



Blackwater Gold Project

Independent Environmental Monitor – Terms of Engagement

March 2022

CONTEXT STATEMENT

The Blackwater Gold Project (Project) received Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019 under the 2002 *Environmental Assessment Act* and a Decision Statement on April 15, 2019 under the *Canadian Environmental Assessment Act, 2012*, approving the Project with conditions. Blackwater is an open pit gold and silver mine with associated ore processing facilities located 110 kilometres southwest of Vanderhoof in central British Columbia.

The Independent Environmental Monitor – Terms of Engagement (IEM – TOE) is required by Condition 12 of the EAC and Condition 9 of the Federal Decision Statement (DS). Concordance tables identifying requirements in the EAC and DS conditions are provided below.

BW Gold is providing this draft version of the IEM – TOE for review and comment. BW Gold welcomes comments on the draft plan.

Concordance with EAC-M19 Schedule B Conditions

Requirement	Location in ToE
a) Define the role, responsibilities and qualifications of the IEM(s).	Section 4: The Role, Responsibilities, of the IEM(s); Section 5: IEM and IEM Support Staff Qualifications
b) Define and outline the roles, responsibilities and qualifications of any staff or other persons that will assist the IEM(s) with performing the IEM's roles and responsibilities (each an "IEM(s) Support").	Section 5: IEM and IEM Support Staff Qualifications
c) Describe the nature and frequency of monitoring.	Section 6: Nature and Frequency of Monitoring, Access to Site for IEM
d) Define the process whereby the IEM(s) or an IEM(s) Support will make recommendations to the Holder to take mitigative or corrective actions to address any non-compliance or potential non-compliance with this Certificate.	Section 9: Recommendations Process to Take Mitigative or Corrective Actions to Address Any Non-Compliance or Potential Non-Compliance with EAC or Federal DS
e) Define the process by which the recommendations in section f) above will be communicated to the EAO, the Aboriginal Groups, and the Holder.	Section 10: Process for Communicating the Findings from IEM Site Visits, Non-Compliances Made by IEM to the EAO, IAAC, Aboriginal Groups, Other Regulatory Agencies (As Required)
f) Define the situations in which the IEM(s) will have the authority from the Holder to stop work on part or all of the Project if the IEM(s) determines that: <ul style="list-style-type: none"> I. The Holder has not, or may have not, complied fully with the requirements of this Certificate; and II. Stopping work is necessary to prevent or reduce Project-related adverse effects as determined by the IEM(s) or any IEM(s) support. 	Section 9.1: Review and Internal Reporting Process
g) Describe the process whereby the Holder, in consultation with Aboriginal Groups, EMPR, ENV, and FLNRORD may review the approved IEM(s) terms of engagement and submit a revised IEM(s) terms of engagement to the EAO for approval.	Section 12: Process for Reviewing the Terms of Engagement in Consultation with Aboriginal Groups, EMPR, ENV, and FLNRORD Prior to Submission to EAO

Requirement	Location in ToE
h) Describe the provision of access to the Project Site so the IEM(s) can perform its duties, and the process by which that access will be provided.	Section 6: Nature and Frequency of Monitoring, Access to Site for IEM
i) Defining a process and protocols for inviting the Aboriginal Group monitors required by Condition 17 (Aboriginal Group Monitor and Monitoring Plan) in site inspections, including identification of circumstances under which those opportunities may be limited (if any) and how, in those cases, information will be provided to Aboriginal Group monitors following those inspections.	Section 11: Process and Protocols for Inviting Aboriginal Group Monitors (Required by EAC Condition 17) on Site Inspections
j) Outline the details of a Project phase completion report to be submitted to the EAO and Aboriginal Groups upon completion of each of Construction, Operations, Closure and Post-Closure phases. The reports must be written by the IEM(s) and include, but is not necessarily limited to: <ul style="list-style-type: none"> I. a record of all non-compliances with this Certificate; II. a record of the recommendations made by the IEM(s) to the Holder to prevent or address any non-compliance with this Certificate; III. a record of whether and how any such recommendations from the IEM(s) were implemented and the corresponding outcome of implementation; IV. a record of all stop work orders issued to prevent or address a non-compliance with this Certificate and any Provincial or Federal legislation or authorization applicable to the Project; V. assessment of the effectiveness of the mitigation measures for Construction, Operations, Closure and Post-Closure; and VI. Recommendations on how to achieve and maintain compliance with the conditions of this Certificate for the next Project phase. 	Section 10.2: Project Phase Completion Reporting
k) A requirement that a detailed workplan for each phase of the Project be submitted to the EAO for approval prior to the start of the relevant Project phase. The workplans must describe the frequency of inspections and rationale, the manner in which IEM(s) identified non-compliances will be communicated to the EAO, Aboriginal Groups, and the Holder, and the format and frequency of IEM(s)' reports.	Section 8: Detailed Work Plans

Concordance with Federal DS Conditions

Requirement	Location in ToE
9.1 The Proponent shall retain, prior to construction, the services of an independent environmental monitor, who is a qualified individual as it pertains to environmental monitoring of mining projects in British Columbia, and is also a Qualified Professional, where such a qualification exists, to observe, record, and report on the implementation of the conditions set out in this Decision Statement during all phases of the Designated Project.	Section 5: IEM and IEM Support Staff Qualifications
9.2 As part of the reporting requirement pursuant to condition 9.1, the independent environmental monitor shall advise the Proponent, the Agency and Aboriginal groups if, in their view, the activities do not comply with the conditions set out in this Decision Statement. The independent environmental monitor shall also advise the Proponent, the Agency and Aboriginal groups whether measures should be taken in respect to these activities.	Section 10: Process for Communicating the Findings from IEM Site Visits, Non-Compliances and Recommendations Made by IEM to the EAO, IAAC, Aboriginal Groups, Other Regulatory Agencies (As Required)
9.3 The Proponent shall require the independent environmental monitor to prepare reports at a frequency determined in consultation with the Agency and relevant authorities that include: 9.3.1 a description, including through photo evidence, of the Designated Project activities that occurred and the mitigation measures that were applied during the period covered by the report; and 9.3.2 a description, including through photo evidence, of occurrence(s) of non-compliance related to the implementation of conditions set out in this Decision Statement observed during the period covered by the report, including:	Section 10: Process for Communicating the Findings from IEM Site Visits, Non-Compliances and Recommendations Made by IEM to the EAO, IAAC, Aboriginal Groups, Other Regulatory Agencies (As Required)
9.3.2.1 the date of the occurrence(s) of non-compliance;	Section 10: Process for Communicating the Findings from IEM Site Visits, Non-Compliances and Recommendations Made by IEM to the EAO, IAAC, Aboriginal Groups, Other Regulatory Agencies (As Required)
9.3.2.2 whether Designated Project activities were changed or stopped as a result of the occurrence(s) of non-compliance;	Section 9.1: Review and Internal Reporting Process
9.3.2.3 how the occurrence(s) of non-compliance was or were corrected by the Proponent and the date that the corrective action(s) was or were completed by the Proponent; and	Section 9.1: Review and Internal Reporting Process
9.3.2.4 if any, the status of pending occurrences of non-compliance that have not been corrected yet by the Proponent and a description of any adverse environmental effects associated with the occurrences of non-compliance.	Section 10: Process for Communicating the Findings from IEM Site Visits, Non-Compliances and Recommendations Made by IEM to the EAO, IAAC, Aboriginal Groups, Other Regulatory Agencies (As Required)
9.4 The Proponent shall require the independent environmental monitor to provide the reports referred to in condition 9.3 to the Agency, Aboriginal groups and relevant federal authorities within 10 days of their production. The Proponent shall require the independent environmental monitor to retain the reports referred to in condition 9.3 until the end of decommissioning.	Section 10.1: Standard Reporting Process

Requirement	Location in ToE
9.5 The Proponent shall require the independent environmental monitor to report all occurrence(s) of non-compliance observed by the independent environmental monitor directly to the Agency, Aboriginal groups and relevant federal authorities within 48 hours of the observation of occurrence(s) of non-compliance.	Section 10.1: Standard Reporting Process
12.1 The Proponent shall maintain all records relevant to the implementation of the conditions set out in this Decision Statement. The Proponent shall retain the records and make them available to the Agency throughout construction and operation and for 25 years following the end of decommissioning of the Designated Project. The Proponent shall provide the aforementioned records to the Agency upon demand within a timeframe specified by the Agency.	Section 15: Record Keeping
12.2 The Proponent shall retain all records referred to in condition 12.1 at a facility in Canada and shall provide the address of the facility to the Agency. The Proponent shall notify the Agency at least 30 days prior to any change to the physical location of the facility where the records are retained, and shall provide to the Agency the address of the new location.	Section 15: Record Keeping

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ACRONYMS AND ABBREVIATIONS

Aboriginal Groups or Indigenous groups	Ulkatcho First Nation, Lhoosk'uz Dené Nation, Nadleh Whut'en First Nation, Stellat'en First Nation, Saik'uz First Nation, and Nazko First Nation (as defined in Environmental Assessment Certificate M#19-01)
Artemis	Artemis Gold Inc.
BC	British Columbia
Blackwater or Project	Blackwater Project or Blackwater Gold Project
BW Gold	BW Gold LTD.
CCME	Canadian Council of Ministers of the Environment
CEMP	Construction Environmental Management Plan
CEO	Chief Executive Officer
CM	Construction Manager
COO	Chief Operating Officer
Designated Project	Means the Blackwater Gold Project as described in section 2 of the environmental assessment report prepared by the Canadian Environmental Assessment Agency (Canadian Environmental Assessment Registry Reference Number 80017, Document Number 27; as defined by the Project's federal Decision Statement).
DS	Decision Statement
DFO	Fisheries and Oceans Canada
EAC	Environmental Assessment Certificate
EAO	Environmental Assessment Office
EC	Environment Canada
ECCC	Environment and Climate Change Canada
EHS	Environmental Health and Safety
EM	Environmental Manager
EMC	Environmental Monitoring Committee
EMLI	Ministry of Energy, Mines and Low Carbon Innovation
EMPR	Ministry of Energy, Mines, and Petroleum Resources.
EMS	Environmental Management System
ENV	Ministry of Environment and Climate Change Strategy

EPCM	Engineering, Procurement and Construction Management
FLNRORD	Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
HC	Health Canada
IAAC	Impact Assessment Agency of Canada (formerly Canadian Environmental Assessment Agency (CEAA))
IEM	Independent Environmental Monitor
IEM – TOE	Independent Environmental Monitor – Terms of Engagement
Aboriginal groups or Aboriginal Peoples	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, Stellat'en First Nation, Nazko First Nation, Skin Tyee Nation, T̓silhqot'in Nation, Métis Nation British Columbia, and Nee-Tahi-Buhn Band (as defined in the federal Decision Statement)
IPMP	Invasive Plants Management Plan
IR	Information Request
LDN	Lhoosk'uz Dené Nation
MDMER	Metal and Diamond Mining Effluent Regulations
MELP	Ministry of Environment, Lands and Parks
MEM	Ministry of Energy and Mines
MERP	Mine Emergency Response Plan
ML/ARD	Metal Leaching and Acid Rock Drainage
MOE	Ministry of Environment
MOF	Ministry of Forests
MOFR	Ministry of Forests and Range
MOTI	Ministry of Transportation and Infrastructure
MP	Management Plan
MSDP	Mine Site Water and Discharge Monitoring and Management Plan
MWLAP	Ministry of Water, Land and Air Protection
New Gold	New Gold Inc.
NFN	Nazko First Nation
NWFN	Nadleh Whut'en First Nation
Project	Blackwater Gold Project
QA/QC	Quality assurance/Quality control
SEPSCP	Surface Erosion Prevention and Sediment Control Plan

SFN	Saik'uz First Nation
SMP	Soil Management Plan
SOPs	Standard Operating Procedures
StFN	Stellat'en First Nation
the Code	Health, Safety and Reclamation Code for Mines in British Columbia
TSF	Tailings storage facility
UFN	Ulkatcho First Nation
VEC	Valued Ecosystem Component
VMP	Vegetation Monitoring Plan
VP	Vice President
WMMP	Wildlife Mitigation and Monitoring Plan
WRMP	Waste and Refuse Management Plan

1. PROJECT OVERVIEW

The Blackwater Gold Project (the Project) is a gold and silver open pit mine located in central British Columbia (BC), approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver.

The Project is presently accessed via the Kluskus Forest Service Road (FSR), the Kluskus-Ootsa FSR, and an exploration access road, which connects to the Kluskus-Ootsa FSR at km 124.5. The Kluskus FSR joins Highway 16 approximately 10 km west of Vanderhoof. A new, approximately 13.8 km road (Mine Access Road) will be built to replace the existing exploration access road, which will be decommissioned. Driving time from Vanderhoof to the mine site is about 2.5 hours.

Major mine components include a tailings storage facility (TSF), ore processing facilities, waste rock, overburden and soil stockpiles, borrow areas and quarries, water management infrastructure, water treatment plants, accommodation camps, and ancillary facilities. The gold and silver will be recovered into a gold-silver doré product and shipped by air and/or transported by road. Electrical power will be supplied by a new approximately 135 km, 230 kilovolt (kV) overland transmission line that will connect to the BC Hydro grid at the Glenannan substation located near the Endako mine, 65 km west of Vanderhoof.

The Blackwater mine site is located within the traditional territories of Lhoosk'uz Dené Nation (LDN), Uikatcho First Nation (UFN), Skin Tyee Nation and Tsilhqot'in Nation. The Kluskus and Kluskus-Ootsa FSRs and Project transmission line cross the traditional territories of Nadleh Whut'en First Nation (NWFN), Saik'uz First Nation (SFN), and Stelat'en First Nation (StFN; collectively, the Carrier Sekani First Nations) as well as the traditional territories of the Nazko First Nation (NFN), Nee Tahi Buhn Band, Cheslatta Carrier Nation, and Yekooche First Nation (EAO 2019a).

Project construction is anticipated to take two years. Mine development will be phased with an initial milling capacity of 15,000 tonnes per day (t/d) or 5.5 million tonnes per annum (Mtpa) for the first five years of operation. After the first five years, the milling capacity will increase to 33,000 t/d or 12 Mtpa for the next five years, and to 55,000 t/d or 20,000 Mtpa in Year 11 until the end of the 23-year mine life. The Closure phase is 24 years to approximately 45 years, ending when the Open Pit has filled and the TSF is allowed to passively discharge to Davidson Creek, and the Post-closure phase is 46+ years.

New Gold Inc. (New Gold) received Environmental Assessment Certificate EAC #M19-01 on June 21, 2019 under the 2002 *Environmental Assessment Act* (EAO 2019b) and a Decision Statement (DS) on April 15, 2019 under the *Canadian Environmental Assessment Act, 2012* (CEA Agency 2019b). In August 2020, Artemis Gold Inc. (Artemis) acquired the mineral tenures, assets, and rights in the Blackwater Project that were previously held by New Gold Inc. On August 7, 2020, the Certificate was transferred to BW Gold Ltd. (BW Gold), a wholly-owned subsidiary of Artemis, under the 2018 *Environmental Assessment Act*. The Impact Assessment Agency of Canada notified BW Gold on September 25, 2020 to verify that written notice had been provided within 30 days of the change of proponent as required in Condition 2.16 of the DS, and that a process had been initiated to amend the DS.

2. PROJECT ROLES AND RESPONSIBILITIES

BW Gold has the obligation of ensuring that all commitments are met and that all relevant obligations are made known to mine personnel and site contractors during all phases of the mine life. A clear understanding of the roles, responsibilities, and level of authority that employees and contractors have when working at the mine site is essential to meet Environmental Management System (EMS) objectives.

Table 3-1 provides an overview of general environmental management responsibilities during all phases of the mine life for key positions that will be involved in environmental management. Other positions not specifically listed in Table 3.1-1 but who will provide supporting roles include independent environmental monitors, an Engineer of Record (EOR) for each tailings storage facility and dam, an Independent Tailings Review Board (ITRB), TSF qualified person, geochemistry qualified professional, and other qualified persons and qualified professionals.

Table 3-1: BW Gold Roles and Responsibilities

Role	Responsibility
Chief Executive Officer (CEO)	The CEO is responsible for overall Project governance. Reports to the Board.
Chief Operating Officer (COO)	The COO is responsible for engineering and Project development and coordinates with the Mine Manager to ensure overall Project objectives are being managed. Reports to CEO.
Vice President (VP) Environment & Social Responsibility	The VP Environment & Social Responsibility is responsible for championing the Environmental Policy Statement and EMS, establishing environmental performance targets and overseeing permitting. Reports to COO.
General Manager (GM) Development	The GM is responsible for managing project permitting, the Project's administration services and external entities, and delivering systems and programs that ensure Artemis's values are embraced and supported, Putting People First, Outstanding Corporate Citizenship, High Performance Culture and Rigorous Project Management and Financial Discipline. Reports to COO.
Mine Manager	The Mine Manager, as defined in the <i>Mines Act</i> , has overall responsibility for mine operations, including the health and safety of workers and the public, EMS implementation, overall environmental performance and protection, and permit compliance. The Mine Manager may delegate their responsibilities to qualified personnel. Reports to GM.
Construction Manager (CM)	The CM is accountable for ensuring environmental and regulatory commitments/ and obligations are being met during the construction phase. Reports to GM.
Environmental Manager (EM)	The EM is responsible for the day-to-day management of the Project's environmental programs and compliance with environmental permits, updating EMS and MPs. The EM or designate will be responsible for reporting non-compliance to the CM, and Engineering, Procurement and Construction Management (EPCM) contractor, other contractors, the Company and regulatory agencies, where required. Supports the CM and reports to Mine Manager.
Departmental Managers	Departmental Managers are responsible for implementation of the EMS relevant to their areas. Report to Mine Manager.
Indigenous Relations Manager	Indigenous Relations Manager is responsible for Indigenous engagement throughout the life of mine. Also responsible for day-to-day management and communications with Indigenous groups. Reports to VP Environment & Social Responsibility.

Role	Responsibility
Community Relations Advisor	Community Relations Advisor is responsible for managing the Community Liaison Committee and Community Feedback Mechanism. Reports to Indigenous Relations Manager.
Independent Environmental Monitor (IEM)	To inspect project activities to verify whether the project is developed in accordance with regulatory requirements (EAC, associated management plans (MPs) and Federal CEAA DS). The IEM acts as an independent and neutral observer reporting back to EAO, IAAC, BW Gold and Aboriginal Groups.
Environmental Monitors	Environmental Monitors (includes Environmental Specialists and Technicians) are responsible for tracking and reporting on environmental permit obligations through field-based monitoring programs. Report to EM.
Aboriginal Monitors (AM)	Aboriginal Monitors are required under EAC condition 17 and will be responsible for monitoring for potential effects from the Project on the Indigenous interests. Indigenous Monitors will be involved in the adaptive management and follow-up monitoring programs. Report to EM.
Employees and Contractors	Employees are responsible for being aware of permit requirements specific to their roles and responsibilities. Report to departmental managers.
Qualified Professionals and Qualified Persons	Qualified professionals and qualified persons will be retained to review objectives and conduct various aspects of environmental and social monitoring as specified in EMPs and social MPs.

BW Gold will employ a qualified person as an EM who will ensure that the EMS requirements are established, implemented and maintained, and that environmental performance is reported to management for review and action. The EM is responsible for retaining the services of qualified persons or qualified professionals with specific scientific or engineering expertise to provide direction and management advice in their areas of specialization. The EM will be supported by a staff of Environmental Monitors that will include Environmental Specialists and Technicians and by a consulting team of subject matter experts in the fields of environmental science and engineering.

During the Construction phase, BW Gold will be entering into multiple EPC contracts, likely for the Transmission Line, Process Plant, Tailings and Reclaim System, and 25kV Power Distribution. Each engineer/contractor will have their own CM and there will be a BW Gold responsible PM and/or Superintendent who ultimately reports to the GM Development. Some of the scope, such as the TSF and Water Management Structures will be self-performed by BW Gold, likely using hired equipment. Other smaller scope packages may be in the form of EPCM contracts. The EPCM contractors will report to the CMs who will ultimately be responsible for ensuring that impacts are minimized, and environmental obligations are met during the Construction phase. For non-EPCM contractors, who will perform some of the minor works on site, the same reporting structure, requirements, and responsibilities will be established as outlined above. BW Gold will maintain overall responsibility for management of the construction and operation of the mine site and will therefore be responsible for establishing employment and contract agreements, communicating environmental requirements, and conducting periodic reviews of performance against stated requirements.

The CM is accountable for ensuring that environmental and regulatory commitments/obligations are being met during the construction phase. The EM will be responsible for ensuring that construction activities are proceeding in accordance with the objectives of the EMS and associated MPs. The EM or designate will be responsible for reporting non-compliance to the CM and EPCM contractor, other contractors, and regulatory agencies, where required. The EM or designate will have the authority to stop any construction

activity that is deemed to pose a risk to the environment; work will only proceed when the identified risk and concern have been addressed and rectified.

Environmental management during operation of the Project will be integrated under the direction of the EM, who will liaise closely with departmental managers and will report directly to the Mine Manager. The EM will be supported by the VP of Environment and Social Responsibility in order to provide an effective and integrated approach to environmental management and ensure adherence to corporate environmental standards. The EM will be accountable for implementing the approved MPs and reviewing them periodically for effectiveness. Departmental area managers (e.g., mining, milling, and plant/site services) will be directly responsible for implementation of the EMS and EMPs relevant to their areas. All employees and contractors are responsible for daily implementation of the practices and policies contained in the EMS.

During Closure and Post-closure staffing levels will be reduced to align with the level of activity associated with these phases. Prior to initiating closure activities, BW Gold will revisit environmental and health and safety roles and responsibilities to ensure the site is adequately resourced to meet permit monitoring and reporting requirements. The Mine Manager will have overall responsibility for Closure and Post-closure activities at the mine site.

Pursuant to Condition 19 of the Project's EAC #M19-01, BW Gold has established an Environmental Monitoring Committee (EMC) to facilitate information sharing and provide advice on the development and operation of the Project, and the implementation of EAC conditions, in a coordinated and collaborative manner. Committee members include representatives of the Environmental Assessment Office (EAO), UFN, LDN, NWFN, StFN, SFN, NFN, Ministry of Energy, Mines and Low Carbon Innovation (EMLI), Ministry of Environment and Climate Change Strategy, and Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLRNORD).

Pursuant to Condition 17 of the EAC, Aboriginal Group Monitor and Monitoring Plan, BW Gold will retain or provide funding to retain a monitor for each Aboriginal Group prior to commencing construction and through all phases of the mine life. The general scope of the monitor's activities will be related to monitoring for potential effects from the Project on the Aboriginal Group's Aboriginal interests.

3. PURPOSE AND OBJECTIVES

The purpose of the IEM – TOE is to define and outline processes for the following EAC Conditions:

- a) Define the role, responsibilities and qualifications of the IEM(s);
- b) Define and outline the roles, responsibilities, and qualifications of any staff or other persons that will assist the IEM(s) with performing the IEM's roles and responsibilities (each an "IEM(s) Support");
- c) Describe the nature and frequency of monitoring;
- d) Define the process whereby the IEM(s) or an IEM(s) Support will make recommendations to the Holder to take mitigative or corrective actions to address any non-compliance or potential non-compliance with this Certificate;
- e) Define the process by which the recommendations in section f) above will be communicated to the EAO, the Aboriginal Groups, and the Holder;
- f) Define the situations in which the IEM(s) will have the authority from the Holder to stop work on part or all of the Project if the IEM(s) determines that:
 - I. The Holder has not, or may have not, complied fully with the requirements of this Certificate; and
 - II. Stopping work is necessary to prevent or reduce Project-related adverse effects as determined by the IEM(s) or any IEM(s) support.
- g) Describe the process whereby the Holder, in consultation with Aboriginal Groups, EMPR, ENV, and FLNRORD may review the approved IEM(s) terms of engagement and submit a revised IEM(s) terms of engagement to the EAO for approval;
- h) Describe the provision of access to the Project Site so the IEM(s) can perform its duties, and the process by which that access will be provided;
- i) Defining a process and protocols for inviting the Aboriginal Group monitors required by Condition 17 (Aboriginal Group Monitor and Monitoring Plan) in site inspections, including identification of circumstances under which those opportunities may be limited (if any) and how, in those cases, information will be provided to Aboriginal Group monitors following those inspections;
- j) Outline the details of a Project phase completion report to be submitted to the EAO and Aboriginal Groups upon completion of each of Construction, Operations, Closure, and Post-Closure phases. The reports must be written by the IEM(s) and include, but is not necessarily limited to:
 - I. a record of all non-compliances with this Certificate;
 - II. a record of the recommendations made by the IEM(s) to the Holder to prevent or address any non-compliance with this Certificate;
 - III. a record of whether and how any such recommendations from the IEM(s) were implemented and the corresponding outcome of implementation;
 - IV. a record of all stop work orders issued to prevent or address a non-compliance with this Certificate and any Provincial or Federal legislation or authorization applicable to the Project;
 - V. assessment of the effectiveness of the mitigation measures for Construction, Operations, Closure and Post-Closure; and
 - VI. Recommendations on how to achieve and maintain compliance with the conditions of this Certificate for the next Project phase.

- k) A requirement that a detailed work plan for each phase of the Project be submitted to the EAO for approval prior to the start of the relevant Project phase. The work plans must describe the frequency of inspections and rationale, the manner in which IEM(s) identified non-compliances will be communicated to the EAO, Aboriginal Groups, and the Holder, and the format and frequency of IEM(s)' reports.

The purpose of the Independent Environmental Monitor – Terms of Engagement plan is also to define and outline processes for the following from Federal DS Conditions:

- 9.1 The Proponent shall retain, prior to construction, the services of an independent environmental monitor, who is a qualified individual as it pertains to environmental monitoring of mining projects in British Columbia, and is also a Qualified Professional, where such a qualification exists, to observe, record, and report on the implementation of the conditions set out in this Decision Statement during all phases of the Designated Project.
- 9.2 As part of the reporting requirement pursuant to condition 9.1, the independent environmental monitor shall advise the Proponent, the Agency and Aboriginal groups if, in their view, the activities do not comply with the conditions set out in this Decision Statement. The independent environmental monitor shall also advise the Proponent, the Agency and Aboriginal groups whether measures should be taken in respect to these activities.
- 9.3 The Proponent shall require the independent environmental monitor to prepare reports at a frequency determined in consultation with the Agency and relevant authorities that include:
- 9.3.1 a description, including through photo evidence, of the Designated Project activities that occurred and the mitigation measures that were applied during the period covered by the report; and
- 9.3.2 a description, including through photo evidence, of occurrence(s) of non-compliance related to the implementation of conditions set out in this this Decision Statement observed during the period covered by the report, including:
- 9.3.2.1 the date of the occurrence(s) of non-compliance;
- 9.3.2.2 whether Designated Project activities were changed or stopped as a result of the occurrence(s) of non-compliance;
- 9.3.2.3 how the occurrence(s) of non-compliance was or were corrected by the Proponent and the date that the corrective action(s) was or were completed by the Proponent; and
- 9.3.2.4 if any, the status of pending occurrences of non-compliance that have not been corrected yet by the Proponent and a description of any adverse environmental effects associated with the occurrences of non-compliance.
- 9.4 The Proponent shall require the independent environmental monitor to provide the reports referred to in condition 9.3 to the Agency, Aboriginal groups and relevant federal authorities within 10 days of their production. The Proponent shall require the independent environmental monitor to retain the reports referred to in condition 9.3 until the end of decommissioning.
- 9.5 The Proponent shall require the independent environmental monitor to report all occurrence(s) of non-compliance observed by the independent environmental monitor directly to the Agency, Aboriginal groups and relevant federal authorities within 48 hours of the observation of occurrence(s) of non-compliance.

- 12.1 The Proponent shall maintain all records relevant to the implementation of the conditions set out in this Decision Statement. The Proponent shall retain the records and make them available to the Agency throughout construction and operation and for 25 years following the end of decommissioning of the Designated Project. The Proponent shall provide the aforementioned records to the Agency upon demand within a timeframe specified by the Agency.
- 12.2 The Proponent shall retain all records referred to in condition 12.1 at a facility in Canada and shall provide the address of the facility to the Agency. The Proponent shall notify the Agency at least 30 days prior to any change to the physical location of the facility where the records are retained, and shall provide to the Agency the address of the new location.
- 12.3 The Proponent shall notify the Agency of change(s) to the contact information of the Proponent included in the Decision Statement.

3.1 Objectives

The objectives of this IEM –TOE is to:

- Provide clear procedures and measures to operationalize the IEM requirements from both the Federal Decision Statement and the Provincial EAC to manage construction-related environmental impacts and implement mitigations from all of the Environmental Management Plans;
- Identify key roles and responsibilities associated with environmental management; and
- Establish communication protocols to ensure information is shared with stakeholders and government agencies promptly and as required by relevant authorizations.

3.2 Scope

The scope of this IEM – TOE includes all Project activities included in EAC M19-01 and the Federal DS Conditions.

4. THE ROLE AND RESPONSIBILITIES OF THE IEM(S)

The role and responsibilities of the IEM are:

- To inspect construction related activities to verify whether the project is developed in accordance with regulatory requirements (EAC, associated management plans (MPs) and Federal CEAA DS).
- The IEM acts as an independent and neutral observer while inspecting, and documenting project activities, through information requests directly to BW Gold and summarizing compliance and non-compliances Certificate holder/proponent as per the steps outlined in Figure 9-2: Process for Communicating and Resolving Non-compliances on the Project.
- The IEM is expected to communicate directly with EAO compliance and enforcement (C&E), IAAC C&E, Aboriginal Groups and the BW Gold.
- The IEM will report observations back to Aboriginal Groups and the Environmental Assessment Office (EAO) Compliance and Enforcement (C&E), Impact Assessment Agency of Canada (IAAC) C&E and the Certificate holder/proponent at the same time. The IEM recognizes the importance of effective communications with all parties involved in the Project to facilitate a culture of open dialogue and proactive environmental best practice.
- While required to communicate matters of non-compliance as per Table 10-1: Criteria to Be Used to Assess and Report the Severity of Environmental Issues to the appropriate regulatory agencies and First Nations within 48 hours as per the federal DS, any matter requiring immediate attention where a delay in reporting may cause additional environmental impacts, will be identified to the Proponent's team as soon as feasible, and summarized to the broader group within 48 hours as required.
- The IEM team will develop an in depth understanding of the Certified Project Description, Schedule B Table of Commitments, CEAA DS, EMS, and associated MPs, and proposed construction practices. The IEM will develop a comprehensive checklist system to direct observation activities and identify potential matters of non-compliance. The preliminary list of MPs under the IEMs review are:
 - Accidents and Malfunctions Administration and Communication Plan;
 - Air Quality and Dust Management Plan;
 - Archaeological Management and Impact Mitigation Plan;
 - Caribou Mitigation and Monitoring Plan;
 - Chemicals and Materials Storage, Transfer, and Handling Plan;
 - Construction Environmental Management Plan (CEMP) ;
 - Cultural and Spiritual Resources Management Plan;
 - Cyanide Management Plan;
 - Discharge Management Plan;
 - Fuel Management and Spill Control Plan;
 - Invasive Plant Management Plan;
 - Metal Leaching/Acid Rock Drainage Management Plan;
 - Mine Emergency Response Plan;
 - Mine Site Traffic Control Plan;
 - Mine Site Water Management Plan;

- Noise and Vibration Effects Monitoring Plan;
- Soil Management Plan;
- Surface Erosion Prevention and Sediment Control Plan (SEPSCP);
- Tenure Holder Communication and Mitigation Plan;
- Vegetation Management Plan;
- Waste (Refuse and Emissions) Management Plan;
- Wetland Management and Offsetting Plan; and
- Wildlife Mitigation and Monitoring Plan.

Note: This list may not constitute a complete listing and BW Gold will work with the IEM to ensure that any additional management plans are provided to the IEM and are included in inspections.

- The IEM will report applicable environmental incidents as per Table 10-1: Criteria to Be Used to Assess and Report the Severity of Environmental Issues and using Table 10-3: Contact Information within 24 hours upon direct observation by the IEM team. Incidents observed/documented by any contractor should be reported to the Certificate holder/proponent, who will then provide to the appropriate regulatory agencies, Aboriginal Groups and the IEM team as required.
- The IEM will review all incident reports provided by the Certificate holder/proponent or contractors, in a timely manner, providing advice as required to the Regulators or other parties as deemed necessary. Environmental Incidents will be summarized in regular IEM reports.

5. ITEM AND IEM SUPPORT STAFF QUALIFICATIONS

The IEM role is required to be filled by Qualified Professional(s), unless otherwise approved by the EAO, with a minimum of five years' experience in monitoring construction and environmental mitigation for major mining projects in British Columbia.

Other persons may assist the IEM with determining compliance with the EAC, however, any findings and/or data reported must be verified and approved by the IEM prior to reporting or actions being undertaken.

No later than 60 days prior to the planned commencement of Construction, the Holder must submit to the EAO and Aboriginal Groups for review the name, organization, qualifications and relevant experience of the proposed IEM(s) and the IEM(s) terms of engagement.

The Holder must not start Construction until the selection of the IEM(s) and the terms of engagement have been approved by the EAO.

BW Gold in consultation with Aboriginal Groups, have engaged EDI Environmental Dynamics Inc. (EDI) as the IEM team. EDI will provide a Lead IEM and IEM support team for the duration of construction, operations and closure and post-closure phases. Lead IEMs are Leslie Chamberlist, PAg, CPESC, and Eric O'Bryan, RPBio. The Lead IEMs are well versed in defining the IEM role and implementing the IEM program specific to the EAC and DS conditions, understand expectations of EAO/IAAC, and will provide opportunity for Aboriginal Group Monitor involvement.

6. NATURE AND FREQUENCY OF MONITORING AND ACCESS TO SITE FOR IEM

Monitoring will be scheduled in accordance with the project schedule outlined in Section 0. The IEM will work with BW Gold. and Aboriginal Nation(s) through monthly planning meetings (to be scheduled) to determine which project execution activities present the greatest level of risks to valued ecosystem components (VEC) and sensitive environmental features on the project site and confirm visit dates and IEM participants. It is anticipated that the frequency, length, and nature of visits will vary throughout the different phases of the project, however, BW Gold Inc. anticipates that the IEM will be on site for EAC/Federal DS compliance inspections once per month (on average) and likely no more than 16 visits per year (for budgetary constraint purposes).

The nature of the inspections is likely to consist of:

- Pre-scheduling visits with BW Gold. based on the project schedule and to involve Aboriginal Group monitors (where possible and available).
- Putting together information requests (IRs) to complete desktop reviews prior to on site verification visits to be informed of status of project activities to make best use of time on site.
- On-site field inspections including photo documentation, and note taking to develop inspection summary reports.
- On-site interviews with relevant project staff where additional information is required beyond field observation to determine compliance with EAC/Federal DS conditions and MP commitments.

Should the project enter a temporary suspension or care and maintenance period for any reason, IEM monitoring will continue to ensure compliance to EAC and DS conditions, however, the frequency of visits may be reduced depending on the potential risks present at site during that time. A workplan will be prepared outlining the anticipated changes in IEM inspection frequency and reporting and communication linkages.

7. ANTICIPATED PROJECT SCHEDULE

The Project will transition from detailed design and permitting to execution in the first quarter of 2022. The mining project will advance through the following phases:

- Construction (including Early Works);
- Operation;
- Closure; and
- Post-closure.

A preliminary Project schedule is presented in Table 7-1 - Project Schedule Overview. Initial construction will take approximately 18 to -24 months and assumes that Early Works will commence as early as Q1 2022. Operation may commence by Q4 2023. Project Operation is also expected to include two ramp up phases between Y6 and Y10, and another between Y11 and Y18, and there are discrete construction activities associated with both production ramp ups as indicated in Table 7-1.

Table 7-1: Project Schedule Overview

Year	Activities Proposed as Approved or Pending Approval by Permit/Authorization or Other Requirement(e.g., EAC plan approval)
Early Works (Authorized by <i>Mines Act</i> Permit M 246 and <i>Environmental Management Act</i> Permit 110602)	<ul style="list-style-type: none"> ■ Clear, grub and construct mine site roads. ■ Clear mine access borrow area and Southern Site C borrow area. ■ Clear TSF Site C starter dam footprint and borrow and preparation area. ■ Clear FWR footprint. ■ Clear the Low Grade Ore Stockpile footprint. ■ Clear Open Pit (20.6 ha of new disturbance). ■ Clear Upper Waste Stockpile site. ■ Clear explosives storage, truck shop, operations camp, and ready line and bulk fuel storage. ■ Clear, grub and construct plant site pad. ■ Clear, grub and construct the Mine Access Road (approximately 8 km located on the mine site). ■ Construct bridges for MAR and mine site roads.
Year -2 & Year -1 (Timing to be confirmed based on approvals)	<ul style="list-style-type: none"> ■ Clear and grub the footprints of all major mine components (pit, roads, stockpile base, TSF C starter dam, FWR, process plant, crushers). ■ Prepare for and commence infrastructure construction. ■ Strip sites for the waste and topsoil stockpiles. ■ Construct water diversion, WMP, and management structures. ■ Main Dam C – Excavation of cut-off-trench and initial fill placement (Year -2) followed by Main Dam C Stage 1 construction to 1,273 meters above sea level (masl). ■ TSF C Pond – Starter pond initiation at the diversion berm. ■ Construct mine site roads and haul road from the pit to the stockpiles, crusher, and tailings dam. ■ Establish construction camp, operations camp, and services. ■ Establish explosives storage facility. ■ Excavate construction borrow pit mined down to 1,510 masl bench and starter pit down to 1,610 masl bench. ■ Deliver construction rock to the process area for use in the conveyor pads and to Site C Dam. ■ Stockpile Low Grade Ore beginning in Year -1 on the ROM pad for use in mill commissioning. ■ Construct the Metals Water Treatment Plant (WTP). ■ Construct processing plant infrastructure – foundations, buildings, services. ■ Construct the transmission line, mine site substation, and electrical distribution system. ■ Energize site with electrical power from grid connection. ■ Install site security, communications, first aid and emergency response facilities. ■ Decommissioning of Exploration Access Road.

8. DETAILED WORK PLANS

As per Condition 12 (m) of the EAC, a detailed work plan for each phase of the Project will be submitted to the EAO for approval prior to the start of the relevant Project phase (Refer to Appendix A). The work plans will describe the typical frequency of IEM inspections and rationale, the procedure for communicating non-compliances to the EAO, Aboriginal Groups, and the Certificate Holder/proponent in accordance with Section 10.1 and will describe the format and frequency of IEM(s)' report both routine and incident related (described in Section 10.1). The format of the IEM reports will be agreed upon through consultation between the EAO, IAAC, Certificate Holder/proponent, and Aboriginal Groups. Regular meetings will be scheduled, likely on a bi-weekly basis, to inform all groups of the construction progress and planned activities, discuss the most recent IEM report and any non-compliances and status updates and documentation regarding efforts to rectify, previous non-compliances.

Should the project enter a temporary suspension or care and maintenance period for any reason, IEM monitoring will continue to ensure compliance to EAC and DS conditions, however, the frequency of visits may be reduced depending on the potential risks present at site during that time. A workplan will be prepared outlining the anticipated changes in IEM inspection frequency and reporting and communication linkages.

9. IEM STRUCTURE AND APPROACH

The IEM integration into the Project is depicted in Figure 9-1: IEM Organizational Communication Structure. As an independent inspector the IEM will communicate directly with BW Gold, Aboriginal Groups and Monitors and the regulators. Site inspection scheduling and information requests (desktop or in field) will be directed to BW Gold, while inspection and incident reporting will be directed and submitted to all parties at the same time. The IEM will confirm the reporting distribution list with all groups prior to the first site inspection. The distribution list may be updated from time to time as requested.

During field inspections, the IEM may direct communications and questions to the environmental monitors, Aboriginal Group Monitors, environmental managers and construction team as needed.

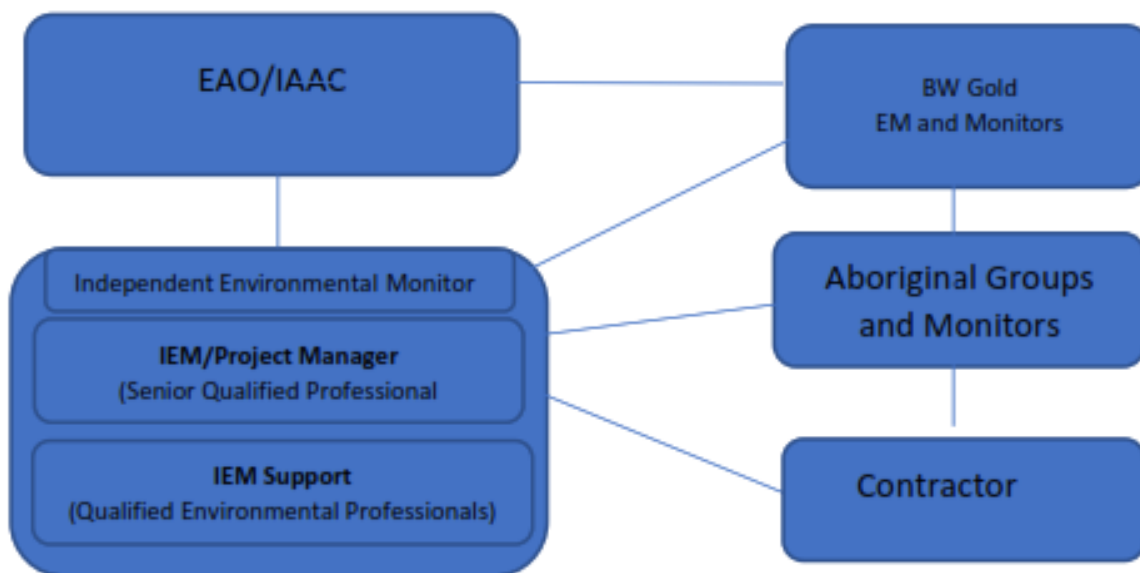


Figure 9-1: IEM Organizational Communication Structure

9.1 IEM Project Review Process

The IEM will complete desktop reviews before the field inspections as required and will encourage participation, when appropriate, of the Aboriginal Group Monitors, Environmental Manager and Construction Supervisors.

Project inspection and compliance review will be guided by the basic concepts outlined below:

1. **Observation:** Project activity has been observed and compliance or non-compliance has not been determined at the time of reporting.
2. **Compliance:** Complies with EA Certificate, CEAA DS and implements associated MPs appropriately.
3. **Non-compliance:** An activity that significantly deviates from the EAC or DS conditions, MPs and/or other Project authorizations and applicable legislation or regulations.
4. **Environmental Incident:** An activity that results in or has the potential to result in material environmental damage and does not comply fully with the EAC, DS, Project authorizations and/or relevant legislation. Specific examples include but are not limited to:
 - Spill to water or ground in exceedance of levels in Schedule 1 Spill Reporting Regulation including 200 kg or litres of any substance that can cause pollution;

- Unauthorized deposition of liquid or solid material not in accordance with *Fisheries Act*, or *Environmental Management Act*;
- Destruction of a wildlife feature such as an active bird nest or unauthorized destruction of wildlife in contravention of the BC *Wildlife Act* or *Species at Risk Act*; and
- Construction of project component not authorized in the Certified Project Description.

The Independent Environmental Monitor (IEM) has the authority to temporarily suspend work and notify the Holder upon discovering any EAC non-compliance or high-risk potential non-compliance.

9.2 IEM Communications and Reporting

The IEM will produce site inspection reports using mPro or equivalent (a software package) for each trip to site which will include results from the pre-visit desktop review, field inspections (photos and notes), information gathered from site staff and results from the previous site visit (refer to Appendix B). The reports will include any potential or actual non-compliances with the EAC or Federal DS as well as any environmental incidents identified during the visit including but not limited to the following:

- Summary of project activities observed and planned activities, if known;
- Inspection summary including environmental incidents, non-compliances and work in compliance including general observations with a record identification number for each item (e.g. observation, non-compliance);
- Date of the occurrence of incidents and non-compliances and reference to the applicable EAC, DS condition or MP commitment;
- Whether designated project activities were changed or stopped as a result of the occurrence;
- Root and contributing causes (if available – Note: as a compliance inspector it is not the responsibility of an IEM to investigate root causes, but root cause determination will be presented in reporting when available);
- Actions taken to immediately correct the situation and how the occurrence(s) of non-compliance was or were corrected by the proponent (visually observed by IEM or details provided by BW Gold)
- Date that the corrective action(s) was or were completed by the Proponent and subsequent compliance assessment and an evaluation of their effectiveness;
- Process and procedural development plan to prevent recurrence (as provided by BW Gold prior to report being issued); and
- If any, the status of pending occurrences of non-compliance that have not been corrected yet by the proponent and a description of any adverse environmental effects associated with the occurrences of non-compliance.

The IEM may also include supplemental information in the report as provided by BW Gold including:

- Plan for how BW Gold personnel with potential to interact with the situation have been briefed (as provided by BW Gold prior to report being issued); and
- Plan for any training on new process and procedures (as provided by BW Gold prior to report being issued).

IEM reports will be provided to the EAO, IAAC, BW Gold and participating Aboriginal Groups including the Aboriginal Group Monitors within 10 days of their production to align with CEAA DS Condition 9.4.

If non-compliances or environmental incidents were documented during the IEM inspections, they will be communicated to Aboriginal Groups, EAO, and the IAAC following the protocol outlined in Table 10-1: Criteria to Be Used to Assess and Report the Severity of Environmental Issues, and using contact information from Table 10-3: Contact Information (see Section 10). Formal reporting of an incident to external agency (where required by law) such as reportable spills by volume, are the responsibility of the Certificate holder/proponent or their contractor.

If the IEM identifies a non-compliance that warrants a temporary suspension of construction or operational activity (or an element thereof) BW Gold will follow the protocols outlined in Figure 9-2: Process for Communicating and Resolving Non-compliances on the Project

Non-compliance or Potential Non-compliance

The process to recommence work if a temporary suspension is invoked will be developed on a case-by-case basis. At a minimum, the mitigation plan prepared by BW Gold to recommence work will include:

- The location of the non-compliance, or possible non-compliance as identified by the IEM and rationale to the Environmental Manager or Environmental Monitors;
- The IEM and BW Gold will investigate the root cause of the non-compliance;
- BW Gold will document actions taken to immediately correct the situation (e.g., buffers/setback flagged, alternate timing implemented, alternate mitigation, QEP engagement, etc.);
- Process and procedure developed by BW Gold to prevent recurrence;
- Documentation by BW Gold that all personnel with potential to interact with the situation have been briefed and trained on any new process and procedures; and
- Provide an update to the IEM as soon as practical. If the field inspection is still active, the IEM will review and document the corrective measures and determine if conditions are in compliance.

Non-compliances documented during the IEM inspections will be communicated to Aboriginal Groups, EAO, and the IAAC following the incident categorization process and timelines in issues. If reporting of the same non-compliance is also required to other agencies, the Holder will complete that reporting independently of the reporting that the IEM will do to Aboriginal Groups, EAO and IAAC.

Environmental Incident reporting requires an expedited approach which is outlined in Section 10 below.

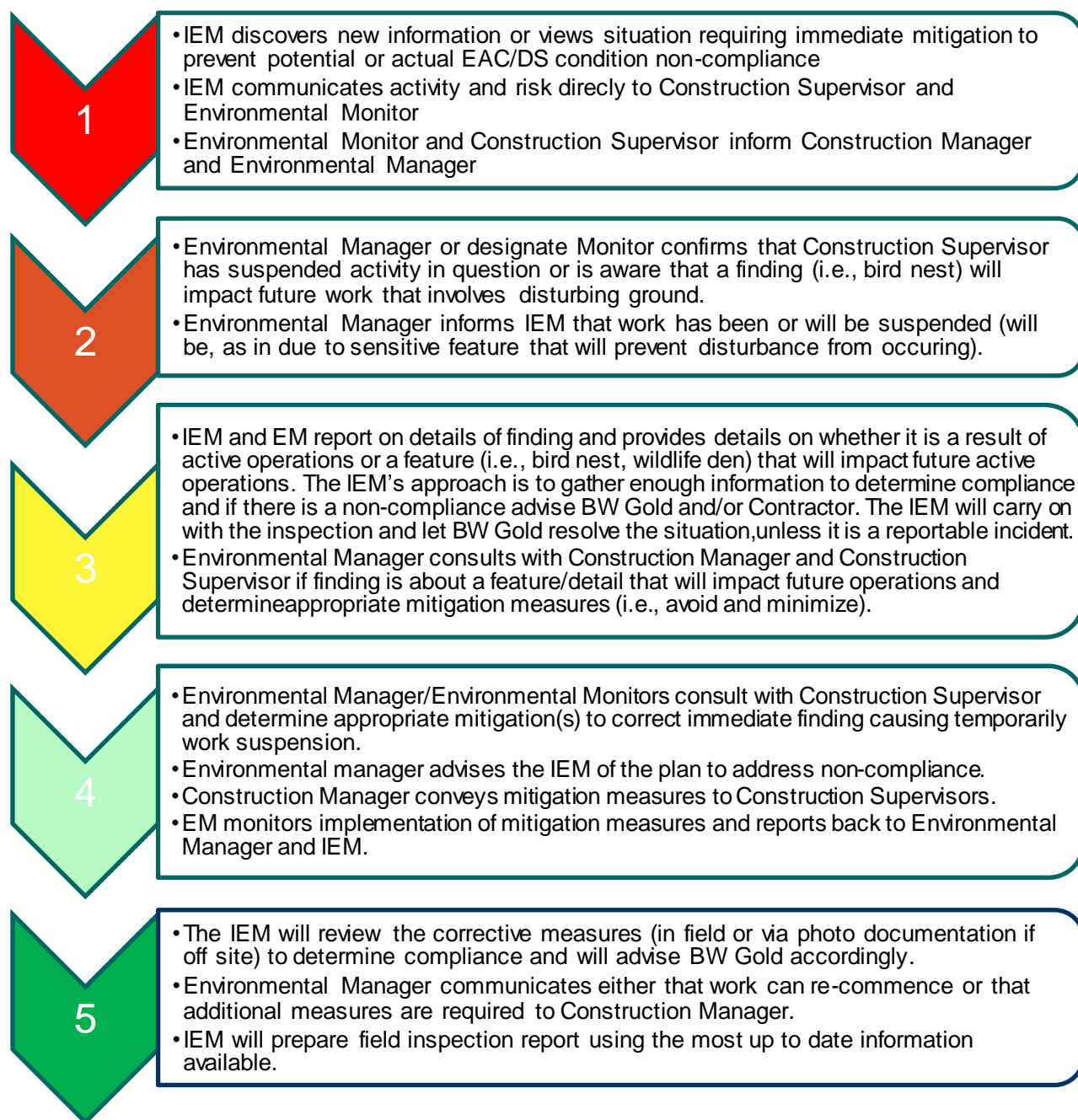


Figure 9-2: Process for Communicating and Resolving Non-compliances on the Project

10. ENVIRONMENTAL INCIDENT REVIEW AND REPORTING

Environmental Incidents are considered non-compliance events most likely associated with moderate or high impacts on the environment. If the IEM observes a non-compliance that is considered an Environmental Incident (or has the potential to be), the IEM will immediately notify BW Gold (by phone, radio or in person) and strive to collect the necessary information to appropriately inform the EAO, IAAC, Aboriginal Groups.

Notification of non-compliances and environmental incidents is ultimately the responsibility of BW Gold (Condition 7 of Schedule B) including those that trigger provincial or federal reporting (e.g. Spill Reporting Regulation, EMA, or Fisheries Act). However, the IEM may choose to report immediate findings to EAO, IAAC and Aboriginal Groups should notification by BW Gold be delayed. This will be done by email using the most recent contact list; and may be followed up with an Environmental Incident Form by the IEM when deemed necessary.

Table 10-1 has been adopted from MFLNRORD for IEM roles in southern BC and will be used by the IEM as a point of reference when reviewing and communicating the magnitude or the likelihood of recurrence of non-compliant events. Examples of non-compliant events have been provided in the table matrix based on experience, but it must be clear that the discretion will be up to the IEM as there are other factors that must be reviewed before magnitude and likelihood determinations can be made. The examples are meant to be used as a guide only. The IEM may choose to initiate discussion with EAO and IAAC for moderate/high magnitude non-compliances and will take direction from them as to what they deem appropriate.

The following definitions have been adopted from MOECCS compliance and enforcement policy and procedure (2019). The magnitude of impact to the environment (Low/Moderate/High) is defined as:

- **Low** – Non-compliance that does not result or is unlikely to result in any environmental impact;
- **Moderate** – Non-compliance resulting in a moderate, temporary impact on the environment or moderate, temporary impact to human health; and
- **High** – Non-compliance resulting in a significant impact to the environment or to human health (may be temporary or permanent) and likely triggers reportable offenses under provincial/federal legislation.

The likelihood of repeat on ongoing occurrences (Low/Moderate/High) is defined as:

- **Low** – In the IEM's opinion, indications of future and continual compliance is high, there are no previous occurrences of non-compliance and there is a good demonstration of awareness and capacity to meet the regulatory requirements;
- **Moderate** – Indications of future and ongoing compliance are unlikely, due to inconsistencies noted with mitigation implementation or lack of understanding of requirements; and
- **High** – No indication of future and ongoing compliance, with little or no demonstrated willingness or capacity to meet the regulatory requirement.

Table 10-1: Criteria to Be Used to Assess and Report the Severity of Environmental Issues

		Likelihood of Repeat/Ongoing Occurrence		
		High	Moderate	Low
Magnitude of Impact	High	Possible Stop Work Order issued to BW Gold; EAO/IAAC, Aboriginal Groups Notification within 24 hours. Event noted in IEM report, mitigative measures to be implemented by Certificate holder/proponent and follow-up by IEM required. E.g., deleterious material spill to water and where there are numerous sites presenting the same risk.	Possible Stop Work Order issued to BW Gold; EAO/IAAC, Aboriginal Groups Notification within 24 hours. Event noted in IEM report, mitigative measures to be implemented by Certificate holder/proponent and follow-up by IEM required. E.g., similar to high/high box; sediment ponds that trap wildlife causing death; lack of exclusion fencing or preventative measures.	Possible Stop Work Order issued to BW Gold; EAO/IAAC, Aboriginal Groups Notification within 24 hours. Event noted in IEM report, mitigative measures to be implemented by Certificate holder/proponent. e.g., Accidental discharge of effluent from sewage treatment or water treatment plants into freshwater.
	Moderate	Possible Stop Work Order issued to BW Gold; EAO/IAAC, Aboriginal Groups Notification within 24 hours. Event noted in IEM report, mitigative measures by Certificate holder/proponent and follow up by IEM required. E.g., tree clearing within nesting bird window without QEP pre-clearing review, possible wildlife mortality.	Event noted in IEM report, Certificate holder/proponent obligated to complete mitigative measures; follow-up by IEM required. E.g., similar to high/high box. Refuse left accessible to wildlife in camps or vehicles, animals become habituated.	Event noted in IEM report. e.g., accidental discharge of effluent from sewage treatment or water treatment plants to ground or low volumes into sensitive feature with minimal impact.
	Low	Event noted in IEM report, Certificate holder/proponent obligated to complete mitigative measures; follow-up by IEM required. E.g., minor chronic turbidity water quality impacts; waste receptacles require maintenance/locks.	Event noted in IEM report. E.g., facility doors not latching to prevent wildlife access; minor wildlife attractants on ground.	Event noted in IEM report. E.g., typically administrative related, annual reporting not submitted as per Certificate or MP.

Incidents that cause or have the potential to immediately cause negative impacts to the environment (such as a spill to water) are ranked high in the table. This is especially important for incidents involving waterbodies classified as Class 1 or 2 in the Yinka Dene Water Law (refer to Table 10-2). Conditions that have the potential to cause negative effects due to the duration or frequency of activity are also ranked high in the table (such as conducting earth works in wet areas near sensitive receptors without adequate runoff, erosion and sediment control in place). Observed issues with low potential for environmental impacts or low frequency (such as facility doors that do not properly latch) will be reported in the IEM summary report.

Environmental incidents will be reported to EAO, IAAC Aboriginal Groups and BW Gold within 24 hours (gray shaded cells, Table 10-1: Criteria to Be Used to Assess and Report the Severity of Environmental

Issues) using the contact information contained in Table 10-3: Contact Information. There may be events that do not fit these criteria, it will be up to the discretion of the IEM to elevate as needed. Low-risk issues will be reported in the routine IEM inspection report. All non-compliances must be reported to IAAC within 48 hours, as required in Condition 9.5 of the DS and this reporting will also follow the gray shaded cells, Table 10-1.

The IEM will communicate directly with BW Gold to verify the mitigative actions were completed. If necessary, the IEM will utilize the protocol identified in Section 10-1 to facilitate resolution and any escalation of a non-compliance.

Table 10-2: Carrier Sekani First Nations' Classification of Waterbodies Under YDWL

Class I	Class II	Class III
Waterbodies Potentially Affected by Mine Discharge		
<ul style="list-style-type: none"> ■ Tatelkuz Lake ■ Nechako Reservoir (Natalkuz Lake and Knew stubb Lake) 	<ul style="list-style-type: none"> ■ Chedakuz Creek 	<ul style="list-style-type: none"> ■ Davidson Creek
Waterbodies Potentially Affected by the Transmission Line		
<ul style="list-style-type: none"> ■ Nechako River ■ Stellako River ■ Fraser Lake ■ Big Bend Creek ■ Cabin Creek 	<ul style="list-style-type: none"> ■ Cut-off Creek ■ Fifteen Creek ■ Robertson Creek ■ Smith Creek ■ Targe Creek 	<ul style="list-style-type: none"> ■ Chedakuz Creek ■ Davidson Creek

Table 10-3: Contact Information for Non-Compliance and Incident Reporting

Person(s)	Organization	Role/Title	Phone	Email
Ryan Todd	Artemis Gold	VP ESR	778-375-3131	rtodd@artemisgoldinc.com
Travis Desormeaux	BW Gold	Manager, Environment	250-278-7788	tdesormeaux@artemisgoldinc.com
James Witzke	BW Gold	Manager,	250-600-3622	jwitzke@artemisgoldinc.com
Neil Gauthreau	LDN	Natural Resource Manager	250-992-3290	resources@lhooskuz.com
Laurie Vaughan	UFN	Director of Natural Resources/ Councillor	250-742-2090	lvaughan@ulkatcho.ca
Nadine Charleyboy	UFN	Director of Corporate Affairs	250-302-3875 ext. 221	ncharleyboy@ulkatcho.ca
Jessica Lowey	KES	Consultant representing LDN and UFN	250-908-7092	jessica@keefereco.com
Steve Ross	KES	Consultant representing LDN and UFN	250-908-2491	steve@keefereco.com
Mikayla Davis	KES	Consultant representing LDN and UFN	250-896-3437	mikayla@keefereco.com

Person(s)	Organization	Role/Title	Phone	Email
Mike Keefer	KES	Consultant representing LDN and UFN	250-420-7532	mike@keefereco.com
Kasandra Turbide	CSFNs, Saikuz	Land and Resources Manager	250-567-9293 ext. 220	land.manager@saikuz.com
Kirsten Chapman	CSFNs, Nadleh Whut'en	Land Referrals Coordinator	250-690-7211	referrals@nadleh.ca
Mike LaPointe	CSFNs, Stelat'en	GIS Manager/ Referrals Coordinator	250-699-8747	gis@stellatenfirstnation.ca
Terrance Paul	NFN	Natural Resources Manager	250-992-9085	referrals@nazkoband.ca
Florian Bergoin	NFN	Natural Resources Manager	250-992-9085	naturalresources@nazkoband.ca
Report all Polluters and Poachers BC (RAPP)	RAPP	NA	1-877-952-7277 (RAPP)	Conservation.Officer.Service@gov.bc.ca
BC EAO Compliance and Enforcement	EAO	NA	(250) 387-0131	eao.compliance@gov.bc.ca
BC ENV Authorizations Non-Compliance Reporting	ENV	NA	1-877-952-7277 (RAPP)	EnvironmentalCompliance@gov.bc.ca
Energy, Mines and Low Carbon Innovation	EMLI	NA		permrecl@gov.bc.ca https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/further-information/office-chief-inspector
Impact Assessment Agency of Canada/ Steve Fraser	IAAC	NA	613-301-6338	steven.fraser@iaac-aeic.gc.ca iaac.compliance-conformite.aeic@canada.ca
Environment and Climate Change Canada	ECCC	NA	1-800-668-6767	National Enforcement Headquarters
Department of Fisheries and Oceans Canada	DFO	NA	1-800-465-4336	DFO.ORR-ONS.MPO@dfo-mpo.gc.ca
Leslie Chamberlist	EDI	IEM Lead	250-981-6067	lchamberlist@edynamics.com
Eric O'Bryan	EDI	IEM Lead	250-981-6061	eobryan@edynamics.com

Note: This is not a comprehensive contact information table. Not all incidents/non-compliances will need to be reported to each ministerial contact listed in the table as it will depend on the magnitude, applicable permit or legislation and nature of each incident.

10.1 Conflict Resolution

In the event that a conflict should arise, or if required actions are not being implemented in an appropriate time frame to address non-compliance, the IEM will:

1. Re-evaluate the issue, confirm it is relevant and supported by the appropriate EAC and DS conditions and legislation.
 - a. The IEM may consult with senior EDI advisors, BW Gold, the EAO, IAAC, or Aboriginal Groups and their monitors including Chiefs and representatives from each Nation as necessary. This may also include senior executives from relevant Provincial Agencies as needed.
 - b. Based on initial re-evaluation, the IEM will either adjust their position or proceed to the next step.
2. Offer to arrange a meeting within 7 days with the relevant parties to initiate an open dialogue regarding the issue.
 - a. The IEM must clearly outline the issue or concern and potential measures to resolve the issue and allow others to participate in the discussion and express their respective positions.
 - b. The IEM will re-evaluate the issue and/or root cause of the issue as any new information is provided. The IEM will be prepared to adjust their position should the appropriate rationale be provided while adhering to the EAC/DS conditions established for the project.
 - c. If resolved, the appropriate documentation must be provided by the respective parties including meeting minutes and any revised plans/procedures with justification for revision.
 - d. Outcomes will be documented by the IEM within the monthly IEM summary report.

In the event the IEM cannot resolve the matter by following Steps 1 and 2, the IEM will advise the EAO, IAAC, EMC, and the Certificate holder/proponent as necessary, based on the nature of the issue.

In the event that the source of the conflict is in relation to the direct or imminent contravention of the EAC/DS conditions, and/or the issuance of a Stop Work Order, the IEM will defer the matter to the appropriate regulatory agency(s).

If the conflict is a result of a difference of opinion or interpretation as to a non-compliance or assessment of risk as would relate to the EAC/DS conditions, the IEM will document their concern in a formal memo and provide it to the Certificate holder/proponent, Aboriginal Groups and appropriate regulatory agency(s) including senior executives from relevant Provincial Agencies and applicable SDM(s) as needed. It will be incumbent upon the Certificate holder/proponent to further manage the risk and potential consequences.

All steps taken in relation to matters of compliance and/or resolving conflict will be documented by the IEM, and include a record of attendees, key concerns and communications, and outcomes of discussions.

10.2 Project Phase Completion Reporting

The IEM will require timely notification of the pending completion of a project phase, and requests two weeks of notice. The IEM team will rely on the Certificate holder/proponent to provide this advance notice and official date of phase completion in order to meet the timelines indicated below. At the completion of each project phase a summary report will be developed by the IEM and sent to the to the EAC/Federal DS Holder/Proponent and required Aboriginal Groups in draft form for an accuracy review no later than 90 days after the completion of the project phase. The reports will be reviewed by those parties over a period of 45 days and then the IEM will finalize and submit the report to the EAO C&E branch as well as the IAAC. The reports will include but not necessarily be limited to the following:

- a record of all non-compliances with the EAC and DS;

- a record of the recommendations made by the IEM(s) to the Holder/Proponent to prevent or address any non-compliance with the EAC/Federal DS;
- a record of whether and how any such recommendations from the IEM(s) and other parties were implemented and the corresponding outcome of implementation;
- a record of all stop work orders issued to prevent or address a non-compliance with the EAC and any Provincial or Federal legislation or authorization applicable to the Project;
- assessment of the effectiveness of the mitigation measures for Construction, Operations, Closure and Post-Closure; and
- Recommendations on how to achieve and maintain compliance with the conditions of the EAC and Federal DS for the next Project phase.

11. PROCESS AND PROTOCOLS FOR INVITING THE ABORIGINAL GROUP MONITORS (REQUIRED BY EAC CONDITION 17) TO ONSITE INSPECTIONS

The selection process of Aboriginal Group monitors is described in the EAC Aboriginal Group Engagement Plan (Section 6.1). This process included canvassing each Aboriginal Group for feedback on the potential candidate(s) and consequently inviting a representative of each Aboriginal Group to participate in an IEM meet and greet meeting and site visit.

The safety and training requirements for Aboriginal Monitors involved in IEM inspection activities will be managed by BW Gold Environmental Manager or designate. The Aboriginal Monitors will undergo all BW Gold – Blackwater Project Site Orientation training requirements as well as whatever mine site specific access training that may be required (e.g., driving in the mine, working from heights). All efforts will be undertaken to ensure that Aboriginal Group Monitors receive all training required to work safely while on site, however, there may be unforeseen situations where IEM verification activities include accessing higher risk areas on the project site where the Aboriginal Group Monitor may not have the necessary training to work safely. Under the rare situation where this is the case, the IEM will report back to the Aboriginal Group Monitor at their earliest opportunity summarizing their observations, findings, photos, etc., and reviewing the information together. This will both prevent any situations where the Aboriginal Monitor would be in a potentially unsafe or untrained situation while still ensuring information is passed on and reviewed. Another situation where it may not be appropriate for the Aboriginal Monitor (when and if they are acting as an employee of BW Gold) to participate in portions of an inspection may be if the IEM documents a non-compliance or incident that requires more in-depth investigation or discussion with the regulator or the IEM team. In these circumstances it may not be appropriate for the Aboriginal Monitor or other BW Gold staff to be present during all communications or meetings. However, all information related to an IEM investigation will be shared out as per Section 10 and this distribution will include the AGM's.

The means by which BW Gold will engage with Aboriginal Groups on the implementation of the IEM requirements is through the Environmental Monitoring Committee (EMC). Schedule A of the EMC Terms of Reference requires BW Gold to track the status of the implementation of all EAC conditions in a tracking table (EAC Condition Tracking Table) and to distribute this document to the EMC (which includes representatives of Aboriginal Groups).

12. PROCESS FOR REVIEWING THE TERMS OF ENGAGEMENT IN CONSULTATION WITH ABORIGINAL GROUPS, EMPR, ENV, AND FLNRORD PRIOR TO SUBMISSION TO EAO

The EAC/Federal DS Holder/Proponent has submitted the draft IEM – TOE to Aboriginal Nations for review and comment in accordance with the signed Participation Agreement (LDN/UFN) and the draft Participation Agreement for the CSFN. The draft IEM – TOE was provided to Aboriginal Nations, FLNRORD, ENV, and EMLI for review and comment concurrently.

13. COMPLIANCE OBLIGATIONS, GUIDELINES, AND BEST MANAGEMENT PRACTICES

A summary of key federal and provincial regulations in addition to the EAC and Federal DS requirements for the IEM to consider during site compliance verifications include and are presented in Tables 13-1 and 13-2.

13.1 Legislation or Regulations

13.1.1 Federal

Relevant federal legislation are presented in Table 13-1.

Table 13-1: Relevant Federal Legislation

Legislation	Responsible Agency	Description
<i>Canadian Environmental Protection Act, 1999</i>	Environment and Climate Change Canada (ECCC)	Aims at preventing pollution and protecting the environment and human health from the effects of deleterious substances.
<i>Explosives Act</i>	Natural Resources Canada	Regulates the manufacture, testing, acquisition, possession, sale, storage, transportation, import, and export of explosives and the use of fireworks.
<i>Fisheries Act</i>	Fisheries and Oceans Canada	Authorizes habitat alteration, disruption and destruction (HADD) of fish habitat and prohibits the deposit of deleterious substances into waters frequented by fish unless authorized by the Metal and Diamond Mining Effluent Regulations (MDMER).
<i>Migratory Birds Convention Act, 1994</i>	Environment and Climate Change Canada	Prohibits deposition of substances that are harmful to migratory birds in waters or in an area frequented by migratory birds and disturbance or destruction of migratory bird nests or shelters.
<i>Seeds Act</i>	Canadian Food Inspection Agency	Regulates grading of seed sold, imported, and exported in Canada and requires that seed is free of prohibited noxious weeds or disease and ensuring standards of purity.
<i>Species at Risk Act</i>	Environment and Climate Change Canada	Prevents Canadian aboriginal species, subspecies, and distinct populations from becoming extirpated or extinct, provides for the recovery of endangered or threatened species, and encourages the management of other species to prevent them from becoming at risk.
<i>Transportation of Dangerous Goods Act</i>	Transport Canada	Promotes public safety when dangerous goods are being handled, offered for transport or transported by road, rail, air, or water by establishing safety requirements.

13.1.2 Provincial

Relevant provincial legislation are presented in Table 13-2.

Table 13-2: Relevant Provincial Legislation

Legislation	Responsible Agency	Description
<i>Environmental Management Act</i>	Ministry of Environment and Climate Change Strategy	Authorizes discharges to water, land and air, storage/treatment of wastes, disposal of solid waste to the land. The Project received <i>Environmental Management Act</i> Permit 110603 on June 24, 2021, which authorizes discharge of treated stormwater effluent to ground from early stage construction activities.
<i>Forest Act</i>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Regulates Crown forest management, including tenures and harvest requirements.
<i>Forest and Range Practices Act</i>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Governs forest and range practices on Crown land during all stages of planning, road building, logging, reforestation and/or grazing, and establishes ungulate winter range.
<i>Heritage Conservation Act</i>	Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Protects and conserves heritage property on Crown and private land, including protection of archaeological sites.
<i>Integrated Pest Management Act</i>	Ministry of Environment and Climate Change Strategy	Regulates sale and use of pesticides, which are defined as a “micro-organism or material that is represented, sold, used or intended to be used to prevent, destroy, repel or mitigate a pest”.
<i>Mines Act</i>	Ministry of Energy, Mines and Low Carbon Innovation	The Act and Health, Safety and Reclamation Code for Mines in BC regulates mining activities, including mineral exploration, mine development, and reclamation and closure. The Project received <i>Mines Act</i> Permit M-246 on June 22, 2021 which authorizes early construction works.
<i>Transport of Dangerous Goods Act</i>	Ministry of Transportation and Infrastructure	Regulates the transportation of dangerous goods on BC highways and provincial ferry routes.
<i>Water Sustainability Act</i>	Ministry of Environment and Climate Change Strategy	Authorizes short-term water use, changes in and about a stream, water storage, withdrawals and diversions, and groundwater wells.
<i>Weed Control Act</i>	Ministry of Forests, Lands, Natural Resources Operation and Rural Development	Designates certain invasive plants as ‘noxious weeds’ and imposes a duty on all those occupying land in BC to control noxious weeds growing on their land.
<i>Wildfire Act</i>	Ministry of Forests, Lands, Natural Resources Operation and Rural Development	Manages wildfire risks and provides for recovery of costs associated with wildfire response.
<i>Wildlife Act</i>	Ministry of Forests, Lands, Natural Resources Operation and Rural Development	Governs protection of wildlife and wildlife habitat, and wildlife management, including alien species, angling, hunting, trapping and guide outfitting, and firearms, and designation of wildlife management areas and species at risk. Section 34 of the Act protects birds, eggs, and occupied nests from possession, molestation, injury, or destruction. Unoccupied nests of certain species are also protected under the Act.

13.1.3 Key Regulations

A summary of key federal and provincial regulations in addition to the EAC and Federal DS requirements for the IEM to consider during site compliance verifications include and are presented in Table 13-3.

Table 13-3: Summary of Key Applicable Regulations

Legislation	Enabling Statute	Description
Federal		
<i>Explosives Regulation</i>	<i>Explosives Act</i>	Regulates the safe and secure handling of explosives.
<i>Migratory Birds Regulations</i>	<i>Migratory Birds Convention Act, 1994</i>	Prohibits the disturbance or destruction of migratory bird nests or shelters.
<i>On-road Vehicle and Engine Emission Regulations</i>	<i>Canadian Environmental Protection Act, 1999</i>	Establishes emission standards for on-road vehicles including passenger cars, light trucks, motorcycles, and heavy-duty vehicles.
<i>Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations</i>	<i>Canadian Environmental Protection Act, 1999</i>	Regulates the storage of petroleum products.
<i>Transportation of Dangerous Goods Regulations</i>	<i>Transportation of Dangerous Goods Act</i>	Promotes safety when dangerous goods are being handled, offered for transport.
Provincial		
BC Building Code 2018	<i>Ministry of Municipal Affairs and Housing</i>	The BC Building Code regulates new construction, building alterations, repairs and demolitions are completed.
BC Fire Code 2018	<i>Ministry of Municipal Affairs and Housing</i>	Regulates construction, use and demolition of buildings and facilities and design, construction and use of specific elements of facilities related to certain fire hazards, and protection measures for the current or intended use of buildings.
<i>Contaminated Sites Regulation</i>	<i>Environmental Management Act</i>	Provides regulations for contaminated site determination, remediation standards, and planning.
<i>Forest Planning and Practices Regulation</i>	<i>Forest and Range Practices Act</i>	Establishes riparian area, soils, and wildlife objectives and practice requirements.
<i>Hazardous Waste Regulation</i>	<i>Environmental Management Act</i>	Addresses the registration of hazardous waste, requirements for hazardous waste facilities containers for storing and transporting hazardous wastes, licensing of hazardous waste carriers, and requirements for specific types of hazardous waste.
<i>Integrated Pest Management Regulation</i>	<i>Integrated Pest Management Act</i>	Regulates the storage, sale, transportation, and use of pesticides for pest control.
<i>Invasive Plants Regulation</i>	<i>Forest and Range Practices Act</i>	Identifies invasive plant species in British Columbia.

Legislation	Enabling Statute	Description
<i>Occupational Health and Safety Regulation</i>	<i>Workers Compensation Act</i>	Promotes occupational health and safety and protects workers and other persons present at workplaces from work-related risks to their health, safety, and well-being.
<i>Open burning Smoke Control Regulation</i>	<i>Environmental Management Act</i>	Governs the burning of vegetative material associated with a range of activities, such as land clearing, forestry operations, and agriculture.
<i>Petroleum Storage and Distribution Facilities Storm Water Regulation</i>	<i>Environmental Management Act</i>	Applies to every petroleum storage facility in British Columbia and regulates the discharge of a hydrocarbon contaminated stormwater into the environment.
<i>Spill Contingency Planning Regulation</i>	<i>Environmental Management Act</i>	Places a proactive obligation on regulated persons in order to demonstrate their capability to respond to a spill of a prescribed quantity.
<i>Spill Preparedness Response and Recovery Regulation</i>	<i>Environmental Management Act</i>	Prescribes when spill contingency plans must be updated, reviewed, and tested.
<i>Spill Reporting Regulation</i>	<i>Environmental Management Act</i>	Establishes a protocol for reporting the unauthorized release of substances into the environment as well as a schedule detailing reportable amounts for certain substances.
<i>Transport of Dangerous Goods Regulation</i>	<i>Transport of Dangerous Goods Act</i>	Promotes safety when dangerous goods are being handled, offered for transport on highways in British Columbia.
<i>Weed Control Regulation</i>	<i>Weed Control Act</i>	Classifies weeds as noxious within British Columbia and regulates the practices to control noxious weeds.
<i>Wildfire Regulation</i>	<i>Wildfire Act</i>	Describes obligations with respect to prevention and control as well as campfires and open fire regulations.

13.2 Guidelines and Best Management Practices

In addition to relevant legislation and regulations, a number of best management practices and guidelines should be considered during the IEM site verification visits as potentially supporting management plans. These documents include:

- *A Compendium of Wildlife Guidelines for Industrial Development Projects in the North Area, British Columbia* (FLNRO 2014);
- *A Field Guide to Fuel Handling, Transportation, and Storage* (BC MWLAP 2002)
<http://www2.gov.bc.ca/gov/DownloadAsset?assetId=520793AF081F4F5DBD6BAE39BC79BC7F>;
- *Fish-stream Crossing Guidebook* (FLNRO 2012);
- *Terms and Conditions for Changes in and about a Stream Specific by MOE Habitat Officers, Omineca Region* (FLNRO 2004);
- *BC Ambient Air Quality Objectives and Standards* (BC MOE 2013)
<http://www.bcairquality.ca/reports/pdfs/aqotable.pdf>;

- *BC Water Quality Guidelines* (BC MOE 2014) <http://www2.gov.bc.ca/gov/topic.page?id=044DD64C7E24415D83D07430964113C9>;
- *BC Hazardous Waste Legislation Guide* (BC MOE 2005) <http://www2.gov.bc.ca/gov/DownloadAsset?assetId=51C5BF7BBC8140FA93CE2C9AEABBC042>;
- *BC Ministry of Transportation and Infrastructure Traffic Control Manual for Work on Roadways* (BC MOTI 1999) http://www.th.gov.bc.ca/publications/eng_publications/TCM/Traffic_Control_Manual.htm;
- *Best Management Practices for Amphibian and Reptile Salvages in British Columbia*. (FLNRO 2016);
- *Best Management Practices for Bats in BC* (Holroyd and Craig, 2016);
- *Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia* (BC MOE 2005);
- *British Columbia Field Sampling Manual* (BC MWLAP 2003) http://www.env.gov.bc.ca/epd/wamr/labsys/field_man_pdfs/fld_man_03.pdf;
- *CCME Environmental Quality Guidelines for the Protection of Aquatic Life* (CCME 2011) <http://cegg-rcqe.ccme.ca/en/index.html>;
- *Environmental Code of Practice for Metal Mines* (Environment Canada 2012a) <http://www.ec.gc.ca/lcpe-cepa/documents/codes/mm/mm-eng.pdf>;
- *Forested Wetlands-Functions, Benefits, and the Use of Best Management Practices* (Welsch et al. 1995);
- *Guidelines for Metal Leaching and Acid Rock Drainage at Mine Sites in British Columbia* (Price and Errington 1998) <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ML-ARD/Pages/Guidelines.aspx>;
- *Interim Code of Practice: Temporary Stream Crossings* (DFO 2020);
- *Invasive Alien Plant Program: Reference Guide* (BC MOFR 2010a) <http://www.for.gov.bc.ca/hra/plants/RefGuide.htm>;
- *Management Plan for the Western Toad (Anaxyrus boreas) in British Columbia* (2014);
- *Pest Management Plan for Invasive Alien Plants on Provincial Crown Lands in Central and Northern British Columbia* (BC MOFR 2010c) http://www.th.gov.bc.ca/invasiveplant/documents/Pest_Management_Plan_Forestry.pdf;
- *Policy for Metal Leaching and Acid Rock Drainage in British Columbia* (BC MEM and BC MELP 1998) <http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/ML-ARD/Pages/Policy.aspx>;
- *Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials* (Price 2009) <http://www.abandoned-mines.org/pdfs/MENDPredictionManual-Jan05.pdf>;
- *Riparian Management Area Guidebook* (BC MOF 1995) <https://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/riparian/rip-toc.htm>;
- *Wetland Ways: Interim Guidelines for Wetland Protection and Conservation in British Columbia* (Cox and Cullington 2009); and
- *Workers' Compensation Board of BC Engineering Section Report: Construction Noise* (WCB 2000) <https://www2.worksafebc.com/pdfs/hearing/ConstructionNoise.pdf>.

14. RECORD KEEPING

The IEM will be responsible for ensuring reports are prepared in accordance with Section 1. Records will be maintained and retained in accordance with Conditions 9.4, 12.1, and 12.2 of the federal DS, respectively. This includes maintaining all records relevant to the implementation of the conditions set out in the Federal DS decision statement. BW Gold must retain records and make them available to the agency throughout construction and operation and for 25 years following the end of decommissioning.

BW Gold shall also retain records at a facility in Canada and shall provide the address of the facility to the agency. The proponent shall notify the agency at least 30 days prior to any change to the physical location of the facility where the records are retained and provide the agency with the new address. The records will be made available upon request.

15. REFERENCES

Legislation

Canadian Environmental Assessment Act, 2012, SC 2012, c. 19, s. 52.

Canadian Environmental Protection Act, 1999, SC 1999, c. 33.

Environmental Assessment Act, SBC 2002, c. 43.

Environmental Management Act, SBC 2003, c. 53.

Explosives Act, RSC 1985, c. E-17.

Fisheries Act, RSC 1985, c. F-14.

Forest Act, RSBC 1996, c. 157.

Forest and Range Practices Act, SBC 2002, c. 69.

Heritage Conservation Act, RSBC 1996, c. 187.

Integrated Pest Management Act, SBC 2003, c. 58.

Migratory Birds Convention Act, 1994, SC 1994, c. 22.

Mines Act, RSBC 1996, c. 293.

Seeds Act, RSC 1985, c. S-8.

Species at Risk Act, SC 2002, c. 29.

Transport of Dangerous Goods Act, RSBC 1996, c. 458.

Transportation of Dangerous Goods Act, 1992, SC 1992, c. 34.

Water Sustainability Act, SBC 2014, c. 15.

Weed Control Act, RSBC 1996, c. 487.

Wildfire Act, SBC 2004, c. 31.

Wildlife Act, RSBC 1996, c. 488.

Regulations

BC Building Code 2018.

BC Fire Code 2018.

Contaminated Sites Regulation, BC Reg. 375/96.

Explosives Regulations, 2013, SOR/2013-211.

Forest Planning and Practices Regulation, BC Reg. 14/2004.

Hazardous Waste Regulation, BC Reg. 63/88.

Integrated Pest Management Regulation, BC Reg. 604/2004.

Invasive Plants Regulation, BC Reg. 18/2004.

Migratory Birds Regulations, CRC, c. 1035.

Occupational Health and Safety Regulation, BC Reg. 296/97.

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Guidelines and Best Management Practices

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APPENDIX A DETAILED WORK PLAN

March 16, 2022

EDI Project No: 21P0403

Artemis Gold Inc.
595 Burrard Street, Suite 3083
Vancouver, BC V7X 1L3

Attention: Travis Desormeaux, Environmental Manager

RE: Blackwater Gold Project – EAC M19-01 Condition 12 (m): IEM Workplan for Construction Phase (Draft)

INTRODUCTION

The Blackwater Gold Project (Project) received Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019 under the 2002 *Environmental Assessment Act* and a Decision Statement on April 15, 2019 under the *Canadian Environmental Assessment Act* (2012) approving the Project with conditions. Blackwater Gold Mine is an open pit gold and silver mine with associated ore processing facilities located 110 kilometres southwest of Vanderhoof in central British Columbia.

REGULATORY REQUIREMENT

Environmental Assessment Certificate (EAC) M19-01 Condition 12 (m) requires the certificate holder to develop a detailed IEM workplan for each phase of the Project which is to be submitted to environmental Assessment Office (EAO) for approval prior to the start of the relevant Project phase. BW Gold is providing this draft version of the IEM workplan for the construction phase of the Project. The workplan closely mirrors the details provided in the draft Terms of Engagement (TOE) required by Condition 12 of the EAC and Condition 9 of the Federal Decision Statement (DS) which is currently under review by Aboriginal Groups, EAO and IAAC.

The workplan must describe the following at a minimum:

- frequency of inspections and rationale;
- the manner in which IEM(s) identified non-compliances will be communicated to the EAO, Aboriginal Groups, and the Certificate Holder; and
- the format and frequency of IEM reports.



PROJECT DETAILS AND DRAFT SCHEDULE

BW Gold intends to develop an open pit gold and silver mine as described in Schedule A of the EAC (Figure 1). Early Works construction (as also permitted under authorized by *Mines Act* M 246 and *Environmental Management Act* permit 110602) is scheduled to start in April 2022. Early Work activities will include forest clearing, earthworks (grubbing and stripping) and anticipated construction of the following infrastructure components:

- Clear, grub and construct plant site pad

Pending additional wetlands baseline surveys (required by EAC condition 24) planned for June/July 2022, BW Gold will be updating the Wetlands Offsetting and Management Plan and pending approval by EAO, early work activities may be revised to also include forest clearing, earthworks (grubbing and stripping) and anticipated construction of the following infrastructure components:

- Borrow area and Southern Site C borrow area
- TSF Site C starter dam footprint, borrow and preparation area
- Clearing of freshwater reservoir footprint
- Clear the high- and low-grade ore stockpile footprints
- Clear open pit (20.6 ha of new disturbance)
- Clear upper overburden dump site
- Clear explosives storage, truck shop, operations camp, and ready line and bulk fuel storage
- Clear, grub and construct plant site pad
- Mine Access Road (8 km located on the mine site) and Mine Site Roads

Table 7-1 Project Schedule Overview in the draft ToE outlines anticipated construction activities for Year 1 (2023) and Year 2 (2024) and includes:

- Clear and grub the initial pit phases, the ex-pit haul road, and portions of the ore stockpiles and upper overburden piles
- Construct mine site roads and water management structures
- Prepare sites for process plant, crushers, stockpile pads and Site C tailings dam construction
- Deliver construction rockfill to Site C tailings dam (continues until Y16).
- Energize site with electrical power from grid connection.
- Construct water diversion and management structures and starter dam for TSF
- Construct haul road from the pit to the stockpiles, crusher, and tailings dam
- Initial grade control delineation drilling to 1,580 bench of starter pit
- Establish construction camp and services, partially dismantle exploration camp
- Establish explosives magazine
- Construction borrow pit mined down to 1,510 bench



- Starter pit mined down to 1,610 bench
- Delivery of construction rock to the process area for use in the conveyor pads
- Delivery of construction rock to the Site C tailings dam
- Stockpile high-grade ore on the ROM pad and high-grade ore stockpile for use in mill commissioning
- Stockpile low-grade ore in the low-grade stockpile for storage until the end of mine life
- Deliver excess mined overburden to the upper overburden stockpile
- Construct the water treatment plant
- Construct the mine plant and processing infrastructure
- Commission process plant and first delivery of tailings to TSF

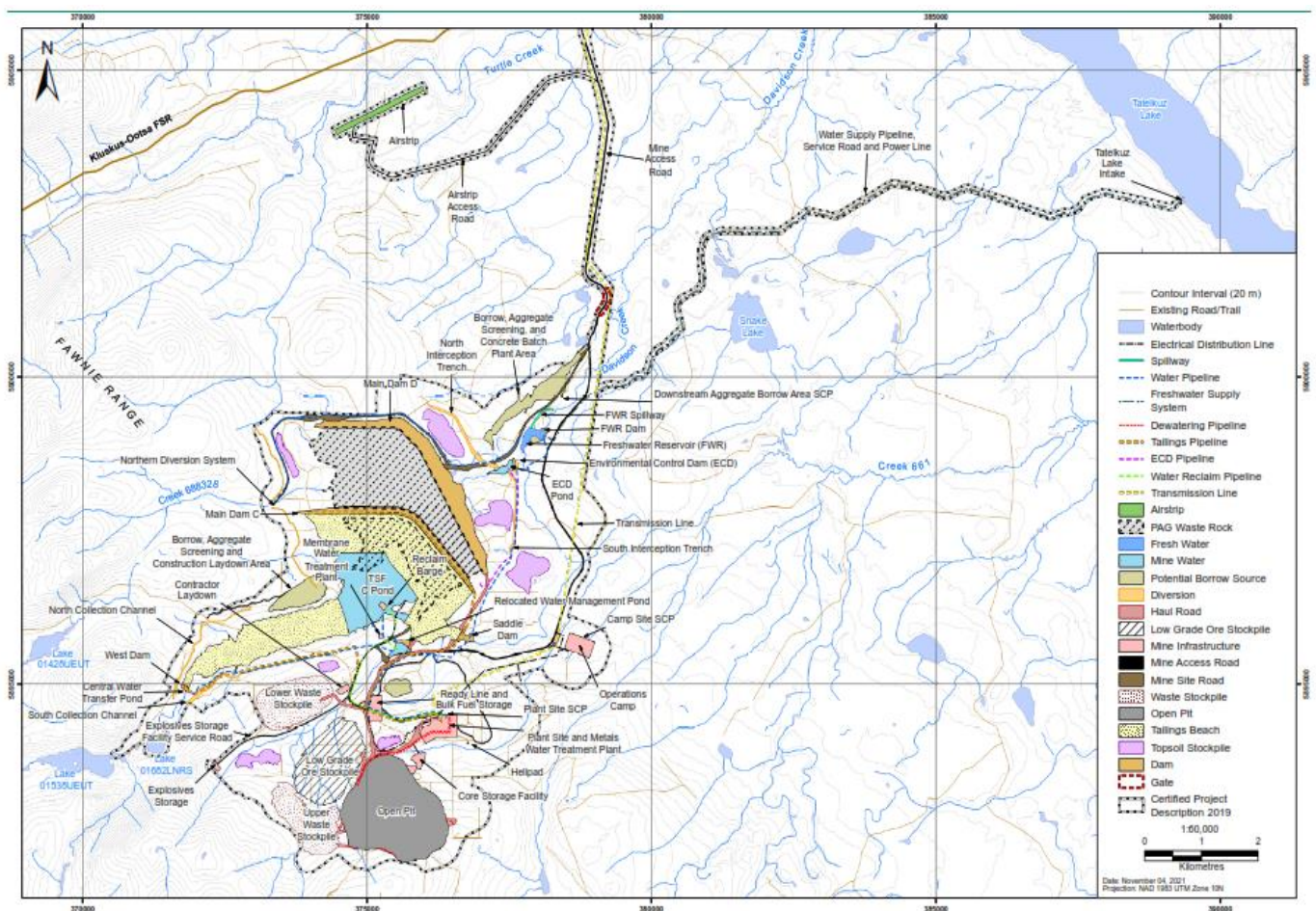


Figure 1. Mine Plan Overview and Infrastructure Components.

The Project Schedule Overview is considered preliminary and will be updated by BW Gold as construction progresses and detailed designs are finalized. Updated construction schedules will be provided to the IEM in a timely manner.



IEM INSPECTIONS

The IEM will complete a pre-construction site visit in April of 2022 to gain an understanding of the access, landscape, site layout and proposed infrastructure siting, sensitive features and proposed construction plans.

Once construction starts the IEM will complete a minimum of one inspection per month. An increase in IEM inspections will occur as needed to follow up on non-compliance events, review corrective actions implemented or if the IEM feels there is an elevated risk of non-compliance associated with active construction practices. Reduced inspection effort may be reasonable during lower-risk periods in the winter or during low construction activity (limited new work and effective stable mitigation in place).

The IEM will initiate project review prior to construction focused on pre-construction commitments and conditions as outlined in the EAC and associated Management Plans (MP).

IEM field inspections will start around mid-April after construction is initiated. The timing of each inspection may vary to accommodate participation of Aboriginal Group Monitors and will be influenced by the level of construction activity or the level of urgency to review outstanding non-compliance events. Where possible the IEM will provide at least 7 days advanced notice to BW Gold so that Aboriginal Group Monitor participation can be scheduled.

The IEM will work with BW Gold and Aboriginal Nation(s) through a bi-weekly planning meeting (to be scheduled) to determine which project execution activities present the greatest level of risks to valued ecosystem components (VEC) and sensitive environmental features on the project site and confirm visit dates and IEM participants.

The nature of the IEM inspection and review will consist of:

- Pre-scheduling visits with BW Gold based on the project schedule and to involve Aboriginal Group Monitors.
- Putting together information requests (IRs) to complete desktop reviews prior to on site inspections to be informed of status of project activities to make best use of time on site.
- Field inspections of active and inactive construction areas including photo documentation and note taking to develop inspection summary reports.
- On-site interviews with relevant project staff where additional information is required beyond field observations to determine compliance with EAC/Federal DS conditions and MP commitments.

NON-COMPLIANCE COMMUNICATION

Non-compliances are determined by reviewing site practices and evaluating alignment with EAC, DS conditions and MP commitments. The process of communicating non-compliance events will depend on the magnitude of the occurrence and will be based on the matrix provided in Table 10-1 of the draft ToE. Non-compliance events that are determined to be of low impact will be reported in the monthly IEM inspection report which will be distributed to all parties at the same time within 10 days of production. The IEM will



complete a post-inspection meeting on site with BW Gold and Aboriginal Group Monitors to provide a summary of the inspection and outline all confirmed non-compliances at that time. Further review of project documentation will be completed by the IEM post-inspection to review all observations noted during the inspection.

If the IEM determines there to be a non-compliance with the EAC of moderate or high magnitude, regardless of the likelihood of reoccurrence, or what the IEM determines to be an Environmental Incident (triggers other provincial or federal reporting under regulation) the IEM will immediately (within hours) notify BW Gold (by phone, radio or in person).

Notification of non-compliances and Environmental Incidents is ultimately the responsibility of BW Gold (Condition 7 of Schedule B) including those that trigger provincial or federal reporting. BW Gold will communicate the non-compliance to EAO, Aboriginal Groups and Aboriginal Group Monitor within 24 hours. However, the IEM may choose to report immediate findings should notification by BW Gold be delayed. This will be done by email or phone using the most recent contact list in the ToE and may be followed up with an Environmental Incident Form by the IEM if deemed necessary. Aboriginal Groups prefer notification by phone.

The following definitions have been adopted from MOECCS compliance and enforcement policy and procedure (2019). The magnitude of impact to the environment (Low/Moderate/High) is defined as:

Low - Non-compliance that does not result or is unlikely to result in any environmental impact;

Moderate - Non-compliance resulting in a moderate, temporary impact on the environment or moderate, temporary impact to human health; and

High – Non-compliance resulting in a significant impact to the environment or to human health (may be temporary or permanent) and likely triggers reportable offenses under provincial/federal legislation.

The likelihood of repeat on ongoing occurrences (Low/Moderate/High) is defined as:

Low – In the IEM's opinion, indications of future and continual compliance is high, there are no previous occurrences of non-compliance and there is a good demonstration of awareness and capacity to meet the regulatory requirements;

Moderate – Indications of future and ongoing compliance are unlikely, due to inconsistencies noted with mitigation implementation or lack of understanding of requirements; and

High – No indication of future and ongoing compliance, with little or no demonstrated willingness or capacity to meet the regulatory requirement.



IEM REPORT FORMAT AND FREQUENCY

The IEM will produce site inspection reports (see Attachment 1) using mPro or equivalent (an internal software package) for each trip to site which will include results from the pre-visit desktop review, field inspections, information gathered from site staff and results from the previous site visit.

The reports will include any potential or actual non-compliances with the EAC or Federal DS as well as any environmental incidents identified during the visit including but not limited to the following:

- Summary of project activities observed and planned activities, if known;
- Inspection summary including environmental incidents, non-compliances and work in compliance including general observations with a record identification number for each item (e.g. observation, non-compliance);
- Date of the occurrence of incidents and non-compliances and reference to the applicable EAC, DS condition or MP commitment;
- Whether designated project activities were changed or stopped as a result of the occurrence;
- Root and contributing causes (if available – Note: as a compliance inspector it is not the responsibility of an IEM to investigate root causes, but root cause determination will be presented in reporting when available or if known);
- Actions taken to immediately correct the situation and how the occurrence(s) of non-compliance was or were corrected by the proponent (visually observed by IEM or details provided by BW Gold)
- Date that the corrective action(s) was or were completed by BW Gold and subsequent compliance assessment;
- Process and procedural development plan to prevent recurrence (as provided by BW Gold prior to report being issued); and
- If any, the status of pending occurrences of non-compliance that have not been corrected yet by the proponent and a description of any adverse environmental effects associated with the occurrences of non-compliance.

The IEM may also include supplemental information in the report as provided by BW Gold including:

- Plan for how BW Gold personnel with potential to interact with the situation have been briefed; (as provided by BW Gold prior to report being issued);
- Plan for any training on new process and procedures (as provided by BW Gold prior to report being issued);

IEM reports will be provided to the EAO, IAAC, BW Gold and participating Aboriginal Groups including the Aboriginal Group Monitors within 10 days of their production to align with CEAA DS Condition 9.4.



BW Gold or the IEM will host a bi-weekly meeting with a relatively fixed agenda to keep all parties informed of project activities and potential issues. A suggested agenda will include the following items during the Construction Phase:

- Summary of previous two weeks of Project activities;
- Forecast of anticipated works to occur in the coming two-week period;
- Environmental issues/concerns related to compliance or incidents;
- Review/discuss any outstanding permitting or regulatory requirements;
- Open discussion; and
- Document meetings with a notes summary.

Any issues or actions identified during the bi-weekly meeting will be summarized and provided to BW Gold for comment/response as necessary, and as directed by the regulators should they participate in the meeting.

A Project phase completion report will be completed at the end of each phase as required by Condition 12 (l) of the EAC. A summary of compliances and non-compliances documents can be prepared annually to support BW Gold's annual reporting requirements if requested.

We trust this draft IEM workplan for construction phase aligns with the draft ToE and meets the requirements of the EAC Condition 12 (m). It has been prepared using the most recent information as provide by BW Gold and feedback received from Aboriginal Groups.

Regards,

EDI Environmental Dynamics Inc.

Submitted by email

Eric O'Bryan, RPBio.

IEM Lead

Attachment 1: Monthly report template



Attachment 1 – Example of IEM report template.

IEM Report



Inspections Summary

Inspections submitted between 1/7/2019 and 1/10/2019

Inspection ID	Monitors	Visit	Date	General Locations	Activities	Notes
32	John Doe	Monthly	1/7/2019	Penstock	Review site progress.	

Open Actions

All open actions

Record ID	Inspection ID	Date	Time	Category/Requirement	State	Notes	Action Required	Responsible Party	Due Date	Follow-up
30			9:38:39 AM	Soil Management	Non-Compliant	CEMP Section 4.2: Soil Management Temporary storage of contaminated soils Soils contaminated with hydrocarbons resulting from Project activities will be collected and stockpiled in a designated location for contaminated soil on site, where it will be treated using conventional hydrocarbon "land farming" techniques or transported from site for treatment by a commercial remediation firm.	Plan for contaminated soil treatment or removal from site.		1/31/2019	

Closed Actions

Actions completed between 1/7/2019 and 1/10/2019

Record ID	Inspection ID	Date	Time	Category/Requirement	State	Notes	Action Required	Responsible Party	Due Date	Follow-up	Completed Date
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Observations

Observations recorded between 1/7/2019 and 1/10/2019

Record ID	Inspection ID	Date	Time	Category/Requirement	State	Notes	Responsible Party
91	32	1/7/2019	1:58:40 PM	Wildlife Management - Are snow bank heights managed and gaps provided on mine roads and along the northern portion of the site to allow escape pathways for wildlife?	Compliant	Grading windrow using to keep bank height low. Higher bank height areas similar to snow depth behind windrow. Natural topography creates exits regularly.	
92	32	1/7/2019	4:05:31 PM	Wildlife Management - Are pullouts and potentially large areas along the northern portion of the site managed to discourage use by snowmobiles for parking and backcountry access locations?	Compliant	Pullouts observed along site appeared to be minimized in length and frequency to maintain safety for road users while minimizing the potential for recreational use parking or turning around with a trailer.	
93	34	1/8/2019	4:14:53 PM	Erosion Prevention and Sediment Control - Is snow removal and storage occurring in accordance with the SEPSCP?	Compliant	Snow piles within the camp and admin areas are located in areas where meltwater will be directed to the existing ponds. Only the western side of camp flows into adjacent vegetation; snow stockpiling in this area is minimized. South access corridor and east quarry are not being plowed at this time.	
118	43	1/9/2019	8:07:04 AM	Wildlife Management - Are snow bank heights managed and gaps provided on mine roads and along the northern portion of the site to allow escape pathways for wildlife?	Compliant		

Journal

Journal entries created between 1/7/2019 and 1/10/2019

Record ID	Inspection ID	Date	Time	Notes
107	43	1/9/2019	4:14:43 PM	Covered Fuel tank still capturing some snow.
117	43	1/9/2019	4:36:02 PM	Clean and organized service area.

APPENDIX B EXAMPLE mPRO REPORT TEMPLATE

January 19, 2022

Reporting completed for the Blackwater Gold Project by the independent environmental monitor (IEM) will be completed as per the terms of engagement (currently under review). Reporting will include site inspection reports using the mPro reporting application following each site visit. The IEM reporting distribution list will be finalized prior to first site inspection.

mPro

EDI has developed mPro, an environmental monitoring database system that can be catered specifically to the Blackwater project. It can be utilized on tablets or phones and is very convenient and effective.

Developed in 2019 (based off several years of testing on an older platform) to help manage the huge volumes of information collected for EDI's role of the Independent Environmental Monitor for the Site C project, mPro has proven to be an effective, efficient, and stable platform to track field inspections, environmental incidents, and automated report generation.

The mPro application has been developed to manage environmental monitoring data for EDI. Data can be collected while offline with a tablet and managed from a desktop in a web browser. Reports in the Word Document (docx) format can be automatically generated based on date ranges and pre-defined fields. Photos will be included in the reports referenced by Record ID. A sample of the reporting format is attached.



Prepared For
Client

Prepared By
EDI Environmental Dynamics Inc.
301 George Street
Prince George, BC V2L 1R4

EDI Contact
John Doe
IEM Support

EDI Project
19X0000
1/15/2019



IEM Report



Inspections Summary

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