TABLE OF CONTENTS

List of Tables

20 SUMMARY OF MITIGATION MEASURES

This section of the Application for an Environmental Assessment Certificate/Environmental Impact Statement (Application) summarizes the key mitigation measures considered in the environmental effects assessment as listed in **Section 5.5, Section 6.3, Section 7.3, Section 8.3, Section 9.3** and additional commitments from **Sections 10, 12 and 13 (Table 20-1)**. The measures are intended to be specific and measureable. It is assumed that they will support the development of conditions by the British Columbia Environmental Assessment Office (BC EAO) and the Canadian Environmental Assessment Agency (Agency).

Table 20-1: Proposed Key Mitigation Measures

No.	Key Mitigation Measures/Commitments Project Description	Timing
1.	Cluster mine site components, including the pit, low grade ore (LGO) and temporary ore stockpiles, waste dumps, mill, truck shop, Tailings Storage Facility (TSF), seepage collection pond, freshwater pond, and ancillary facilities, to minimize the Project mine site footprint.	D; C; O; CL
2.	Site mine facilities outside the Blackwater River drainage catchment to the south, areas of Davidson Creek and Creek 661 used by kokanee to the north, as shown in the Application and the currently designated Ungulate Winter Range (UWR) to the west.	D; C; O; CL
3.	Adhere to the International Cyanide Management Code (ICMC) (International Cyanide Management Institute, 2012), and follow Environment Canada's Environmental Code of Practice for Metal Mines (EC, 2009) conditions, where applicable.	D; C; O; CL
4.	Prevent surface water discharge from the mine site during operations and closure until the pit lake is full (approximately 18 years after the cessation of mill operations) by directing mine site contact water to the TSF and by recycling tailings pond supernatant water and seepage.	D; C; O; CL
5.	Construct TSF Site C and associated supernatant recycle and seepage recovery systems prior to commissioning the mill.	D; C; O; CL
6.	Minimize seepage from TSF Site D by constructing a cut-off trench, Environmental Control Dam (ECD), collection ditches and seepage pump back system prior to completing commissioning for TSF Site D. Prevent seepage from TSF Site C reaching Lake 01538UEUT (Lake 15) in the adjacent Creek 705 watershed by constructing a hydraulic barrier prior to TSF Site C commissioning. Construct a runoff and seepage collection ditch below the East Dump and direct collected water to the TSF prior to placing waste rock in the East Dump.	D; C; O; CL
7.	Establish a waste rock geochemical testing program for mine site exploration and blast holes prior to blasting as part of pit stripping or blasting for mill construction. Maintain a metal leaching/acid rock drainage (ML/ARD) block model while the pit is being mined. Identify and segregate potentially acid-generating (PAG)/ML waste rock while mining the pit and submerge the PAG/ML waste rock with tailings in the TSF. Submerge PAG1 and PAG2 waste rock within one year and NAG3 within five years of mining of mining. No PAG waste rock will be used in construction except shells of TSF dams that will be subsequently inundated (e.g., dam C and upstream dam D). Maintain a database of geochemical testing results and waste rock and overburden placement	D; O; CL

No.	Key Mitigation Measures/Commitments Project Description	Timing
	records. Provide annual reports to BC Ministry of Energy and Mines (BC MEM) and BC Ministry of Environment (BC MOE) and designated Aboriginal groups summarizing the results of geochemical testing.	
8.	Construct a lime treatment system prior to commissioning the LGO and temporary ore stockpiles and treat the acidic runoff from the stockpiles prior to discharge to the TSF until the stockpiles are removed. If the LGO is not processed by the end of mill operations, backfill the LGO below the final water level in the pit or TSF.	D; C; O; CL
9.	Pump water from Tatelkuz Lake to a water reservoir below the ECD and discharge sufficient water to meet instream flow needs for aquatic resources in Davidson Creek as defined with BC MOE and Fisheries and Oceans Canada (DFO). Commence flow maintenance to maintain the instream flow needs (IFN) in Davidson Creek and operate through the operations and closure phases until the IFN are met by TSF discharges to Davidson Creek.	D; C; O; CL
10.	Construct a SO_2/air process treatment plant for mill tailings prior to commissioning the mill. Treat the tailings using the SO_2/air process and discharge to the TSF while the mill is operating.	D; O; CL
11.	Place an approximately 30-centimetre (cm) overburden layer on top of the tailings and waste rock in the TSF during closure to isolate the supernatant from TSF pore water.	C
12.	Monitor seepage, groundwater, and surface water downstream of the TSF and waste dumps. Establish trigger levels to implement contingency measures described in the Application to protect downstream receiving water quality and aquatic resources.	D; C; O; CL
	Environmental Management System	
13.	Develop a comprehensive documented Environmental Management System (EMS), including Environmental Management Plans (EMPs), based on prevention, mitigation, and management of impacts identified in the Application. Prepare and update the EMPs as required to describe measures to prevent or mitigate potential effects related to mine construction, operations, and closure phases, and provide the draft EMPs to BC MEM, BC MOE. The EMS will include the following EMPs: • Sediment and Erosion Control Plan (SECP); • Aquatic Resources Management Plan (ARMP); • Wetlands Management Plan (WMP) • Landscape, Soils and Vegetation Management and Restoration Plan (LSVMRP); • Invasive Species Management Plan (ISMP); • Wildlife Management Plan (WLMP); • Archaeology and Heritage Resources Management Plan (AHRMP); • Visual Resources Management Plan (VRMP); • Air Quality and Emissions Management Plan (AQEMP); • Water Quality and Liquid Discharges Management Plan (WQLDMP); • Industrial and Domestic Waste Management Plan (IDWMP); • Hazardous Materials Management Plan (HMMP); • Emergency and Spill Preparedness and Response Plan (ESPRP); • Transportation and Access Management Plan (TAMP); • Occupational Health and Safety Management Plan (OHSMP); • Recruitment, Training, and Employment Plan (RTEMP); • Mine Waste Management Plan (MWMP); • Mine Water Management Plan (MWAMP);	C; O; CL; PC

No.	Key Mitigation Measures/Commitments Project Description	Timing
	• Cyanide Management Plan (CYMP); • Wildfire Management Plan; and • Reclamation and Closure Plan (RCP).	
	Atmospheric Environment	
14.	Develop and implement the AQEMP that describes dust control measures including watering haul roads when required, maintaining TSF beaches in a wet condition, implementing progressive reclamation on waste rock dumps, and installing dust control systems for the crusher as described in the Application.	C; O; CL
	Aquatic Environment	
15.	Implement the Fisheries Mitigation and Offsetting Plan (FMOP) as defined in authorizations issued by DFO under section 35(2)(b) of the *Fisheries Act* for the replacement of lost fish habitat in Davidson Creek and other watersheds. Report progress annually to DFO, BC MOE, and designated Aboriginal groups until requirements in authorizations are met.	C; O; CL
16.	Develop and implement the SECP that includes constructing sediment control facilities such as diversion and collection ditches and sediment control ponds and implementing BMPs prior to surface disturbance as described in the Application. Establish flocculent addition systems as contingency measures for sediment ponds that will discharge directly to surface waters prior to operating the ponds.	C; O; CL
17.	Establish and implement a Fish Salvage Plan and an Aquatic Effects Monitoring Plan (AEMP) appropriate for each phase of mine development, including reporting to BC MOE, DFO, and designated Aboriginal groups.	C; O; CL
18.	Construct wetlands in TSF Site C and D after closure as part of water treatment.	CL
19.	Construct a wetland at the ECD site after closure as part of seepage water treatment	CL
20.	As a contingency, and if required, construct a wetland in the water reservoir area below the ECD on closure if further polishing of TSF discharge water and seepage is required	CL
	Terrestrial Environment	
21.	Strip and stockpile topsoil for later use in reclamation as described in the RCP in the Application. Conduct progressive reclamation of the West Dump, TSF Site C and topsoil stockpiles when feasible as described in the RCP.	C; O; CL; PC
22.	Develop and submit Whitebark Pine Management Plan to BC MOE and designated Aboriginal groups prior to clearing in whitebark pine habitat. Implement the Whitebark Pine Management Plan and report process at least every three years to the BC MOE and designated Aboriginal groups.	C; O; CL
	Wildlife and Wildlife Habitat	
23.	Prior to mine operation, define the Proponent's contribution to regional management initiatives for ongoing research and monitoring of the Tweedsmuir-Entiako Northern Caribou subpopulation and their habitat use near the mine. Report on progress at least every three years through the operation of the mine in implementing the Proponent's contribution to regional initiatives and how the initiatives have influenced mine activities, undertakings, or works to the BC MOE and designated Aboriginal groups.	C; O; CL

No.	Key Mitigation Measures/Commitments Project Description	Timing
	Economic	
24.	Enhance local and regional benefits by identifying opportunities to enhance direct employment from the Socio-economic Regional Study Area (SERSA) and procurement of Project goods and services acquired from regional suppliers.	C; O; CL
25.	Identify issues and develop mitigation recommendations related to service provision, housing, and health and social services that might result in costs to local and regional government.	C; O; CL
	Social	
26.	Provide incentives and inducements to workers to move permanently to the Local Study Area (LSA) and encourage New Gold management team to reside in the SERSA.	C; O; CL
27.	Construct an on-site airstrip to facilitate transport of construction workers from outside the SERSA and provide grouped transportation between Vanderhoof and the mine construction camps. Continue to provide buses between Vanderhoof and the operations camp.	C; O; CL
28.	Complete upgrades to sections of the Kluskus Forest Service Road (FSR) to enhance transportation safety as described in the Application and the TAMP.	C
29.	Establish a self-contained construction camp and appropriate worker rotation during the construction phase in order to offset Project demands for regional services.	C
30.	Implement a no on site alcohol and drug policy and no hunting and fishing policy, including related activities, for construction and operations staff and contractors while on company business or staying in accommodations provided by the company.	C; O; CL
31.	Establish and implement policies to promote: no workplace harassment; health, safety and security; multi-cultural workforce considerations; and Aboriginal awareness training and report progress. Report yearly on progress.	C; O; CL
32.	Establish and implement RTEMP that includes training for: • Working with training institutions such as CNC and BC Aboriginal Mine Training Association and local education providers to provide training programs and skills upgrading; • Partnering with local contractors to provide New Gold apprenticeship programs; • Source and train under-represented groups; and • Offer scholarships to encourage high school graduation. Report progress in implementing the RTEMP annually to designated Aboriginal groups.	C; O; CL
33.	Work with local agencies to assist in monitoring community well-being and take corrective actions where appropriate, including developing a health and well-being management plan based on guidelines from Northern Health.	C; O; CL
34.	Work with Aboriginal groups to develop a strategy to identify and reduce barriers to employment and training and report progress annually to BC MEM and designated Aboriginal groups.	C; O; CL

No.	Key Mitigation Measures/Commitments Project Description	Timing
35.	Establish health and medical services (equipment and personnel) to meet the requirements of the Health, Safety and Reclamation Code for Mines in British Columbia and WorkSafeBC.	
	Land Use (Traditional and Non-traditional Land Use)	
36.	Continue to consult through construction and operations with tenure holders overlapping the project components to consider how operational plans can incorporate other land uses and report results to BC Ministry of Forests, Lands and Natural Resource Operations.	C; O; CL
37.	Establish and implement TAMP that includes a traffic control and management strategy along the right-of ways (ROWs) and facilitates movement of livestock and farm machinery across the ROW corridors, where applicable.	C; O; CL
38.	Ongoing consultation with Aboriginal groups will occur with respect to design and implementation of the final TAMP, for instance through the CLC if that mode of communications is acceptable to Aboriginal groups.	
39.	Compensate affected trapline holders in accordance with industry and provincial protocols with associated proof of lost revenue (e.g., registered trapper compensation program for oil and gas, BC Ministry of Energy and Mines).	
40.	Follow all BC MFLNRO guidelines and requirements for clearing, handling, and hauling beetle-infested wood (e.g., Guidance on Landscape and Stand-level Structural Retention in Large-scale Mountain Pine Beetle Salvage Operations, 2005; Bark Beetle Management Guidebook, 1995).	C; O; CL
41.	Establish a committee including affected Aboriginal groups representatives to discuss and implement mitigation measures as required for access management along the transmission line corridor.	C; O; CL
42.	Provide results of water quality sampling to BC MOE designated Aboriginal groups as part of an environmental monitoring board notwithstanding annual reporting required as part of permits.	C; O; CL
	Heritage	
43.	Develop an AHRMP that includes informing workers of sensitive cultural areas, a chance find procedure, and a process for reporting to applicable First Nations.	C; O; CL
44.	Define in the AHRMP processes to record, analyze and mitigate physical remains of cultural sites, such as cabins, archaeological sites, culturally modified trees, and trails identified through Heritage Effects Assessments.	C; O; CL
45.	Through bilateral discussion between the Proponent and Aboriginal groups, facilitate access to the mine site area by designated Aboriginal groups for cultural purposes, provided safe access can be accommodated.	C; O; CL

No.	Key Mitigation Measures/Commitments Project Description	Timing
	Health	
46.	Promote a safety culture, meeting or exceeding all regulatory requirements by establishing and implementing the OHSMP. Maintain safety records and report results to BC MEM and designated Aboriginal groups.	D; C; O; CL
47.	Develop and submit a Country Food Monitoring Plan for review with relevant agencies and designated Aboriginal groups. Implement the Country Foods Monitoring Plan prior to mine operations and provide results of monitoring within one year of completion of the monitoring to those groups.	C; O; CL

Note: Project phase (timing): D = Design; C = construction; O = operations; CL = closure PC = post-closure