Creek watersheds) | C, O, CL, PC | <ul style="list-style-type: none"> • Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment • Construct the Northern and Southern diversions during the Construction phase to supplement the Freshwater Supply System (FWSS) (i.e., Tatelkuz Lake water) to mitigate changes in flows in Davidson Creek and Chedakuz Creek, downstream of Tatelkuz Lake, and provide flexibility in apportionment of flow to Davidson Creek during Operations, Closure and Post-Closure • Construct and operate the pit water treatment plant during Operations to provide flexibility to minimize surplus water accumulation in the tailings storage facility (TSF) and apportion flow to Davidson Creek • Source process water from site contact water sources during Operations to reduce water withdrawal from Tatelkuz Lake and associated flow reduction in Chedakuz Creek • Flood open pit with TSF supernatant water and ECD flows during Closure to reduce water withdrawal from Tatelkuz Lake and associated flow reduction in Chedakuz Creek • Pump water from Tatelkuz Lake to meet Davidson Creek instream flow needs (IFN) until the end of Closure • Discharge treated pit water to Davidson Creek to reduce water withdrawal from Tatelkuz Lake during years 5-14 • Implement seepage control at TSF dams and pit lake • Construct the TSF D spillway in Year 10 to intercept additional unrecoverable seepage from the TSF to Davidson Creek and Creek 661, if monitoring determines there is unrecoverable seepage that needs to be captured • Implement a Mine Water Management Plan (draft plan provided in Section 12.2.1.18.4.18 of the Application/EIS), including plans for operation of the TSF, seepage monitoring plans and adaptive management plans and on-site water management • Adhere to the Environmental Code of Practice for Metal Mines (Environment Canada 2009), to the extent possible¹ |
| 4.2 | Change to Tatelkuz Lake levels | O, CL | <ul style="list-style-type: none"> • Minimize withdrawals from Tatelkuz Lake by maximizing on-site water recycling and reuse (e.g., sourcing process water from site contact water sources) and diverting non-contact water around the TSF to Davidson Creek |
| 5.0 | Surface Water Quality | | |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|---|---|---|---|
| 5.1 | Change in anions, nutrients, total and dissolved metal concentrations in Davidson Creek (nitrate, antimony dissolved aluminum and total zinc) | O (nitrate and dissolved aluminum) PC (antimony, dissolved aluminum, total zinc) | <ul style="list-style-type: none"> • Use conventional SO₂/air treatment for cyanide destruction of tailings during Operations, prior to deposition in the TSF • Treat run-off and seepage from the low grade ore (LGO) stockpile during Operations, if monitoring determines necessary to meet permit conditions • Backfill the LGO in the pit if the LGO stockpile is not processed by the end of mill operations • Construct the TSF D spillway in Year 10 to intercept additional unrecoverable seepage from the TSF to Davidson Creek and Creek 661, if monitoring determines there is unrecoverable seepage that needs to be captured • Locate fuel storage and refuelling activities outside riparian areas • Active water treatment to treat low grade ore stockpile runoff, tailings, open pit surface and groundwater during Operations • Active water treatment to treat TSF supernatant and water treatment brine during Closure • Active water treatment to treat open pit water; water reporting to ECD, and TSF water and brine during Post-Closure • Implement a Mine Waste Management Plan (draft plan provided in Section 12.2.1.18.4.17 of the Application/EIS), including plan for prediction, monitoring, prevention and mitigation of metal leaching/acid rock drainage and management strategies for waste rock, tailings and LGO • Implement a Mine Water Management Plan (draft plan provided in Section. 12.2.1.18.4.18 of the Application/EIS), including plan for on-site water management • Follow the Environmental Code of Practice for Metal Mines to the extent possible and the International Cyanide Management Code (ICMC) • Implement an AQEMP (see draft plan in Section 12.2.1.18.4.9), including measures to manage fugitive dust |
| 5.2 | Change in total and dissolved metal concentrations in Creek 661 (dissolved aluminum, total chromium, total copper and total zinc) | O (dissolved aluminum, total chromium, total copper, total zinc) PC (dissolved aluminum, total zinc) | <ul style="list-style-type: none"> • Construct the TSF D spillway in Year 10 to intercept additional unrecoverable seepage from the TSF to Davidson Creek and Creek 661, if monitoring determines there is unrecoverable seepage that needs to be captured • Install pit lake seepage collection system to intercept seepage from the open pit lake to Creek 661 if monitoring determines there is unrecoverable seepage that needs to be captured during Post-closure • Implement a Mine Waste Management Plan (draft plan provided in Section 12.2.1.18.4.17 of the Application/EIS), including plan for prediction, monitoring, prevention and mitigation of metal leaching/acid rock drainage and management strategies for waste rock, tailings and LGO • Implement a Mine Water Management Plan (draft plan provided in Section 12.2.1.18.4.18 of the Application/EIS), including plan for on-site water management |
| 5.3 | Change in total and dissolved metal concentrations in Chedakuz Creek (dissolved aluminum) | PC(dissolved aluminum) | <ul style="list-style-type: none"> • Treat open pit water, including pit sumps and perimeter wells, during Operations for dissolved metals before discharge to Davidson Creek, if monitoring determines necessary to meet permit conditions • Treat for sulphate, ammonia and dissolved metals before discharge to Davidson Creek during Post-closure, if monitoring determines necessary to meet permit conditions • Implement a Mine Waste Management Plan (draft plan provided in Section 12.2.1.18.4.17 of the Application/EIS), including plan for prediction, monitoring, prevention and mitigation of metal leaching/acid rock drainage and management strategies for waste rock, tailings and LGO • Implement a Mine Water Management Plan (draft plan provided in Section. 12.2.1.18.4.18 of the Application/EIS), including plan for on-site water management |
| 5.4 | Change in total suspended solids and turbidity | C, O, CL | <ul style="list-style-type: none"> • Implement a Sediment and Erosion Control Plan (SECP; draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion control measures (e.g., diversion and runoff collection ditches, sediment control ponds, revegetation of disturbed areas and use of flocculants) • Adhere to BC Ministry of Environment (BC MOE) Technical Guidance 7: Assessing the Design, Size, and Operation of Sediment Ponds used in Mining (2015)⁴ |
| 6.0 Sediment Quality | | | |
| | Change to sediment quality due to changes in surface water quality | O, CL, PC | <ul style="list-style-type: none"> • Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion and sediment control measures (e.g., diversion and runoff collection ditches, sediment control ponds, revegetation of disturbed areas and use of flocculants) • Adhere to BC MOE Technical Guidance 7: Assessing the Design, Size, and Operation of Sediment Ponds used in Mining (2015)⁴ • Implement a Mine Water Management Plan (draft plan provided in Section 12.2.1.18.4.18 of the Application/EIS) including plan for on-site water management |
| 7.0 Groundwater Quality and Quantity | | | |
| 7.1 | Change to groundwater quantity | O, CL, PC | <ul style="list-style-type: none"> • Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment |

⁴ BC MOE. 2015. *Technical Guidance 7: Assessing the Design, Size, and Operation of Sediment Ponds used in Mining*. British Columbia Ministry of the Environment. http://www2.gov.bc.ca/assets/gov/environment/waste-management/industrial-waste/industrial-waste/mining-smelt-energy/assessing_design_size_and_operation_of_sediment_ponds.pdf

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| 7.2 | Change to groundwater quality | O, CL, PC | <ul style="list-style-type: none"> Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment Implement a Mine Water Management Plan (draft plan provided in Section 12.2.1.18.4.18 of the Application/EIS), including plans for seepage collection from the TSF and open pit |
| 8.0 | Wetlands (Indicators: ecological, hydrological, biochemical and habitat functions) | | |
| | Loss of wetland extent/degradation of wetland function | C, O, CL, PC | <ul style="list-style-type: none"> Design linear features to avoid wetlands to the extent possible Maintain existing drainage connections when designing and installing culverts for cross drainage, and avoid creating outlets that either drain wetlands or constrict the natural outlet during construction, where possible Use low ground pressure equipment or tracked equipment for work in areas with saturated soils during Construction, to the extent possible Use timber mats, driving mats, or log corduroys or other means of ground protection where needed to minimize disturbances to vegetation and reduce rutting during construction Adhere to Fisheries and Oceans Canada's (DFO's) Guidance on Measures to Avoid Causing Harm to Fish and Fish Habitat (DFO 2013)⁵, Approved Work Practices for Managing Riparian Vegetation (BC Hydro et al. 2003)⁶ Implement applicable best management practices identified in Wetland Ways: Interim Guidelines for Wetland Protection and Conservation in British Columbia (Cox and Cullington 2009)⁷, Riparian Management Area Guidebook (BC MOF 1995)⁸, and Forested Wetlands-Functions, Benefits, and the Use of Best Management Practices (Welsch et al. 1995)⁹ Prior to construction, install sediment controls, including silt fences and containment structures, prior to and maintain them during construction activities Protect natural drainages and watercourses by constructing appropriate on-site sediment control devices (such as collection and diversion ditches, sediment traps, sediment ponds) and use of flocculants Place soil salvage stockpiles in locations where they will have no impact on natural drainages Locate fuel storage and refuelling activities outside riparian areas Direct all surface runoff from plant site grading, open pit development, TSF construction and waste rock storage area development to the TSF basin Control metal leaching by separating contact and non-contact surface water through diversion dams and collection trenches; and Collect all (except minimal) TSF seepage downstream of the TSF D Dam during operations and post-closure Implement a Wetlands Management Plan (draft plan provided in Section 12.2.1.18.4.3 of the Application/EIS), including definition of wetland buffer zones and wetlands monitoring plan Where possible, a 30 metre vegetation buffer will be used to protect wetland functions Implement a Wetland Compensation Plan (WCP; draft plan provided in Appendix 5.3.7A) pursuant to the Federal Policy on Wetland Conservation, (Government of Canada 1991)¹⁰, including on-site compensation (creation of wetlands within TSF) and off-site compensation |
| 9.0 | Fish (Indicators: rainbow trout and kokanee) | | |

⁵ DFO. 2013. *Measures to Avoid Causing Harm to Fish and Fish Habitat*. Fisheries and Oceans Canada. <http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/index-eng.html>

⁶ BC Hydro. 2003. *Approved Work Practices for Managing Riparian Vegetation, Guide to Incorporating Riparian Environmental Concerns into the Protocol Agreement for Work In and Around Water*. BC Hydro and Power Authority. https://www.bchydro.com/content/dam/hydro/medialib/internet/documents/bctc_documents/work_practices_riparian.pdf

⁷ Cox and Cullington. 2009. *Wetland Ways: Interim Guidelines for Wetland Protection and Conservation in British Columbia*. Wetland Stewardship Program. <http://www.env.gov.bc.ca/wld/BMP/bmpintro.html> and <http://www.env.gov.bc.ca/wld/documents/bmp/wetlandways2009/Wetland%20Ways%20Ch%201%20Introduction.pdf>

⁸ BC MOF. 1995. *Riparian Management Area Guidebook*. British Columbia Ministry of Forests, Forest Practices Code: Victoria, BC.

⁹ Welsch, D.J., Smart, D.L., Boyer, J.N., Minken, P., Smith, H.C. and McCandless, T.L., 1995. *Forested Wetlands: Functions, Benefits and the Use of Best Management Practices*.

¹⁰ Government of Canada. 1991. *The Federal Policy on Wetland Conservation*. Ottawa, Ontario, Published by Authority of the Minister of Environment, 15 pp. <http://publications.gc.ca/collections/Collection/CW66-116-1991E.pdf>

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|-----|---|--------------------------|---|
| 9.1 | Loss of fish in upper Davidson Creek and Creek 661 headwaters | C, O, CL, PC (mine site) | <ul style="list-style-type: none"> Where instream construction is required, isolate work areas and complete fish salvage and relocation as detailed in a Fish Salvage Plan Conduct instream construction during the lowest risk timing window for rainbow trout (15 July to 15 April of the following year) to avoid interruptions to spawning migrations and egg mortalities, to the extent possible¹¹ Implement a Fisheries Mitigation and Offsetting Plan, as approved by Fisheries and Oceans Canada, to offset effects to fish, including offsetting measures and a monitoring plan Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion control measures (e.g., ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats and use of flocculants) Implement an Aquatic Resources Management Plan (draft plan in Section 12.2.1.18.4.1 of the Application/EIS), including identification of lowest risk timing windows, and measures related to handling of hydrocarbons, site re-vegetation and bridge and riparian area maintenance Adhere to DFO <i>Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters</i> (D.G. Wright and G.E. Hopky (1998))¹² |
| 9.2 | Disruption of salmonid homing to Davidson Creek | O, CL | <ul style="list-style-type: none"> Minimize disturbance to the Davidson Creek watershed downstream of the mine site, to minimize changes to natural run off and flow to Davidson Creek Construct the Northern and Southern diversions during the Construction phase to supplement the FWSS (i.e., Tatelkuz Lake water) to mitigate changes in flows, and provide flexibility in apportionment of flow to Davidson Creek |
| 9.3 | Mobilization of mercury in Lake 01682LNRS | C, O, CL, PC | <ul style="list-style-type: none"> Strip vegetation and topsoil material above the existing high water line and up to the expected high water line in the enlarged Lake 01682LNRS, except in areas where vegetation and topsoil material are retained as part of fisheries offsetting or other habitat restoration initiatives Monitor sediment quality in Lake 01682LNRS |
| 9.4 | Change in water temperature in Davidson Creek | C, O, CL, PC | <ul style="list-style-type: none"> During the Construction phase, allow for the FWSS to discharge directly to Davidson Creek or a surface discharge from the freshwater reservoir (FWR), in addition to low level outlet in the FWR, until Post-closure Construct the Northern and Southern diversions during the Construction phase to supplement the FWSS (i.e., Tatelkuz Lake water), to provide for better alignment of Davidson Creek temperatures with baseline conditions and temperature requirements of fish species in Davidson Creek Install and operate a temperature and flow control system (TFCS) supported by a monitoring and adaptive management strategy to inform the operation of the TFCS Prior to FWSS operation, locate the Tatelkuz Lake intake at an appropriate depth in Tatelkuz Lake, and install end of pipe fish screens as required by DFO (1995)¹³ |
| 9.5 | Reduction of littoral fish habitat of Tatelkuz Lake or change in water surface elevation of Tatelkuz Lake | O, CL, PC | <ul style="list-style-type: none"> Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment Minimize withdrawals from Tatelkuz Lake by maximizing on-site water recycling and reuse (e.g., sourcing process water from site contact water sources), diverting non-contact water around the TSF to Davidson Creek and implementing an adaptive management strategy for instream flow needs in Davidson Creek Utilise seasonal and/or life stage specific instream flow requirements to derive pumping volumes from Tatelkuz Lake to minimize withdrawals to what is necessary to meet the instream flow need in Davidson Creek Prior to the commissioning of the FWSS, undertake studies on fish habitat in Tatelkuz Lake, and monitor fish habitat quantity and quality in the littoral zone in mid-summer Consult with Indigenous groups on the Aquatic Effects Monitoring Plan, which would include the fish habitat studies referenced above, and incorporate culturally relevant biomagnification indicators |

¹¹ BC MOE. 2004. *Reduced Risk Timing Windows and Measures for the Conservation of Fish and Fish Habitat for the Omineca Region*. http://www.env.gov.bc.ca/omineca/documents/fpc_omineca_twm_final_may04.pdf

¹² DFO.1998. *Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters*. <http://www.dfo-mpo.gc.ca/Library/232046.pdf>

¹³ DFO. 1995. *Freshwater Intake End-of-Pipe Fish Screen Guideline*. Fisheries and Oceans Canada. <http://www.dfo-mpo.gc.ca/library/223669.pdf>

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| 9.6 | Change in aquatic health due to changes in surface water quality in Davidson Creek and Creek 661 | C, O, CL, PC | <ul style="list-style-type: none"> Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment Minimize disturbance to the Davidson Creek watershed downstream of the mine site, to minimize changes to natural run off and flow to Davidson Creek Locate fuel storage and refuelling activities outside riparian areas Construct the Northern and Southern diversions during the Construction phase to supplement the FWSS (i.e., Tatelkuz Lake water) to mitigate changes in flows, and provide flexibility in apportionment of flow to Davidson Creek Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including measures to control erosion (e.g., diversion and runoff collection ditches, sediment control ponds, and use of flocculants) Implement an AQEMP (see draft plan in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage fugitive dust |
| 9.7 | Change in nutrients in Davidson Creek, Creek 661, Chedakuz Creek | C, O, CL, PC | <ul style="list-style-type: none"> Implement an AQEMP (see draft plan in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage fugitive dust Implement a Hazardous Materials Management Plan (draft plan provided in Section 12.2.1.18.4.12 of the Application/EIS), including measures to manage explosives use Locate fuel storage and refuelling activities outside riparian areas Adhere to DFO <i>Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters</i> (D.G. Wright and G.E. Hopky (1998))¹³ |
| 10.0 | Fish Habitat (Indicators: rainbow trout and kokanee) | | |
| 10.1 | Loss of fish habitat (Rainbow trout) | C, O, CL, PC | <ul style="list-style-type: none"> Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment Implement a Fisheries Mitigation and Offsetting Plan , as approved by DFO, to offset effects to fish habitat, including offsetting measures and monitoring plan |
| 10.2 | Change in surface water flow | C, O, CL, PC | <ul style="list-style-type: none"> Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment Minimize disturbance to the Davidson Creek watershed downstream of the mine site, to minimize changes to natural run off and flow to Davidson Creek Construct the Northern and Southern diversions during the Construction phase to supplement the FWSS (i.e., Tatelkuz Lake water) to mitigate changes in flows, and provide flexibility in apportionment of flow to Davidson Creek Minimize withdrawals from Tatelkuz Lake by maximizing on-site water recycling and reuse (e.g., sourcing process water from site contact water sources), diverting non-contact water around the TSF to Davidson Creek and implementing an adaptive management strategy for instream flow needs in Davidson Creek Construct a fish passage barrier in Davidson Creek, at the mine access road, and in Creek 505659 upstream of Creek 661 within the area included in the Fisheries and Mitigation Offsetting Plan |
| 10.3 | Mobilization of mercury in Lake 01682LNRS | C, O, CL, PC | <ul style="list-style-type: none"> Strip vegetation and topsoil material above the existing high water line and up to the expected high water line in the enlarged Lake 01682LNRS, except in areas where vegetation and topsoil material are retained as part of fisheries offsetting or other habitat restoration initiatives |
| 10.4 | Change in water temperature in Davidson Creek | C, O, CL, PC | <ul style="list-style-type: none"> During Construction, allow for the FWSS to discharge directly to Davidson Creek or a surface discharge from the FWR, in addition to low level outlet in the FWR, until Post-closure when the open pit lake is allowed to discharge to Davidson Creek Construct the Northern and Southern diversions during the construction phase to provide for better alignment of Davidson Creek temperatures with baseline conditions and temperature requirements of fish species in Davidson Creek Install and operate a temperature and flow control system (TFCS) supported by a monitoring and adaptive management strategy to inform the operation of the TFCS Locate the Tatelkuz Lake FWSS intake at an appropriate depth in Tatelkuz Lake, and install end of pipe fish screens as required by DFO (1995)¹⁴ |
| 10.5 | Reduction in littoral fish habitat of Tatelkuz Lake change in water surface elevation of Tatelkuz Lake | O, CL | <ul style="list-style-type: none"> Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment and reduce flow impacts to Creek 661 and Tatelkuz lake further downstream Minimize withdrawals from Tatelkuz Lake by maximizing on-site water recycling and reuse (e.g., sourcing process water from site contact water sources), diverting non-contact water around the TSF to Davidson Creek and implementing an adaptive management strategy for instream flow needs in Davidson Creek Utilise seasonal and/or life stage specific instream flow requirements to derive pumping volumes from Tatelkuz Lake, supporting the minimizing of withdrawals to what is necessary to meet the instream flow need in Davidson Creek |

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| 10.6 | Change in aquatic health due to changes in surface water quality in Davidson Creek and Creek 661 | C, O, CL, PC | <ul style="list-style-type: none"> Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance in the Creek 661 catchment and reduce flow impacts to Creek 661 and Tatalkuz Lake further downstream Construct the Northern and Southern diversions during the Construction phase to provide flexibility in apportionment of flow to Davidson Creek during Operations, Closure and Post-closure Locate fuel storage and refuelling activities outside riparian areas Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion control measures (e.g., diversion and runoff collection ditches, sediment control ponds and use of flocculants) |
| 10.7 | Change in nutrients in Davidson Creek, Chedakuz Creek and Creek 661 | C, O, CL, PC | <ul style="list-style-type: none"> Implement an AQEMP (draft plan in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage fugitive dust Implement a Hazardous Materials Management Plan (draft plan provided in Section 12.2.1.18.4.12 of the Application/EIS), including measures to minimize residual explosives products Adhere to DFO Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (D.G. Wright and G.E. Hopky 1998)¹³ |
| 11.0 | Physiography and Topography | | |
| | Alteration of baseline landscape | C, O, CL, PC | <ul style="list-style-type: none"> Remove the East Dump and associated water management infrastructure (e.g., sediment pond, and diversion and collection ditches located in Creek 661 watershed) to reduce mine disturbance Implement a Reclamation and Closure Plan (RCP: draft plan provided in Section 2.6 of the Application/EIS), including integration of mine features into the Post-closure landscape Minimize roads constructed on-site to reduce mine disturbance |
| 11.2 | Terrain stability and accelerated erosion | C, O, CL, PC | <ul style="list-style-type: none"> Avoid hazardous terrain, to the extent possible Implement a Landscape, Soils, and Vegetation Management and Restoration Plan (LSVMRP; draft plan provided in Section 12.2.1.18.4.4 of the Application/EIS), including measures to mitigate adverse effects on landscape stability (e.g., slope gradients along road cuts and disturbed areas to gradients are or below the angle of repose of those disturbed areas, and using drainage control measures and water passage structures (e.g., culverts) to manage surface water run-off, where appropriate) Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats, and use of flocculants) Implement a RCP (draft plan provided in Section 2.6 of the Application/EIS), including seeding and progressive reclamation of exposed slopes to improve slope stability Minimize roads constructed on-site to reduce mine disturbance |
| 12.0 | Surficial Geology and Soil Cover | | |
| 12.1 | Removal and relocation of overburden material | C, O, CL | <ul style="list-style-type: none"> Implement a RCP (draft plan provided in Section 2.6 of the Application/EIS), including a plan for salvaging and stockpiling topsoil Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats and use of flocculants) |
| 12.2 | Soil disturbance | C, O | |
| 12.3 | Soil re-distribution | PC | |
| 13.0 | Soil Quality | | |
| 13.1 | Soil contamination due to spills, leaks | C, O, CL, PC | <ul style="list-style-type: none"> Implement an Emergency and Spill Preparedness Response Plan (draft plan provided in Section 12.2.1.18.4.13 of the Application/EIS), including response, containment and clean-up plans Implement an AQEMP (see draft plan in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage vehicle emissions and dust Implement a preventative maintenance program for equipment Utilize secondary containment where appropriate Implement a Hazardous Materials Management Plan (HMMP; S draft plan provided in Section 12.2.1.18.4.12 of the Application/EIS), including measures for transporting, storing and disposing of hazardous materials |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
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| 13.2 | Alteration and loss of soil due to terrain stability and accelerated erosion | C, O, CL, PC | <ul style="list-style-type: none"> Minimize the mine site footprint and avoid hazardous terrain Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including identification of erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats and use of flocculants) Salvage soil in accordance with the RCP (draft plan provided in Section 2.6 of the Application/EIS) |
| 13.3 | Soil contamination due to dust deposition | C, O, CL | <ul style="list-style-type: none"> Implement an AQEMP (draft plan provided in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage vehicle emissions and dust |
| 13.4 | Chemical and physical alteration due to soil disturbance | C, O | <ul style="list-style-type: none"> Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including identification of erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, revegetation of disturbed areas, erosion control mats and use of flocculants) Implement a RCP (draft plan provided in Section 2.6 of the Application/EIS), including soil management plan |
| 13.5 | Physical alteration due to soil re-distribution | CL | <ul style="list-style-type: none"> Implement a RCP (draft plan provided in Section 2.6 of the Application/EIS), including plans for progressive reclamation |
| 14.0 | Ecosystem Composition (Indicators: ecosystem distribution, riparian areas, old growth forest, sparsely vegetated ecosystems, traditional use plants habitat) | | |
| 14.1 | Loss of ecosystems (ecosystem distribution, riparian ecosystems, old growth forest, traditional use plant habitat) | C, O, CL, PC | <ul style="list-style-type: none"> Avoid riparian areas and old growth forests where possible Use existing roads and cleared areas where possible, and maximize the use of existing areas of disturbance Identify no-work and management work zones (with restrictions, such as no heavy machinery, etc.) and setbacks in accordance with best management practices (BC MFLNRO, 2014) where feasible Implement construction best management practices to mitigate for altered hydrology (e.g., installing appropriate culverts where required, and maintaining functioning water tables and drainage throughout all phases) Follow <i>Approved Work Practices for Managing Riparian Vegetation</i> (BC Hydro 2003)⁶ for work in and around water Implement a RCP (draft plan provided in Section 2.6 of the Application/EIS), including plans for progressive reclamation and reforestation Implement a SECP (Section 12.2.1.18.4.1 of the Application/EIS), including identification of erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats and use of flocculants) Implement an AQEMP to manage fugitive dust (Section 12.2.1.18.4.9 of the Application/EIS), and invasive species proliferation (Invasive Species Management Plan (ISMP)(draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS), and include traditional use plants in reclamation prescriptions (RCP; Section 2.6 of the Application/EIS) |
| 14.2 | Nitrogen deposition (ecosystem distribution, riparian ecosystems, traditional use plant habitat) | C, O | <ul style="list-style-type: none"> Implement an AQEMP (draft plan provided in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage fugitive dust and Transportation and Access Management Plan (TAMP; draft plan provided in Section 12.2.1.18.4.14 of the Application/EIS), including measures to speed limits on Project-controlled roads |
| 14.3 | Spread of invasive plants (ecosystem distribution, riparian ecosystems, traditional use plant habitat) | C, O, CL, PC | <ul style="list-style-type: none"> Minimize disturbing areas outside or adjacent to areas targeted for clearing (e.g., machinery and equipment movement, or extent of grubbing and stripping) Clean earth moving vehicles prior to entering the mine site Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including measures for erosion and sediment control Implement the LSVMRP and ISMP (draft plans provided in Section 12.2.1.18.4.4 and 12.2.1.18.4.5 of the Application/EIS), including measures to manage plant species at risk and reduce the introduction and spread of invasive species, and replanting procedures Implement a RCP (draft plan provided in Section 2.6 of the Application/EIS), including use of weed-free seed for reclamation |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
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| 15.0 | Plant Species and Ecosystems and Risk (Indicators: whitebark pine, plant species at risk habitat, ecosystems at risk) | | |
| 15.1 | Loss of ecosystems (whitebark pine, plant species at risk habitat and ecosystems at risk) | C, O, CL, PC | <ul style="list-style-type: none"> • Avoid grubbing, stripping, and removal of shrubs and herbaceous species in areas requiring clearing to retain the topsoil and vegetation root mat, to the extent possible • Flag or otherwise identify clearing limits as appropriate • Provide orientation to workers on whitebark pine identification to minimize the disturbance to whitebark pine • Prior to Construction, develop fire management plans, including consideration of whitebark pine on Mt Davidson in suppression planning, and provision of information to the Wildfire Management Branch on whitebark pine distribution to help inform suppression efforts • Implement a Whitebark Pine Management Plan (refer to measures identified in draft plan provided in Section 12.2.1.18.4.4.9 of the Application/EIS), including cone collection and seedling propagation, and depending on the results and success of reclamation trials, enhancing stands on the mine site to improve conditions for whitebark pine survival and recruitment, and using whitebark pine seedlings for mine site reclamation • Implement an ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS), including measures to reduce the introduction and spread of invasive plant species • Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats, and use of flocculants) |
| 15.2 | Nitrogen deposition (whitebark pine and plant species at risk habitat) | C, O | <ul style="list-style-type: none"> • Implement an AQEMP (draft plan provided in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage fugitive dust and TAMP (draft plan provided in Section 12.2.1.18.4.14 of the Application/EIS), including measures to implement speed limits on Project-controlled roads |
| 15.3 | Reduced ability for whitebark pine to regenerate (whitebark pine) | C, O, CL, PC | <ul style="list-style-type: none"> • Provide orientation to workers on whitebark pine identification as part of overall mine site orientation • Implement a Whitebark Pine Management Plan (refer to measures identified in draft plan provided in Section 12.2.1.18.4.4.9 of the Application/EIS) including cone collection and seedling propagation, and depending on the results and success of reclamation trials, enhancing stands on the mine site to improve conditions for whitebark pine survival and recruitment, and using whitebark pine seedlings for mine site reclamation |
| 16.0 | Wildlife (Indicators: Caribou, amphibians [western toad], forest and grassland birds [olive-sided flycatcher, Clark's nutcracker, red-tailed hawk, short-eared owl, interior forest habitat barn and bank swallow, black swift], furbearers [marten, beaver, fisher, wolverine], invertebrates [Jutta arctic, American emerald], moose and waterbirds [ring-necked duck, yellow rail, Wilson's snipe, greater yellow legs, horned grebe]) | | |
| 16.1 | Habitat loss and alteration | C, O for amphibians (mine site, mine site access road, FWSS, airstrip, Kluskus FSR) C, O, CL, PC for amphibians (transmission line) | <p><u>Amphibians</u></p> <ul style="list-style-type: none"> • Locate the transmission line in disturbed areas where possible • Locate project components away from wetlands and riparian areas • Use existing roads and follow existing linear disturbances and cleared areas to support transmission line construction • Identify no-work and management work zones (with restrictions such as no heavy machinery, etc.) and setbacks in accordance with best management practices (BC MLFNRO 2014)¹⁴, to the extent possible • Restrict clearing of terrestrial amphibian breeding habitats to periods outside of the amphibian breeding season (1 April to 30 September) as per ECCC guidance, or conduct pre-construction and pre-clearing surveys and amphibian salvage if clearing is required during the breeding season. If salvage is required, adhere to the <i>Best Management Practices for Amphibian and Reptile Salvages in British Columbia</i> (BC MFLNRO 2016)¹⁵ • Implement a Wildlife Management Plan (WLMP; draft plan provided in Section 12.2.1.18.4.612 of the Application/EIS), including measures to reduce sensory disturbance • Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS) including erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats and use of flocculants) • Implement a LSVMRP (draft plans provided in Section 12.2.1.18.4.4 of the Application/EIS), ISMP (draft plan in Section 12.2.1.18.4.5 of the Application/EIS), and RCP (draft plan in Section 2.6 of the Application/EIS), including progressive reclamation using local native vegetation, wherever possible, or appropriate commercially grown, weed-free native species • If amphibian use of the TSF is observed during periods when water quality poses a mortality risk, New Gold will consult with regulators and First Nations on appropriate mitigations to exclude amphibians from the area until water quality has sufficiently improved |

¹⁴ BC FLNRO. 2014. *Guidelines and Best Management Practices (BMPs)*. <http://www.env.gov.bc.ca/wld/BMP/bmpintro.html> (accessed March 13, 2017)

¹⁵ BC MFLNRO. 2016. *Best Management Practices for Amphibian and Reptile Salvages in British Columbia*. BC Ministry of Forests, Lands and Natural Resource Operations. <http://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?sessionId=YcLRYHmL1NTTvfJpwwPSBjFSrQh2rWnphcWBwGZT3mN8QRhlnVX!1900646311?subdocumentId=10351> (accessed March 13, 2017)

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|------|---|--|---|
| 16.2 | Habitat loss and alteration (<i>cont'd</i>) | C, O, CL, PC for bats and grizzly bear | <p><u>Bats</u></p> <ul style="list-style-type: none"> • Minimize the mine site footprint and avoid large scale clearing of old-growth forest to the extent possible • Adhere to <i>Best Management Practices Guidelines for Bats in British Columbia</i> (Holroyd, S.L. and V.J Craig, 2016)¹⁶ • Monitor and protect roost and hibernacula by: conducting pre-construction surveys in the mine site to identify /confirm potential roost and hibernacula features; maintaining an inventory of wildlife trees, snags, buildings, mines, rocky outcrops and cliff/cave features that may function as potential roost and hibernacula features to inform potential mitigation measures; conducting surveys to confirm whether they are used and by which species; applying appropriate mitigation measures if roosts or hibernacula are detected at the mine site and avoidance is not possible • Timing windows used for vegetation clearing will be based on local information of the timing of roosting/ rearing versus hibernation. • Prior to construction, conduct pre-clearing surveys to identify wildlife trees (snags) and any bat roosting habitats in the transmission line right of way. Should roosts be observed, artificial roosts will be installed in consultation with province of British Columbia bat experts and based on provincial guidance in MOE 2016 <i>Best Management Practices for Bats in British Columbia</i>, Chapter 2: Mine Developments and Inactive Mine Habitats. • Identify no-work and management work zones (with restrictions, such as no heavy machinery, etc.) and setbacks in accordance with best management practices (BC MFLNRO, 2014) where feasible • Minimize sensory disturbance due to noise in areas adjacent to the mine site and airstrip, including use of noise abatement technology, equipment placement, regular equipment maintenance, and enforcement of speed limits • Minimize light disturbance in areas adjacent to the mine site by limiting the use of outside artificial lighting to areas where necessary for safe operation of the Project, including directional lighting and lighting that is activated by motion detector(s) to the extent possible <p><u>Grizzly Bears</u></p> <ul style="list-style-type: none"> • Locate the transmission line in disturbed areas where possible • Use existing roads and follow existing linear disturbances to support transmission line construction • Use helicopters to support transmission line construction in steep areas, where safe and practicable • Conducting pre-clearing surveys to identify grizzly bear activity within potential denning habitat during sensitive periods as described in the WLMP • Avoid clearing and development of berry and kokanee areas, to the extent possible • Minimize the mine site footprint and avoid large scale clearing of old-growth forest and riparian areas, to the extent possible • Minimize sensory disturbance due to noise and light in areas adjacent to the mine site and airstrip, including the use of noise abatement technology, equipment placement, regular equipment maintenance, and enforcement of speed limits • Implement invasive plant management techniques, as described in the ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS) • Restore disturbed habitats at mine closure or develop habitats capable of supporting grizzly bears as described in the RCP (Section 2.6 of the Application/EIS) and WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) and avoid using species that attract bears • Implement no hunting (including no trapping) and no firearms policies for Project employees and contractors while resident on the mine site as described in the WLMP (Section 12.2.1.18.4.6 of the Application/EIS) • Participate in grizzly bear regional wildlife and resource management initiatives in Wildlife Management Units (WMUs) 6-01 and 7-12 where appropriate |

¹⁶ Holroyd, S.L. and V.J Craig. 2016. *Best Management Practices Guidelines for Bats in British Columbia, Chapter 2: Mine Developments and Inactive Mine Habitats*. BC Ministry of Environment, Victoria, BC. 60pp.

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
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| 16.3 | | C, O, CL, PC for caribou, forest and grassland birds, furbearers, invertebrates, moose and waterbirds | <p><u>Caribou</u></p> <ul style="list-style-type: none"> • Minimize the mine site footprint and avoid large scale clearing of old-growth forest, riparian stands and lichen-rich stands where possible • Decommission and restore the existing exploration access road and Mt. Davidson exploration road during the Construction phase • Prior to the commencement of construction, conduct caribou aerial surveys, and subsequently every five years until the end of mine operations, and provide survey results to First Nations and relevant government authorities • Construct the mine access road to the mine site to avoid ungulate winter range (HE-1-001 Mt. Davidson) • If a mineral lick is identified during pre-construction surveys, or during construction or operations, engage with FLNRO and First Nations to identify appropriate mitigation measures to minimize impacts to the mineral lick • Minimize sensory disturbance due to noise and light, including directional lighting and lighting that is activated by motion detector(s) to the extent possible, noise abatement technology, equipment placement, regular equipment maintenance, and enforcement of speed limits • Schedule project activities to take into account the caribou "least risk window" (as defined by Ungulate Winter Range Order (UWR) 7-01-012), where practicable. In the event caribou are observed in the area of the mine site, work may be stopped until the caribou leave the area • As part of the Caribou Mitigation and Monitoring Plan (CMMP), implement a Caribou Offsetting Plan, including land securement and restoration • Establish an Environmental Monitoring Board to monitor project-related effects and make recommendations related to adaptive management • Implement invasive plant management techniques as defined in the ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS), including developing and implementing detailed construction and operational plans of invasive plant prevention and detection strategies, and an action protocol if invasive plants are detected • Implement measures to manage fugitive dust as defined in the AQEMP (draft plan provided in Section 12.2.1.18.4.9 of the Application/EIS), such as: <ul style="list-style-type: none"> ○ Maintenance of unpaved roads which will be regularly compacted and kept in good repair ○ Use of coarse aggregate for road surfaces with low silt content ○ Roadways will be wetted to minimize dust from ore and waste rock haulage and grading, when ambient air temperatures permit ○ Cleaning of paved areas as required to minimize dust ○ Wetting of materials to minimize dust in material handling, as needed ○ Reporting incidents involving excessive dust on site and implementing adaptive management • Implement progressive reclamation using local native vegetation wherever possible or appropriate commercially grown, weed-free native species pursuant to the RCP (Section 2.6 of the Application/EIS) • Restore disturbed habitats at mine closure or develop appropriate habitats capable of supporting caribou and other wildlife, as per the Recovery Strategy for Woodland Caribou, Southern Mountain Population (<i>Rangifer tarandus caribou</i>) in Canada (ECCC 2014)¹⁷ and/or the provincial <i>Draft Caribou Recovery Program</i> and/or the Tweedsmuir Herd Plan when it becomes available • Support non-habitat based tools for caribou recovery identified in the provincial <i>Draft Caribou Recovery Program</i> and/or the Tweedsmuir Herd Plan when it becomes available |

¹⁷ Environment Canada. 2014. Recovery Strategy for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada [Proposed]. *Species at Risk Act Recovery Strategy Series*. Environment Canada, Ottawa. viii + 68 pp.

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|------|--------------------------------|---|---|
| 16.4 | Habitat loss and alteration | C, O, CL, PC for caribou, forest and grassland birds, furbearers, invertebrates, moose and waterbirds | <p><u>Forest and Grassland Birds</u></p> <ul style="list-style-type: none"> Locate project components away from wetlands Minimize the mine site footprint and avoid large scale clearing of old-growth forest and riparian areas to the extent possible Avoid vegetation clearing during bird breeding windows. If clearing required during breeding bird window, conduct point surveys and/or other survey techniques consistent with ECCC guidance (<i>Avoidance of Detrimental Effects to Migratory Birds (Incidental Take)</i>, <i>Avoidance Guidelines: General Nesting Periods of Migratory Birds in Canada</i>. 2016, and <i>Avoidance of Detrimental Effects to Migratory Birds (Incidental Take)</i>, <i>Avoidance Guidelines: Technical Information</i>. 2016) and RISC/RIC standards. These pre-clearing surveys will consider the specific habitat requirements and survey protocols for listed species at risk, including rusty blackbird, olive-sided flycatcher, barn swallow, bank swallow, black swift, and common nighthawk. Minimize sensory disturbance due to noise and light to areas adjacent to the mine area and airstrip, including directional lighting and lighting that is activated by motion detector(s) to the extent possible, noise abatement technology, equipment placement, regular equipment maintenance, and enforcement of speed limits on Project-controlled roads Where possible, retain and enhance forest edge habitat along road areas to provide escape or thermal cover for passerines (or birds) Retain coarse woody debris where appropriate for microshelter habitat for birds Implement an AQEMP (draft plan provided in Section 12.2.1.18.4.912 of the Application/EIS), including measures to manage fugitive dust Develop and implement a Whitebark Pine Management Plan (draft plan provided in Section 12.2.1.18.4.4.9 of the Application/EIS), including cone collection and seedling propagation, and depending on the results and success of reclamation trials, enhancing stands on the mine site to improve conditions for whitebark pine survival and recruitment, and using whitebark pine seedlings for mine site reclamation Implement progressive reclamation using local native vegetation wherever possible or appropriate commercially grown, weed-free native species, including use of conifers and whitebark pine in suitable sites, pursuant to the LSVMRP (draft plan provided in Section 12.2.1.18.4.4 of the Application/EIS), and RCP (draft plan in Section 2.6 of the Application/EIS), Implement invasive plant management techniques as defined in the ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS), including developing and implementing detailed construction and operational plans of invasive plant prevention and detection strategies, and an action protocol to be used if invasive plants are detected Monitor for Clark's nutcracker, and integrate the results into adaptive management measures as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6) <p><u>Raptors</u></p> <ul style="list-style-type: none"> Avoid vegetation clearing during bird breeding windows. If clearing required during breeding bird window, conduct point surveys and/or other survey techniques consistent with ECCC guidance (<i>Avoidance of Detrimental Effects to Migratory Birds (Incidental Take)</i>, <i>Avoidance Guidelines: General Nesting Periods of Migratory Birds in Canada</i>. 2016, and <i>Avoidance of Detrimental Effects to Migratory Birds (Incidental Take)</i>, <i>Avoidance Guidelines: Technical Information</i>. 2016) and RISC/RIC standards. These pre-clearing surveys will consider the specific habitat requirements and survey protocols for listed species at risk, including short-eared owl. |

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| 16.5 | Habitat loss and alteration (<i>cont'd</i>) | C, O, CL, PC for caribou, forest and grassland birds, furbearers, invertebrates, moose and waterbirds <i>(cont'd)</i> | <p><u>Furbearers</u></p> <ul style="list-style-type: none"> • Minimize the mine site footprint and avoid large scale clearing of old-growth forest and riparian areas where possible • Locate the transmission line in existing disturbed areas where possible • Use existing roads and follow existing linear disturbances to support transmission line construction • Use helicopters to support transmission line construction in steep areas, where safe and practicable • After initial clearing, maintain vegetation along the transmission line right of way to minimize predator sight lines by maintaining limits of approach and the height of the plant community at no lower than three feet from the ground on an average basis, except where an area is needed for tower bases, guy anchor points and along access roads • Conduct pre-clearing surveys during the denning period (March – April) to identify and avoid potential dens of marten and fisher. If a den is located, establish a 50 metre setback around the den. • Designate well demarcated no-work zones and management work zones (with restrictions, such as no heavy machinery, etc.) and setbacks in areas adjacent to riparian wildlife habitats in accordance with best management practices (BC FLNRO 2014) where feasible • Deploy berms, woody debris, and/or other visual barriers in appropriate locations along the transmission line that may also facilitate cover and movement for furbearers • Minimize sensory disturbance due to noise and light in areas adjacent to the mine site and airstrip, including use of noise abatement technology, equipment placement, regular equipment maintenance, and enforcement of speed limits • Implement a LSVMRP (draft plan provided in Section 12.2.1.18.4.4 of the Application/EIS), including minimizing ground disturbance and damage to vegetation • Implement invasive plant management techniques as defined in the ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS), including developing and implementing detailed construction and operational plans of invasive plant prevention and detection strategies, and an action protocol to be used if invasive plants are detected • Implement no hunting (including no trapping) and no firearms policies for Project employees and contractors while resident on the mine site as described in the WLMP (Section 12.2.1.18.4.6 of the Application/EIS) • Implement progressive reclamation using local native vegetation wherever possible or appropriate commercially grown, weed-free native species pursuant to the RCP (draft plan provided in Section 2.6 of the Application/EIS) • Restore disturbed habitats or develop appropriate habitats capable of supporting furbearers pursuant to the RCP (draft plan provided in Section 2.6 of the Application/EIS) <p><u>Invertebrates</u></p> <ul style="list-style-type: none"> • Locate facilities and topsoil piles within the mine site area away from wetlands, and/or minimize ground disturbance footprint • Minimize clearance of black spruce forest and maintaining hydrological regimes of wetlands near infrastructure • Implement an LSVMRP (draft plan provided in Section 12.2.1.18.4.4 of the Application/EIS), including progressive reclamation using local native vegetation wherever possible, or appropriate commercially grown, weed-free native species • Implement fugitive dust control measures as described in the AQEMP (draft plan provided in Section 12.2.1.18.4.9 of the Application/EIS), including watering roads and avoiding use of road salts to improve invertebrate habitat suitability • Implement progressive reclamation using local native vegetation wherever possible or appropriate commercially grown, weed-free native species pursuant to the RCP (Section 2.6 of the Application/EIS) <p><u>Moose</u></p> <ul style="list-style-type: none"> • Locate the transmission line in existing disturbed areas where possible • Use existing roads and follow existing linear disturbances to support transmission line construction • Use helicopters to support transmission line construction in steep areas along the alignment • After initial clearing, maintain vegetation along the transmission line right of way to minimize predator sight lines by maintaining limits of approach and the height of the plant community at no lower than three feet from the ground on an average basis, except where an area is needed for tower bases, guy anchor points and along access roads • Participate in moose regional wildlife and resource management initiatives in WMUs 6-01 and 7-12 where appropriate • Minimize ground disturbance and damage to vegetation in areas adjacent to footprints by flagging sensitive habitats, as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) • Minimize sensory disturbance due to noise and light, including directional lighting and lighting that is activated by motion detectors, noise abatement technology, equipment placement, regular equipment maintenance, and enforcement of speed limits • If a mineral lick is identified during pre-construction surveys or during construction or operations, engage with FLNRORD and First Nations to identify appropriate mitigation measures to minimize impacts to the mineral lick • Conduct moose aerial surveys prior to the commencement of Construction, and subsequently every five years until the end of mine operations |
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| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|-----|--------------------------------|--------|---|
| | | | <ul style="list-style-type: none"> • Implement no hunting (including no trapping), no gathering and no firearms policies for Project employees and contractors residing on the mine site, as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) • Implement invasive management measures as described in the ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS) • Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats, and use of flocculants) • Implement an AQEMP (draft plan provided in Section 12.2.1.18.4.9) along Project-controlled roads, including watering roads and avoiding use of salt on Project-controlled roads • Implement a WMP (draft plan provided in Section 12.2.1.18.4.3 of the Application/EIS) and WCP (Appendix 5.3.7A of the Application/EIS) • Install road signs to alert drivers of speed limits and of wildlife use areas along Project-controlled roads • Implement invasive plant management techniques as defined in the ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS), including developing and implementing detailed construction and operational plans of invasive plant prevention and detection strategies, and an action protocol to be used if invasive plants are detected • Restore disturbed habitats at mine closure or develop habitats capable of supporting moose pursuant to the RCP (Section 2.6 of the Application/EIS) |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
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| 16.6 | Habitat loss and alteration (<i>cont'd</i>) | C, O, CL, PC for caribou, forest and grassland birds, furbearers, invertebrates, moose and waterbirds (Note: No interaction of transmission line with caribou) (<i>cont'd</i>) | <p><u>Waterbirds</u></p> <ul style="list-style-type: none"> • Locate Project components away from wetland and riparian areas • Designate well demarcated no-work zones and management work zones (with restrictions, such as no heavy machinery, etc.) and setbacks in areas adjacent to riparian wildlife habitats in accordance with best management practices (BC FLNRO 2014) where feasible • Avoid vegetation clearing during bird breeding windows. If clearing required during breeding bird window, conduct point surveys and/or other survey techniques consistent with ECCC guidance (<i>Avoidance of Detrimental Effects to Migratory Birds (Incidental Take)</i>, <i>Avoidance Guidelines: General Nesting Periods of Migratory Birds in Canada</i>. 2016, and <i>Avoidance of Detrimental Effects to Migratory Birds (Incidental Take)</i>, <i>Avoidance Guidelines: Technical Information</i>. 2016) and RISC/RIC standards. These pre-clearing surveys will consider the specific habitat requirements and survey protocols for listed species at risk, including horned grebe and yellow rail. • Implement a SECP (draft plan provided in Section 12.2.1.18.4.1), including erosion identification of erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats, and use of flocculants) • Implement no hunting (including no trapping) and no firearms policy for Project employees and contractors while resident at the mine site as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6) • Implement invasive plant management techniques as defined in the ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS) • Minimize sensory disturbance due to noise and light to areas adjacent to the mine area and airstrip, including directional lighting and lighting that is activated by motion detector(s) to the extent possible, noise abatement technology, equipment placement, regular equipment maintenance, and enforcement of speed limits • Implement a Wetland Compensation Plan (Appendix 5.3.7A of the Application/EIS) • Restore disturbed habitats and develop habitats capable of supporting waterbirds where possible, pursuant to the RCP |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
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| 16.7 | Mortality risk | C, O, CL, PC for bats, caribou, grizzly bear, invertebrates | <p><u>Bats</u></p> <ul style="list-style-type: none"> Adhere to federal guidance to prevent the spread of white nose syndrome, as outlined in <i>Western Canada White Nose Syndrome Transmission Prevention</i> (CWHC 2015) Monitor and protect roost and hibernacula by: conducting pre-construction surveys in the mine site to identify/confirm potential roost and hibernacula features; maintaining an inventory of wildlife trees, snags, buildings, mines, rocky outcrops and cliff/cave features that may function as potential roost and hibernacula features to inform potential mitigation measures; conducting surveys to confirm whether they are used and by which species; applying appropriate mitigation measures if roosts or hibernacula are detected at the mine site and avoidance is not possible Locate roads and transmission line poles away from wetland and riparian areas, to the extent possible Minimize sensory disturbance due to noise and light at the mine site and airstrip, including use of noise abatement technology, equipment placement, and regular equipment maintenance <p><u>Caribou</u></p> <ul style="list-style-type: none"> Decommission and restore the existing exploration access road and Mt. Davidson exploration road during the Construction phase Collaborate with FLNRORD and First Nations on appropriate site treatment options to provide habitat features for security of caribou and to foster habitats not suitable for alternate prey species. Examples include placing woody debris on the surface of upland slopes (e.g., waste rock pile), and scarifying and replanting surfaces. Implement adaptive management to manage alternate prey habitat, wolf access or other similar measures, as described in the WLMP (draft plan provided in Section 12.2.1.4.18.6 of the Application/EIS). Prior to the commencement of construction, conduct caribou aerial surveys, and subsequently every five years until the end of mine operations, and provide survey results to First Nations and relevant government authorities After initial clearing, maintain vegetation along the transmission line right of way to minimize predator sight lines by maintaining limits of approach and height of plant community at no lower than three feet from the ground on an average basis, except where an area is needed for tower bases, guy anchor points and along access roads During the early years of Operations, deactivate and decommission access roads that are constructed to support transmission line construction to limit predator movements and vision along the line Schedule Project activities to take into account the caribou "least risk window" (as defined by UWR Order 7-01-012), where practicable. In the event caribou are observed in the area of the mine site, work may be stopped until the caribou leave the area Develop an Access Management Plan and establish an Access Management Working Group to reduce potential for predators and hunters to gain new access to caribou habitat Implement no hunting (including no trapping) and no firearms policies for Project employees and contractors while resident at the mine site as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) Implement caribou awareness and response protocols for mine personnel during mine safety and environmental orientations Enforce speed limits and post signs to identify areas of high wildlife activity along Project-controlled roads Implement best management practices for road surface maintenance (including dust suppression measures) to allow good vehicle line of sight and control to reduce potential collisions with wildlife Minimize attraction of wildlife to roadsides using adaptive management measures, such as avoiding the use of road salts, removing carrion, and selection of appropriate revegetation species along Project-controlled access roads Restrict and control road access to the mine site, as described in the TAMP (draft plan provided in Section 12.2.1.18.4.14) Restore disturbed habitats at mine closure or develop appropriate habitats capable of supporting caribou and other wildlife, as per the Recovery Strategy for Woodland Caribou, Southern Mountain Population (<i>Rangifer tarandus caribou</i>) in Canada (ECCC 2014)¹⁸ and/or the provincial <i>Draft Caribou Recovery Program</i> and/or the Tweedsmuir Herd Plan when it becomes available Support non-habitat based tools for caribou recovery identified in the provincial <i>Draft Caribou Recovery Program</i> and/or the Tweedsmuir Herd Plan when it becomes available |

¹⁸ Environment Canada. 2014. Recovery Strategy for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada [Proposed]. *Species at Risk Act Recovery Strategy Series*. Environment Canada, Ottawa. viii + 68 pp.

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|------|-------------------------------------|---|--|
| 16.8 | Mortality risk (<i>cont'd</i>) | C, O, CL, PC for bats, caribou, grizzly bear, invertebrates | <p><u>Grizzly Bear</u></p> <ul style="list-style-type: none"> • Conduct pre-clearing surveys to identify and avoid potential denning habitat as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6) • Report and document wildlife observations and incidents/ accidents along Project-controlled access roads • Minimize attraction of wildlife to roadsides using adaptive management measures, such as avoiding the use of road salts, removing carrion, and selection of appropriate revegetation species along Project-controlled access roads, pursuant to the WLMP (draft plan provided in Section 12.2.1.18.4.6) • Implement best management practices for road surface maintenance (including dust suppression measures) to allow good vehicle line of sight and control to reduce potential collisions with wildlife • Post signs along Project-controlled roads, warning drivers of the possibility of wildlife encounters in areas of high wildlife activity • Enforce speed limits along Project-controlled roads • Implement the WLMP (Section 12.2.1.18.4.6), including a Bear Awareness Program • Implement the TAMP (draft plan provided in Section 12.2.1.18.4.14) • Implement Industrial and Domestic Waste Management Plan (draft plan provided in Section 12.2.1.18.4.11) • Select re-vegetation species that minimize attraction of wildlife to roadsides, and remove carrion along Project-controlled access roads as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6) • Implement no hunting, no feeding and no wildlife harassment policies for Project employees and contractors residing at the mine site <p><u>Invertebrates</u></p> <ul style="list-style-type: none"> • Implement an ISMP (draft plan provided in Section 12.2.1.18.4.5), including invasive plant management • Implement fugitive dust management measures along Project-controlled roads, as described in the AQEMP (draft plan provided in Section 12.2.1.18.4.9), including watering roads and avoiding use of road salts |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|------|--------------------------------|---|--|
| 16.9 | | C, O, CL, PC for amphibians, furbearers, moose and waterbirds | <p><u>Amphibians</u></p> <ul style="list-style-type: none"> • Implement a WLMP (draft plan in Section 12.2.1.18.4.6), including adhering to Guidelines for Amphibian and Reptile Conservation during Urban Rural Land Development in British Columbia (BC MFLRNO 2014) • Implement fugitive dust management measures along Project-controlled roads, as described in the AQEMP (draft plan provided in Section 12.2.1.18.4.9) • Post signs along Project-controlled roads to identify amphibian crossings in areas of high wildlife activity, such as potential toad crossings near breeding sites, to the extent possible • Conduct pre-clearing and pre-construction surveys, and if required, salvage amphibians prior to Construction or temporary loss of wetlands during the active period (extends April 1 to September 30) • Where safe and practicable, implement adaptive management measures to deter water birds and amphibians from the TSF and pit lake waters • Implement a salvage plan that identifies relocation sites and outlines salvage operations prior to Construction during breeding season in potential Western toad habitat <p><u>Furbearers</u></p> <ul style="list-style-type: none"> • After initial clearing, maintain vegetation along the transmission line right of way to minimize predator sight lines by maintaining limits of approach and the height of the plant community at no lower than three feet from the ground on an average basis, except where an area is needed for tower bases, guy anchor points and along access roads • During early years of operations, deactivate and decommission access roads that are constructed to support line construction to limit predator movements and vision along the line • Deploy berms, woody debris, and/or other visual barriers in appropriate locations along the line that may also facilitate cover and movement for furbearers • Include wildlife awareness information in regular safety and environmental inductions performed by the mine • Control access to the mine site and manage speed limits on Project-controlled roads as described in the TAMP (draft plan provided in Section 12.2.1.18.4.14 of the Application/EIS) • Implement no hunting (including no trapping) and no firearms policies for Project employees and contractors while resident at the mine site as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) • Select re-vegetation species that minimize attraction of wildlife to roadsides, and remove carrion along Project-controlled access roads as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) <p><u>Moose</u></p> <ul style="list-style-type: none"> • After initial clearing, maintain vegetation along the transmission line right of way to maintain limits of approach and maintain plant community at no lower than three feet from the ground on an average basis, except where an area is needed for tower bases, guy anchor points and along access roads • During early years of operations, deactivate and decommission access roads that are constructed to support line construction to limit predator movements and vision along the line • Conduct moose aerial surveys prior to the commencement of construction, and subsequently every five years until the end of mine operations • If a mineral lick is identified during pre-construction surveys or during construction or operations, engage with FLNRO and First Nations to identify appropriate mitigation measures to minimize impacts to the mineral lick • Include wildlife awareness information in regular mine safety and environmental orientations • Install road signs to alert drivers of speed limits and of wildlife use areas along Project-controlled roads • Implement best management practices for road surface maintenance (including dust suppression measures) to allow good vehicle line of sight and control to reduce potential collisions with wildlife • Report and document wildlife observations and incidents/accidents along Project-controlled access roads • Implement a no hunting (including no trapping) and no firearms policy for Project employees and contractors while resident at the mine site as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) • Participate in moose regional wildlife and resource management initiatives in WMUs 6-01 and 7-12 |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|-------|--------------------------------|---|--|
| 16.10 | Mortality risk (cont'd) | C, O, CL, PC for amphibians, furbearers, moose and waterbirds (cont'd) | <p><u>Waterbirds</u></p> <ul style="list-style-type: none"> • Locate project components away from wetland areas and riparian areas to the extent possible • Deploy markers on the shield wires on the transmission line and phase conductors on distribution lines • Avoid vegetation clearing during bird breeding windows as per ECCC guidance (<i>Avoidance of Detrimental Effects to Migratory Birds (Incidental Take)</i>, <i>Avoidance Guidelines: General Nesting Periods of Migratory Birds in Canada</i>. 2016, and <i>Avoidance of Detrimental Effects to Migratory Birds (Incidental Take)</i>, <i>Avoidance Guidelines: Technical Information</i>. 2016). Pursuant to ECCC guidance and RIC/RISC, undertake pre-construction surveys where appropriate. These pre-clearing surveys will consider the specific habitat requirements and survey protocols for listed species at risk, including horned grebe and yellow rail. • Where safe and practicable, implement adaptive management measures to deter water birds and amphibians from the TSF and pit lake • Minimize sensory disturbance due to noise and light, including use of directional lighting and lights that are activated by motion detector(s) to the extent possible • Enforce speed limits along Project-controlled roads • Implement a WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS), including adaptive management measures for the TSF and open pit waters, as required, monitoring program for the transmission line (monitor and investigate bird mortality) and implement adaptive measures to reduce further mortality • Implement no hunting (including no trapping) and no firearms policies for Project employees and contractors while resident at the mine site as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) |
| 16.11 | Change to movement patterns | C, O, CL, PC for amphibians | <ul style="list-style-type: none"> • Follow best management practices as described in the <i>Guidelines for Amphibian and Reptile Conservation during Urban Rural Land Development in British Columbia</i> (BC MFLRNO 2014)¹⁹ where applicable • Post signs along Project-controlled roads to identify amphibian crossings in areas of high wildlife activity, such as potential toad crossings near breeding sites, to the extent possible • Conduct pre-clearing and pre-construction surveys in areas with high probability of occurrence, and if required, salvage amphibians prior to Construction or temporary loss of wetlands during the active period (extends April 1 to September 30) • Implement a salvage plan that identifies relocation sites and outlines salvage operations prior to Construction during breeding season in potential Western toad habitat • Implement a WLMP (draft plan provided in Section 12.2.1.18.4 of the Application/EIS) |
| | | C, O, CL, PC for moose | <ul style="list-style-type: none"> • Participate in moose provincial regional initiatives related in WMUs 6-01 and 7-12 where appropriate • Enforce speed limits and post signs along Project-controlled roads to identify moose sensitive areas such as migration routes and seasonal feeding areas • Implement best management practices for road surface maintenance to allow good vehicle line of sight and control to reduce potential collisions with moose • Minimize attraction of wildlife to roadsides using adaptive management measures, such as avoiding the use of road salts, removing carrion, and selection of appropriate revegetation species along Project-controlled access roads, pursuant to the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) • Minimize sensory disturbance due to noise and light, including use of noise abatement technology, equipment placement, and regular equipment maintenance • Select re-vegetation species that minimize attraction of wildlife to roadsides to reduce potential for vehicle collisions and predation as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) • Record wildlife observations on Project-controlled roads • Include wildlife awareness information in regular mine safety and environmental inductions |

¹⁹ BC FLNRO. 2014. *Guidelines for Amphibian and Reptile Conservation during Urban Rural Land Development in British Columbia*. Available online at: http://www.env.gov.bc.ca/wld/documents/bmp/HerptileBMP_complete.pdf

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|-------|--------------------------------|---------------------------------------|---|
| 16.12 | Changes to population dynamics | C, O, CL for caribou | <ul style="list-style-type: none"> Decommission and restore the existing exploration access road during the Construction phase After initial clearing, maintain vegetation along the transmission line right of way to minimize predator sight lines by maintaining limits of approach and the height of the plant community at no lower than three feet from the ground on an average basis, except where an area is needed for tower bases, guy anchor points and along access roads During the early years of Operations, deactivate and decommission access roads that are constructed to support transmission line construction to limit predator movements and vision along the line Place natural cover such as rock piles and woody debris piles in open areas to reduce predator efficiency and create temporary visual cover for caribou pursuant to the RCP (draft plan provided in Section 2.6 of the Application/EIS) Prior to the commencement of construction, conduct caribou aerial surveys, and subsequently every five years until the end of mine operations, and provide survey results to First Nations and relevant government authorities Place woody debris on the surface of upland slopes and between rocks and along the slopes, parallel and perpendicular with the slopes, to provide habitat features for security of caribou and to foster habitats not suitable for alternate prey species Implement adaptive management to manage alternate prey habitat, wolf access or other similar measures, as described in the WLMP (draft plan provided in Section 12.2.1.4.18.6 of the Application/EIS) Restore disturbed habitats at mine closure or develop appropriate habitats capable of supporting caribou and other wildlife, as per the Recovery Strategy for Woodland Caribou, Southern Mountain Population (<i>Rangifer tarandus caribou</i>) in Canada (ECCC 2014)²⁰ and/or the provincial <i>Draft Caribou Recovery Program</i> and/or the Tweedsmuir Herd Plan when it becomes available Support non-habitat based tools for caribou recovery identified in the provincial <i>Draft Caribou Recovery Program</i> and/or the Tweedsmuir Herd Plan when it becomes available |
| | | C, O, CL, PC for moose and waterbirds | <p><u>Moose</u></p> <ul style="list-style-type: none"> After initial clearing, maintain vegetation along the transmission line right of way to minimize predator sight lines by maintaining limits of approach and the height of the plant community at no lower than three feet from the ground on an average basis, except where an area is needed for tower bases, guy anchor points and along access roads During early years of operations, deactivate and decommission access roads that are constructed to support line construction to limit predator movements and vision along the line Remove carrion along Project-controlled roads to reduce the risk of attracting predator species, as described in the WLMP (draft plan in Section 12.2.1.4.18.6 of the Application/EIS); and Implement adaptive management to manage alternate prey habitat, wolf access or other similar measures, as described in the WLMP (draft plan provided in Section 12.2.1.4.18.6 of the Application/EIS). <p><u>Waterbirds</u></p> <ul style="list-style-type: none"> Locate Project components away from wetland areas and riparian areas to the extent possible Identify no-work and management work zones (with restrictions such as no heavy machinery), and setbacks in accordance with best management practices (BC MFLNRO 2016)²⁰ to the extent possible Implement an ISMP (draft plan provided in Section 12.2.1.18.4.5 of the Application/EIS), including invasive plant management techniques Restore disturbed habitats during mine closure or develop habitats capable of supporting waterbirds pursuant to the RCP (draft plan provided in Section 2.6) Compensate for impacts to wetlands as described in the WMP (draft plan provided in Section 12.2.18.4.3 of the Application/EIS) and WCP (draft plan provided in Appendix 5.3.7A), pursuant to the Federal Policy on Wetland Conservation (Government of Canada 1991)²¹ |
| 16.13 | Changes to invertebrate health | C, O, CL for invertebrates | <ul style="list-style-type: none"> Implement a SECP (draft plan provided in Section 12.2.1.18.4.1 of the Application/EIS), including erosion control measures (e.g., proper ditching, reducing slopes and placement of soil salvage piles, diversion and runoff collection ditches, sediment control ponds, erosion control mats, and use of flocculants) Implement fugitive dust management measures along Project-controlled roads, as described in the AQEMP (draft plan provided in Section 12.2.1.18.4.9), including watering roads and minimize attraction of wildlife to roadsides and improve invertebrate habitat suitability |

²⁰ Environment Canada. 2014. Recovery Strategy for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada [Proposed]. *Species at Risk Act Recovery Strategy Series*. Environment Canada, Ottawa. viii + 68 pp.

²¹ Government of Canada. 1991. *The Federal Policy on Wetland Conservation*. Ottawa, Ontario, Published by Authority of the Minister of Environment, 15 pp. Available online: <http://publications.gc.ca/collections/Collection/CW66-116-1991E.pdf> (accessed March 9, 2017)

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|-------------|---|--------------|---|
| 16.14 | Changes to amphibian health due to changes in surface water quality in Davidson Creek and Creek 661 | C, O, CL, PC | <ul style="list-style-type: none"> Implement a WLMP (draft plan in Section 12.2.1.18.4.6 of the Application/EIS), including best management practices to reduce potential dust contamination of amphibian habitats Implement a Hazardous Materials Management Plan (draft plan provided in Section 12.2.1.18.4.12 of the Application/EIS), including explosives use Implement an AQEMP (draft plan in Section 12.2.1.18.4.9 of the Application/EIS) to manage fugitive dust |
| 17.0 | Provincial Economy and Government Revenues | | |
| | Loss of employment | CL | <ul style="list-style-type: none"> Prior to scheduled mine closure, develop an integrated closure plan to help employees transition to new employment |
| 18.0 | Regional and Local Employment and Business | | |
| | Loss of employment | CL | <ul style="list-style-type: none"> Prior to scheduled mine closure, develop an integrated closure plan to help employees transition to new employment Develop and implement a Socio-economic Effects Monitoring Plan (SEEMP) to manage socio-economic effects related to the Project, including identification of roles and responsibilities of project personnel and contractors, an implementation schedule, public feedback process, monitoring plan, and a process for adaptive management |
| 19.0 | Regional and Local Government Finances | | |
| | Loss of employment | CL | <ul style="list-style-type: none"> Prior to scheduled mine closure, develop an integrated closure plan to help employees transition to new employment Develop and implement a SEEMP to manage socio-economic effects related to the Project, including identification of roles and responsibilities of project personnel and contractors, an implementation schedule, public feedback process, monitoring plan, and a process for adaptive management |
| 20.0 | Demographics | | |
| | Changes to population in the Socio-economic Regional Study Area | C, O, CL | <ul style="list-style-type: none"> Develop and implement a SEEMP to manage socio-economic effects related to the Project, including identification of roles and responsibilities of project personnel and contractors, an implementation schedule, public feedback process, monitoring plan, and a process for adaptive management Provide incentives for employees to relocate to the SERSA, where appropriate, and encourage the Project management team to reside in the SERSA Use the airstrip to transport temporary construction workers residing outside of the SERSA House workforce in camps during construction and operations while on shift |
| 21.0 | Regional and Community Infrastructure | | |
| | Increase in demand for housing, utilities, recreation and leisure services | C, O | <ul style="list-style-type: none"> Provide data related to the Project workforce and operations to the province (to the extent that this data can be provided without violating applicable law), and participate in provincial initiatives to monitor potential cumulative socio-economic impacts in the region Implement a SEEMP to manage socio-economic effects, including identification of roles and responsibilities of project personnel and contractors, an implementation schedule, public feedback process, monitoring plan, and a process for adaptive management Continue to liaise with the Community Liaison Committee (CLC) over the life of the Project to identify, monitor and discuss measures to mitigate Project effects related to service provision, housing, and health and social services House workforce in camps during Construction and Operations while on shift Use the airstrip to transport temporary construction workers residing outside of the SERSA Use buses or alternatives to personal transportation to transport workers to the mine site during Construction and Operations to reduce potential for traffic accidents |
| 22.0 | Family and Community Well-being | | |
| 22.1 | Increase in economic hardship due to loss of employment | CL | <ul style="list-style-type: none"> Prior to scheduled mine closure, develop an integrated closure plan to help employees transition to new employment |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
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| 22.2 | Increase in socially disruptive behaviours | C, O | <ul style="list-style-type: none"> Continue to liaise with the CLC over the mine life to identify, monitor and discuss measures to mitigate Project effects related to service provision, housing, and health and social services House workforce in camps during Construction and Operations while on shift Implement a SEEMP to manage socio-economic effects related to the Project, including identification of roles and responsibilities of Project personnel and contractors, an implementation schedule, public feedback process, monitoring plan, and a process for adaptive management |
| 22.3 | Deterioration in family relationships | C, O | <ul style="list-style-type: none"> Continue to liaise with the CLC over the mine life to identify, monitor and discuss measures to mitigate Project effects related to service provision, housing, and health and social services Implement a SEEMP to manage socio-economic effects related to the Project, including identification of roles and responsibilities of Project personnel and contractors, an implementation schedule, public feedback process, monitoring plan, and a process for adaptive management Implement a Health and Medical Services Plan that is consistent with the <i>Health and Medical Services Best Management Guide for Industrial Camps</i> (Northern Health Authority, March 2015)²² including identification of: on-site health and medical services to be implemented to meet the Project's workforce's urgent and non-urgent health care needs; disease and infection prevention and outbreak protocols; health promotion, disease prevention and worker wellness program information; a process for communication, coordination and collaboration with the NHA and other local health service providers (including patient care/transfer, data collection and reporting), and an adaptive management plan |
| 23.0 | Regional Services | | |
| | Increase in demand on education, health, protective and health services | C, O, CL | <ul style="list-style-type: none"> Continue to liaise with the CLC over the life of the Project to identify, monitor and discuss measures to project effects related to service provision, housing, and health and social services Develop and implement a SEEMP to manage socio-economic effects related to the Project, including identification of roles and responsibilities of project personnel and contractors, an implementation schedule, monitoring plan, and a process for adaptive management Implement a Health and Medical Services Plan that is consistent with the <i>Health and Medical Services Best Management Guide for Industrial Camps</i> (Northern Health Authority, March 2015)²³ including identification of: on-site health and medical services to be implemented to meet the Project's workforce's urgent and non-urgent health care needs; disease and infection prevention and outbreak protocols; health promotion, disease prevention and worker wellness program information; a process for communication, coordination and collaboration with the NHA and other local health service providers (including patient care/transfer, data collection and reporting), and an adaptive management plan Use the airstrip to transport temporary construction workers residing outside of the SERSA |
| 24.0 | Non-traditional Land and Resource Use | | |
| 24.1 | Displacement of land use activities | C, O, CL, PC | <ul style="list-style-type: none"> Consult with tenure holders to identify mutually-acceptable accommodations for potential Project effects, in accordance with relevant guidance including FLNRO's (2008) <i>Practical Guide to Effective Coordination of Resource Tenures</i> (all indicators) Allow livestock to be moved to other pastures if necessary (Agriculture and Range) Identify alternative watering locations in discussion with the land and/or livestock owner(s), if livestock access to water supply is curtailed by mine operations activities or infrastructure (Agriculture and Range) Protect groundwater wells with temporary fencing during construction (Water Use) Narrow the transmission line right of way (ROW) to avoid overlap with PID 9280481 (Private Properties) Inform the public (e.g. through signage) that consumption of surface water in the TSF and pit lake is not advisable during closure and post-closure, and that Davidson Creek may not be potable during the months of April and May during post-closure Provide maps and early notification of Project development and other physical work to affected regional forestry stakeholders |
| 24.2 | Impeded access to lands and resources | C, O, CL, PC | <ul style="list-style-type: none"> Provide the construction schedule to tenure holders and recreational groups (e.g., Northwest Brigade Paddling Club, nearby lodges and the local offices of BC FLNRO) overlapping the Project, 30 days prior to the start of construction and resolve any issues related to access as per appropriate industry and provincial standards, guidelines and best practices (all indicators) Erect appropriate signage notifying temporary closure on affected access routes (all indicators) Implement the TAMP (draft plan provided in Section 12.2.1.18.4.14 of the Application), including a Traffic Management Plan (draft plan provided in Section 12.2.1.18.4.14.7.4 of the Application/EIS) (all indicators) Bus or fly the workforce to the mine site during Construction and Operations, where applicable (all indicators) Participate in the Kluskus FSR industrial road users group over the mine life (all indicators) Facilitate movement of livestock and farm machinery across ROW corridors, where applicable (Agriculture and Range) |

²² Northern Health Authority. 2015. *Health and Medical Services Best Management Guide for Industrial Camps*. https://northernhealth.ca/Portals/0/Your_Health/Programs/Public%20Health/OfficeHealthResourceDevelopment/2015-03-HMSP.pdf

²³ Northern Health Authority. 2015. *Health and Medical Services Best Management Guide for Industrial Camps*. https://northernhealth.ca/Portals/0/Your_Health/Programs/Public%20Health/OfficeHealthResourceDevelopment/2015-03-HMSP.pdf

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|------|---|--------------|---|
| 24.3 | Reduced resource availability | C, O, CL, PC | <ul style="list-style-type: none"> • Implement the TAMP (draft plan provided in Section 12.2.1.18.4.14 of the Application/EIS), including a Traffic Management Plan (draft plan provided in Section 12.2.1.18.4.14.7.4) (Hunting, Guide Outfitting and Trapping) • Compensate affected trapline holders in accordance with industry and provincial protocols with associated proof of lost revenue • Limit disturbance to habitat of marten, weasel, beaver, muskrat, and other furbearers 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; Section 5.4.13.8) (Hunting, Guide Outfitting and Trapping) • Use noise abatement and operations scheduling considerations at noise-sensitive locations and times, where appropriate, to limit disruption to sensitive receptors (Hunting, Guide Outfitting and Trapping) • Implement no hunting (including no trapping), no gathering, and no firearms policies for Project employees and contractors while resident at the mine site as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) • (Hunting, Guide Outfitting and Trapping) • Deactivate and decommission transmission line access roads during the early years of operations to limit predator movements and vision along the line • Deploy berms, woody debris, and/or other visual barriers in appropriate locations along the transmission line that may also facilitate cover and movement for furbearers and other smaller animals (Hunting, Guide Outfitting and Trapping) • Manage vegetation by foot during operation of the line, accessed from existing forest roads. (Hunting, Guide Outfitting and Trapping) • After initial clearing, maintain vegetation along the transmission line right of way to minimize predator sight lines by maintaining limits of approach and the height of the plant community at no lower than three feet from the ground on an average basis, except where an area is needed for tower bases, guy anchor points and along access roads (Hunting, Guide Outfitting and Trapping) • Compensate impacts on fish and fish habitat by implementing a Fisheries Mitigation and Offset Plan (Fishing and Aquaculture) • Implement a no fishing policy as described in the WLMP (draft plan provided in Section 12.2.1.18.4.6 of the Application/EIS) (Fishing and Aquaculture) • Require Project vehicles to use only the ROWs and designated access roads near Project development areas to minimize compaction of agricultural soil (Agriculture and Range) • Implement 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) (Agriculture and Range) • Follow BC FLNRO guidelines and requirements for clearing, handling, and hauling beetle-infested wood (Forestry and Timber Use) • Communicate with the Village of Fraser Lake regarding plans for clearing and construction of the transmission line and discuss interest in timber from the community forest (Land File 7409927) (Forestry and Timber Use) • Work with FLNRO during detailed engineering of the transmission line at the permitting stage with the goal of avoiding MN4848 (growth and yield plots). If avoidance is not possible and prior to construction, New Gold will have this plot re-measured at New Gold's cost by a contractor to be approved by FLNRO (Forestry and Timber Use) • Work with MOTI to complete the required gravel/quarrying volumes testing for Land file 0107944 and compensate MOTI for the volume sterilized, if any, prior to start of construction in this area (Aggregates and Construction) |
| 24.4 | Disturbance of land users' quality of experience | | <ul style="list-style-type: none"> • Implement an AQEMP (draft plan provide in Section 12.2.1.18.4.9 of the Application/EIS), including measures to manage fugitive dust (all indicators) • Implement fugitive dust management measures as described in the AQEMP (see draft plan in Section 12.2.1.18.4.9 of the Application/EIS), which may include wetting unpaved roadways, revegetation of disturbed areas and/or using other materials to minimize dust (all indicators) • Use noise abatement and construction scheduling considerations at noise-sensitive locations and times, where appropriate, to limit disruption to sensitive receptors (all indicators) • Implement visual quality mitigation measures for the transmission line including clear-spanning trails, avoiding tower and pole placement on trails, minimizing placement of towers/poles on top of ridgelines, summits, or other locations where they may be silhouetted against the sky and locating towers/poles and ROW to take advantage of natural screening from vegetation and topography (all indicators) • Require project drivers to close gates properly when vehicles require access to right of way corridors on fenced and gated lands (Agriculture and Range) • Install fencing to restrict cattle movement into the transmission line ROW (Land File 0194075), as necessary and feasible (Agriculture and Range) |
| 25.0 | Current Land and Resource Use for Traditional Purposes | | |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|------|---|--------------|--|
| 25.1 | Reduced access to hunting and trapping sites for UFN, LDN and STN | C, O, CL, PC | <ul style="list-style-type: none"> • Establish an Access Management Working Group with Aboriginal participation • Establish a Traditional Knowledge/ Traditional Land Use (TK/TLU) Committee to monitor project development and provide TK/TLU information to incorporate during final project design, construction, operations, closure and post-closure • Monitor for unanticipated Indigenous food security effects resulting from the Project based on the following: <ul style="list-style-type: none"> ○ change in moose abundance and distribution (using information from the moose winter aerial surveys which New Gold has committed to, as well as other available data); ○ change in country foods safety and perceived risk (country foods monitoring program); ○ information brought forward through the TK/TLU Committee as well as through other direct engagement with Indigenous groups (e.g., Environmental Monitoring Board). <p>Should monitoring identify unanticipated effects of the Project on Indigenous food security, New Gold will engage with Indigenous groups to identify appropriate measures to address the effects. Adaptive management may include working with Indigenous groups to identify and deactivate orphan roads to reduce habitat fragmentation in the regional study area, either via in-kind support from New Gold or by assisting Aboriginal groups access funding</p> <ul style="list-style-type: none"> • Support programs that preserve the transfer of TK, as developed and guided by Aboriginal groups • Post and enforce speed limits on Project-controlled roads • Communicate with trappers and guide outfitters • Implement a country food monitoring plan (draft plan provided in Appendix 9.2.2B of the Application/EIS) in relation to the mine site to monitor species that represent pathways for metals concentrations in country food including plants, mammals and fish)Establish a cultural awareness program to provide information on the history of Aboriginal groups within the vicinity of the Project • Establish a procedure to facilitate access to the mine site area by designated Aboriginal groups for cultural purposes, provided access can be accommodated |
| 25.2 | Reduced access to other cultural and traditional land use sites for UFN and STN | C, O, CL, PC | <ul style="list-style-type: none"> • Establish an Access Management Working Group with Aboriginal participation • Establish a TK/TLU Committee to monitor project development and provide TK/TLU information to incorporate during final project design, construction, operations, closure and post-closure, and support programs that preserve the transfer of TK, as developed and guided by Aboriginal groups • Post and enforce speed limits on Project-controlled roads • Establish a cultural awareness program to provide information on the history of Aboriginal groups within the vicinity of the Project • Establish a communications process with potentially affected First Nations regarding project-related activities • Establish a procedure to facilitate access to the mine site area by designated Aboriginal groups for cultural purposes, provided access can be accommodated |
| 25.3 | Reduced access to gathering areas for UFN | C, O, CL, PC | <ul style="list-style-type: none"> • Establish an Access Management Working Group with Aboriginal participation • Establish a TK/TLU Committee to monitor project development and provide TK/TLU information to incorporate during final project design, construction, operations, closure and post-closure and support programs that preserve the transfer of TK, as developed and guided by Aboriginal groups • Post and enforce speed limits on Project-controlled roads • Use existing roads to extent possible • Establish a communications process with potentially affected First Nations regarding project-related activities • Establish a procedure to facilitate access to the mine site area by designated Aboriginal groups for cultural purposes, provided access can be accommodated • Implement a no gathering policy for Project workers and contractors while resident on site to reduce access to gathering areas and pressure on gathering |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|------|---|--------------|--|
| 25.4 | Reduced wildlife harvesting success for LDN, NWFN, SFN, StFN, UFN and STN | C, O, CL, PC | <ul style="list-style-type: none"> • Participate in regional wildlife and resource management initiatives for grizzly bear, moose and caribou in WMs 6-01 and 7-12 • Follow guidelines for wildlife “least risk windows” where practicable • Post and enforce speed limits on Project-controlled roads and manage transportation to reduce wildlife collisions • Implement various environmental management plans related to wildlife management, visual resources and traffic management (Section 12 of the Application/EIS) • Use vegetation and coarse woody debris and other approaches to form visual barriers on cut lines, trails or other linear features to reduce changes in predator-prey dynamics • Implement no hunting (including no trapping) and no firearms policies for Project workers and contractors while resident on site to reduce hunting access and pressure • Restore disturbed habitats capable of supporting wildlife during reclamation and closure (draft plan provided in Section 2.6 of the Application/EIS) • Incorporate traditional knowledge in the finalization of the proposed new transmission line alignment to avoid impacting important sites and/or reduce adverse impacts on Aboriginal rights and interests • Establish a TK/TLU Committee to monitor Project development and incorporate TK/TLU information during final Project design, construction, operations, closure and post-closure and support programs that preserve the transfer of TK, as developed and guided by Aboriginal groups • Employ Aboriginal monitors over the life of the Project to assist with environmental and other monitoring |
| 25.5 | Reduced plant gathering success for UFN and STN | C, O, CL, PC | <ul style="list-style-type: none"> • Participate in regional wildlife and resource management initiatives for grizzly bear, moose and caribou in Wildlife Management Units 6-01 and 7-12 • Follow guidelines for wildlife “least risk windows” where practicable • Post and enforce speed limits on Project-controlled roads and manage transportation to reduce wildlife collisions • Implement various environmental management plans related to wildlife management, visual resources and traffic management (Section 12 of the Application/EIS) • Use vegetation and coarse woody debris and other approaches to form visual barriers on cut lines, trails or other linear features to reduce changes in predator-prey dynamics • Implement a no gathering policy for Project employees and workers while resident on the mine site to reduce access to gathering area and pressure on gathering • Restore disturbed habitats capable of supporting wildlife during reclamation and closure (draft plan provided in Section 2.6 of the Application/EIS) • Incorporate traditional knowledge in the finalization of the proposed new transmission line alignment to avoid impacting important sites and/or reduce adverse impacts on Aboriginal rights and interests • Implement a country food monitoring plan (draft plan provided in Appendix 9.2.2B of the Application/EIS) in relation to the mine site to monitor species that represent pathways for metals concentrations in country food including plants, mammals and fish) • Establish a cultural awareness program to provide information on the history of Aboriginal groups within the vicinity of the Project • Establish a TK/TLU Committee to monitor Project development and incorporate TK/TLU information during final Project design, construction, operations, closure and post-closure and support programs that preserve the transfer of TK, as developed and guided by Aboriginal groups • Employ Aboriginal monitors over the life of the Project to assist with environmental and other monitoring |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|-------------|---|--------------|---|
| 25.6 | Reduced quality of experience using lands and resources for hunting and trapping, fishing, plant gathering and use of cultural and traditional lands for LDN, NWFN, SFN, StFN, UFN and STN | C, O, CL, PC | <ul style="list-style-type: none"> • Establish an Access Management Working Group with Aboriginal participation • Establish a procedure to facilitate access to the mine site by designated Aboriginal groups for cultural purposes, provided access can be accommodated • Establish a TK/TLU Committee to salvage cultural data where avoidance of known archaeological sites, heritage sites and cultural heritage resources is not possible and support programs that preserve the transfer of TK, as developed and guided by Aboriginal groups • Establish a cultural awareness program to provide information on the history of Aboriginal groups within the vicinity of the Project • Allow vegetation to colonize the right-of-way as needed for sections in visually sensitive areas • Paint or stain transmission line structures to blend with the character of the surrounding environment as needed in visually sensitive areas as appropriate • Locate the transmission line within or alongside the footprints of existing long-term linear infrastructure (roads and transmission lines) to cluster disturbance, to the extent possible • Locate project infrastructure to take advantage of both topography and vegetation as screening devices to restrict views of the structures in sensitive viewing areas • Align the transmission line ROW to run in parallel to the natural contours of the landscape rather than perpendicular, to the extent possible • Avoid placing facilities on ridgelines, summits, or other locations where they will be silhouetted against the sky in sensitive viewing areas where possible • Avoid increasing disturbance within remaining areas of intact forests (i.e., areas with low levels of landscape disturbance) to the extent possible • Develop site-specific measures and/or designs at the crossings of the Nechako and Stellako rivers so structures do not unnecessarily affect natural lines (e.g., treelines, ridgelines, river banks) • Allow grass and brush to colonize the transmission line ROW for sections in sensitive viewing areas • Place towers/poles away from the banks of rivers |
| 26.0 | Visual Resources | | |
| 26.1 | Change to visual quality (Residences 3, 5, 6 and 7, Mary Jane Lake Recreation Site, Cabin Creek Falls Recreation Site, Nechako River/ Cut-off Creek Recreation Site, Big Bend Meadow Recreation Site, Cheslatta Trail, Brewster Lake Recreation Site, Tatelkuz Lake Indian Reserve (IR) 28, Stellako River) | C, O, CL, PC | <ul style="list-style-type: none"> • Locate the transmission line within or alongside the footprints of existing long-term linear infrastructure (roads and transmission lines) to cluster disturbance, to the extent possible • Locate project infrastructure to take advantage of both topography and vegetation as screening devices to restrict views of the structures in sensitive viewing areas • Align the transmission line ROW to run in parallel to the natural contours of the landscape rather than perpendicular, to the extent possible • Avoid placing facilities on ridgelines, summits, or other locations where they will be silhouetted against the sky in sensitive viewing areas where possible • Avoid increasing disturbance within remaining areas of intact forests (i.e., areas with low levels of landscape disturbance) to the extent possible • Develop site-specific measures and/or designs at the crossings of the Nechako and Stellako rivers so structures do not unnecessarily affect natural lines (e.g., treelines, ridgelines, river banks) • Allow grass and brush to colonize the ROW for sections in sensitive viewing areas • Place towers/poles away from the banks of rivers • Paint or stain transmission line towers/poles to blend in with surrounding environment |
| 26.2 | Change to visual quality (Tatelkus Lake IR 28, Dykam Ranch, Tatelkuz Lake Southeast Recreation Reserve, Snake Lake, Top Lake, Davidson Mountain, Kuyakuz Lake Recreation Site) | C, O, CL, PC | <ul style="list-style-type: none"> • Limit artificial light escaping from the mine site to the extent possible • Select and design materials to blend with landscape elements in sensitive viewing areas as appropriate • Paint or stain transmission line structures to blend with the colour and character of surroundings in sensitive viewing areas • Re-vegetate with native vegetation and establish a composition consistent with the surrounding undisturbed landscape where necessary, when construction is within line of sight of a known view point |
| 27.0 | Archaeological Sites | | |
| | Loss or alteration of know and as-yet unknown archaeological sites | C, O | <ul style="list-style-type: none"> • Avoid known archaeological sites to the extent possible • Conduct an archaeological impact assessment of the final transmission line alignment in areas of moderate to high potential prior to commencing transmission line construction to help inform the final transmission line route • Implement an Archaeology and Heritage Resources Management Plan (AHRMP; draft plan provided in Section 12.2.1.18.4.7 of the Application/EIS, including a chance find procedure and process for reporting chance finds to Aboriginal groups |
| 28.0 | Historic Sites | | |

| ID# | Valued Component (VC) / Effect | Timing | Mitigation Measures |
|-------------|---|--------------|--|
| | Loss or alteration of known and as-yet unknown historic heritage sites | C, O | <ul style="list-style-type: none"> Avoid known historic heritage sites to the extent possible Implement an AHRMP (draft plan provided in Section 12.2.1.18.4.7 of the Application/EIS), including a chance find procedure and process for reporting chance finds to Aboriginal groups |
| 29.0 | Paleontological Resources | | |
| | Land- altering activities impacting sites | C, O | <ul style="list-style-type: none"> Avoid known palaeontological sites to the extent possible Conduct a desk-based paleontological study prior to commencing transmission line construction to help inform the final transmission line route Implement the AHRMP (draft plan provided in Section 12.2.1.18.4.7 of the Application/EIS), including a chance find procedure, and a process for reporting chance finds to Aboriginal groups |
| 30.0 | Environmental Exposures²⁴ | | |
| | Project-related noise and environmental contaminants | C, O, CL, PC | <ul style="list-style-type: none"> Implement various environmental management plans mitigate adverse effects related to noise, air quality, water quality, terrestrial resources, fish and aquatic resources, and wildlife valued components. These plans will identify objectives, specific measures to mitigate effects, monitoring requirements and an adaptive management plan. |
| 31.0 | Worker Health and Safety | | |
| | Changes in health risk resulting in a change in the likelihood of injury or disease | C, O, CL | <ul style="list-style-type: none"> Adhere to Part 2 (Occupational Health) of the Health, Safety and Reclamation Code for Mines in British Columbia (BC MEM 2017)² Implement a Health and Medical Services Plan that is consistent with the Health and Medical Services Best Management Guide for Industrial Camps (Northern Health Authority, March 2015)²¹, and includes identification of: on-site health and medical services to be implemented to meet the Project's workforce's urgent and non-urgent health care needs; disease and infection prevention and outbreak protocols; health promotion, disease prevention and worker wellness program information; a process for communication, coordination and collaboration with the NHA and other local health service providers (including patient care/transfer, data collection and reporting), and an adaptive management plan Implement an Occupational Health and Safety Management Plan (OHSMP; draft plan provided in Section 12.2.1.18.4.15 of the Application/EIS), including measures to promote the health, safety and well-being of employees Adhere to the <i>Drinking Water Protection Act</i>²⁵ and Drinking Water Protection Regulation and treat drinking water or provide alternative drinking water if monitoring of the site well identifies exceedances of drinking water quality guidelines Implement fugitive dust management measures as described in the AQEMP (see draft plan in Section 12.2.1.18.4.9 of the Application/EIS), which may include wetting unpaved roadways, revegetation of disturbed areas and/or using other materials to minimize dust |

²⁴ The determination of significance considers all Project phases but it is based on the HHERA conducted for the Operations phase, which reflects the worse conditions for noise and environmental contaminants.

²⁵ *Drinking Water Protection Act*, SBC 2001, c 9. <http://canlii.ca/t/52p75> (accessed on April 13, 2017)