



Environmental Protection Operations Directorate  
Pacific and Yukon Region  
101 - 401 Burrard Street  
Vancouver, BC  
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May 5, 2022

ECPT: 22-BC-001  
CIAR: 83495

Julie Lowry  
Project Manager, Pacific and Yukon Region  
Impact Assessment Agency of Canada

Dear Julie Lowry,

**Re: Spanish Mountain Gold Mine Project- Federal Authority Advice Record**

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On March 30, 2022, Environment and Climate Change Canada (ECCC) received a request from the Impact Assessment Agency of Canada (IAAC) to review Spanish Mountain Gold Ltd. (the Proponent)'s Initial Project Description (IPD) for the Spanish Mountain Gold Mine Project (the Project).

ECCC's response to this request is included as an attachment to this letter (Annex 1: ECCC's Federal Authority Advice Record for the Spanish Mountain Gold Mine Project). ECCC's comments are founded upon departmental mandate and are related to air quality, greenhouse gases and climate change, water quality and quantity, wildlife, species at risk, migratory birds, wetlands, and environmental emergencies.

In addition to the completed Federal Authority Advice Record, ECCC would like to provide clarification on the *Migratory Birds Convention Act (MBCA)* and recommendations for revisions to the migratory birds information provided in the IPD. ECCC recommends that the row listing the "*Migratory Bird Convention Act (Section 5)*" be removed from Table S1: Summary of Possible Federal Authorizations. Section 5 of the *MBCA* does not authorize permits for impacts to migratory birds, their eggs or nests. For specific situations, ECCC may review and authorize a permit under Section 4(1) of the *Migratory Bird Regulations (MBR)*, including damage or danger, airport, avicultural, eiderdown, scientific, and taxidermist permits; however, there is no mechanism to permit activities that may incidentally impact migratory birds, their nests or eggs.

For migratory birds protected under Article 1 of the *MBCA*, breeding can occur at any time of the year, however the period of greatest risk is generally from April to August. More detailed nesting periods (ECCC's nesting zones and calendars) should be incorporated into the impact assessment and construction plans for the specific area where the Project will occur. Proponents should obtain the services of a qualified professional familiar with the species and nesting behaviours of migratory birds within the Project area. ECCC is available to provide advice on a case-by-case basis to avoid harm to migratory birds and contravention of the *MBCA*. Additional information about nesting calendars and avoiding harm to migratory birds is available at: <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/guidelines.html>. This information does not provide the authorization to harm or kill migratory birds or to disturb, destroy or take nests or eggs under the *MBR*. It is the



Proponent's responsibility to evaluate risks and determine the most appropriate avoidance or mitigation measures required.

Please note that ECCC is providing technical, science-based information and knowledge, pursuant to its mandate<sup>1</sup>, to inform the assessment of the Project's potential effects in the receiving environment and on valued ecosystem components. The information provided by ECCC has been prepared based upon the Project documentation made available to date. Should changes occur to the proposed Project, ECCC's advice may need to be revised. Any information or comments received from ECCC in this context does not relieve the Proponent of its obligations to respect all applicable federal Acts and regulations.

If you have any questions or concerns regarding the advice provided in the attached, please do not hesitate to contact Christie Spry at <contact information removed>

Regards,

<Original signed by>

Christie Spry  
Senior Environmental Assessment Officer  
Environment and Climate Change Canada / Government of Canada

Annex 1: ECCC's Federal Authority Advice Record for the Spanish Mountain Gold Mine Project

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<sup>1</sup> <https://www.canada.ca/en/environment-climate-change/corporate/transparency/acts-regulations/acts-administered.htm>

**Annex 1: ECCC's Federal Authority Advice Record for the Spanish Mountain Gold Mine Project**

**Federal Authority Advice Record Form**

Spanish Mountain Gold Mine Project – Spanish Mountain Gold Ltd.

**Response due by May 6, 2022**

Please submit the form to: [SpanishMountain@iaac-aeic.gc.ca](mailto:SpanishMountain@iaac-aeic.gc.ca)

Agency File: 005827

Registry Reference No.: 83495

Department/Agency	Environment and Climate Change Canada (ECCC)
Lead Contact	Christie Spry, Senior Environmental Assessment Officer
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Email	<email address removed>
Telephone	<contact information removed>
Alternate Departmental Contact	Kathryn Marshall, Senior Environmental Assessment Officer

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**1. Is it probable that your department or agency may be required to exercise a power or perform a duty or function related to the Project to enable it to proceed?**

**If yes, specify the Act of Parliament and that power, duty or function.**

Based on the IPD, ECCC expects that it may be required to exercise a power, or perform a duty or function related to the Project, to enable it to proceed. Once the scope of the Project and of the assessment are established by the Agency, this may change as additional activities or project components could come into scope.

**Authorization to use a water body frequented by fish as a Tailings Impoundment Area under subsection 5(1) of the *Metal and Diamond Mining Effluent Regulations of the Fisheries Act*.**

ECCC is responsible for the administration of subsection 36(3) to (6) of the *Fisheries Act* and the implementation of the *Metal and Diamond Mining Effluent Regulations* (MDMER). Subsection 36(3) of the *Fisheries Act* prohibits the deposit of a deleterious substance in waters frequented by fish unless

authorized by regulations. The MDMER authorizes the deposit of a deleterious substance under specified conditions, including deposits into a Tailings Impoundment Area (TIA) that is a water or place set out in Schedule 2 of the Regulations.

The use of waters frequented by fish for mine waste disposal can only be authorized by amending the MDMER to list the water body in Schedule 2 of the Regulations, designating it as a TIA. ECCC, on the expert advice from the Department of Fisheries and Oceans, will determine the water bodies that require listing in Schedule 2 of the MDMER.

Section 27.1 of the MDMER requires the development and implementation of a fish habitat compensation plan (FHCP) to offset the loss of fish habitat that would occur as a result of the use of a fish-frequented water body for mine waste disposal. The owner or operator of a mine is also required to submit an irrevocable letter of credit to cover the plan's implementation costs. Mining proponents must also demonstrate that the disposal of tailings (including effluents) in these water bodies is the best approach from an environmental, technical, economic and socio-economic perspective in accordance with ECCC's "Guidelines for the Assessment of Alternatives for Mine Waste Disposal" (<https://www.canada.ca/en/environment-climate-change/services/managing-pollution/publications/guidelines-alternatives-mine-waste-disposal.html>). Providing this information during the impact assessment can reduce the time required for the regulatory amendment process under the MDMER, following the completion of the impact assessment. The timing of the submission of the assessment of alternatives and the FHCP, is however, determined by the Proponent.

The Governor in Council (Treasury Board), on the recommendation of the Minister of the Environment, makes the final decision to list water bodies in Schedule 2 of the MDMER.

The timeline for completion of the regulatory process is between 12-18 months following the completion of consultation with Indigenous groups and the public on the assessment of alternatives for mine waste disposal and the fish habitat compensation plan. For projects that meet certain conditions, however, a streamlined approach for approvals may be recommended to the Governor in Council as per the Department's policy on "Streamlining the Approvals Process for Metal Mines with Tailings Impoundment Areas" (<https://www.canada.ca/en/environment-climate-change/services/managing-pollution/sources-industry/mining/approvals-process-metal-mines-impoundment-areas.html>). Where possible, consultations on amendments to Schedule 2 of the MDMER will be coordinated with the consultations undertaken during the impact assessment.

If not fully described in the IPD, the Proponent should provide in the Detailed Project Description information on water bodies that may require listing on Schedule 2 of the MDMER. More specifically, maps or figures identifying the water bodies and information regarding fish studies or any other information that could support a determination on the presence of fish in the area that may be impacted by the disposal of mine waste.

For more information, contact the *Metal and Diamond Mining Effluent Regulations* Inbox, [ec.mdmmer-remmmd.ec@canada.ca](mailto:ec.mdmmer-remmmd.ec@canada.ca).

Further information regarding amendments to Schedule 2 of the MDMER will be provided in the Permitting Plan.

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**2. Is your department or agency in possession of specialist or expert information or knowledge that may be relevant to the conduct of an impact assessment of the Project?**

**Specify as appropriate.**

ECCC has specialist or expert information that may be relevant to the impact assessment in the areas listed below; in each of these subject areas we have expertise related to establishing an adequate baseline, assessing potential effects to biophysical valued components, effectiveness of mitigation measures, methods for monitoring and follow-up, as well as information regarding federal policies, standards, and regulations that may be relevant to the assessment (Note: Within the context of impact assessment, ECCC does not assess proposed projects for regulatory compliance, but rather provides technical, science-based information and knowledge pursuant to its mandate, to inform the Agency of a project's potential effects in the receiving environment and on valued ecosystem components). Once the scope of the Project and of the assessment are established by the Agency, this list may change if additional project activities or components should come into scope, or should additional information be provided by the Proponent.

**Air Quality:** ambient air quality; sources of emissions; emissions estimation and measurement; atmospheric transport, transformation and dispersion modelling; and follow-up monitoring.

**Greenhouse gas emissions and climate change:** estimations of greenhouse gas (GHG) emissions (net and upstream); carbon sinks; GHG mitigation measures and determination of Best Available Technologies/Best Environmental Practices (BAT/BEP); credible plans to achieve net-zero GHG emissions by 2050; climate change science to inform evaluation of potential changes to the environment and project resilience to effects of climate change; climate change policies; and national GHG projections.

**Water quality and quantity:** surface water quality insofar as it could affect fish and fish habitat; water quality predictions and modelling; contaminant sources for surface water and groundwater, including effluent; wastewater, seepage and runoff effects; management of contaminated soils or sediments; marine and freshwater dredging; hydrology (streamflow rates data and modelling, flooding and extreme events management, drainage control, water levels, water balances); geochemistry; cumulative effects and follow-up and monitoring.

**Wildlife, species at risk, and habitat:** priority species and places as outlined in the *Pan-Canadian Approach to transforming species at risk conservation in Canada*<sup>1</sup>; migratory birds, their nests, eggs, and habitat; COSEWIC<sup>2</sup> assessed species, species at risk, individuals, their residences, habitat and critical habitat including recovery strategies, action plans and management plans; ecological function of wetlands; and ecotoxicology.

**Environmental emergencies:** emergency management planning and guidance; including where the release of hazardous substances could affect species at risk and/or migratory birds; atmospheric transport and dispersion modelling of contaminants in air; fate and behaviour, and hydrologic trajectory modelling of contaminants in water.

**Climate and Meteorology:** long-term climate patterns and norms; and weather.

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### 3. Has your department or agency considered the Project; exercised a power or performed a duty or function under any Act of Parliament in

<sup>1</sup> <https://www.canada.ca/en/services/environment/wildlife-plants-species/species-risk/pan-canadian-approach/species-at-risk-conservation.html>

<sup>2</sup> Committee on the Status of Endangered Wildlife in Canada

**relation to the Project; or taken any course of action that would allow the Project to proceed in whole or in part?**

**Specify as appropriate.**

ECCC has not considered, exercised a power or performed a duty, or taken any course of action as part of the Project.

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- 4. Has your department or agency had previous contact or involvement with the proponent or other party in relation to the Project? (for example, enquiry about methodology, guidance, or data; introduction to the project)**

**Provide an overview of the information or advice exchanged.**

Based on information readily available, ECCC Pacific and Yukon Region has not had any involvement with the Proponent or other parties that would be relevant to the assessment of the current Project.

ECCC has had previous involvement with the Proponent and other parties related to the assessment of the previous iteration of the Project, the Spanish Mountain Gold Mine Project (CIAR reference number 63917). ECCC provided departmental expertise on the previous comprehensive study that commenced on October 6, 2011, under the former *Canadian Environmental Assessment Act*. ECCC also participated in meetings regarding permitting and authorizations, including for a potential Schedule 2 amendment under the former *Metal Mining Effluent Regulations*. In addition, ECCC provided departmental expertise in the provincial environmental assessment review conducted by the BC Environmental Assessment Office, under the former provincial *2002 Environmental Assessment Act*. This information is provided for context only, as it is ECCC's understanding that the new Spanish Mountain Gold Project is considered to be substantially different from the previous project (including lay of mine site and tailings storage) and past considerations for the previous project will not apply anymore.

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- 5. Does your department or agency have additional information or knowledge not specified, above?**

**Specify as appropriate.**

Not at this time.

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- 6. From the perspective of the mandate and area(s) of expertise of your department or agency, what are the issues that should be addressed in**

**the impact assessment of the Project, should the Agency determine that an impact assessment is required?**

**For each issue discussed, provide a concise, plain-language summary that is appropriate for inclusion in the Summary of Issues and Engagement.**

## **Air Quality**

The construction, operation, and decommissioning of mines can result in adverse effects on air quality. Mining operations, processing (crushing and milling), and activities associated with combustion (including all modes of transportation) can result in the emission of contaminants such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOCs), and particulate matter (PM<sub>2.5</sub>, PM<sub>10</sub> and PM). Activities which cause a physical disturbance to land and ore material, such as earth moving, land clearing, blasting, crushing, and transportation, can also introduce particulate matter (e.g., dust and soot) to the surrounding region. The emission of these air contaminants can result in to local or regional degradation of ambient air quality, with potential impacts on sensitive ecosystem receptors. Furthermore, emissions of air contaminants as a result of the Project may add cumulatively to the emissions from other activities, contributing to degradation of air quality in the region.

When contaminants settle out of the air in the surrounding environment, their deposition may result in adverse impacts to terrestrial and aquatic ecosystems. For example, metals and polycyclic aromatic compound (PAC) emissions from mining activities may result in elevated concentrations of these contaminants in water, soil, flora, and fauna. Emissions of NO<sub>x</sub> and SO<sub>2</sub> may also lead to acidification and potential exceedance of ecosystems' critical loads. Air contaminant emissions can result in contamination of nearby land and waterbodies, and may affect sensitive ecosystem receptors.

### **Road Transportation emissions**

Projects which involve on-road vehicles and mobile off-road machines for construction, operation and decommissioning, or that lead to an increase in road traffic (e.g., hauling of material by truck from mine), have the potential to adversely affect air quality. More specifically, the combustion of fossil fuels can result in the emission of air contaminants such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOCs), and fine particulate matter (PM<sub>2.5</sub>). When some contaminants settle out of the air in the surrounding environment, their deposition may result in acidification and potential exceedance of ecosystems' critical loads. The emission of these air pollutants can result in local or regional degradation of ambient air quality, with potential impacts on sensitive ecosystem receptors.

## **Greenhouse Gas Emissions and Climate Change**

The construction, operation, and decommissioning of the proposed Project may result in GHG emissions, or impact to carbon sinks, and may hinder or contribute to the Government of Canada's ability to meet its commitments in respect of climate change. Furthermore, the Project has the potential to be affected by future climate change, possibly resulting in impacts to the environment. Climate change may alter the likelihood or magnitude of sudden weather events such as extreme precipitation that can contribute to flooding, as well as contribute to longer-term changes such as sea level rise, permafrost thaw and

changes to migration patterns. Changes related to warming are already evident in many parts of Canada, and are projected to continue in the future with further warming.

The [Strategic Assessment of Climate Change \(SACC\)](#) (published in October 2020) provides guidance related to climate change throughout the impact assessment process. The SACC outlines information that the proponent should provide during the impact assessment process on GHG emissions, impact of the Project on carbon sinks, impact of the Project on federal emissions reduction efforts and on global GHG emissions, GHG mitigation measures and climate change resilience; the circumstances in which an upstream GHG assessment would be required; and the circumstances in which a credible plan to achieve net-zero emissions by 2050 will be required.

More details are provided in the [draft Technical Guide Related to the Strategic Assessment of Climate Change: Guidance on quantification of net GHG emissions, impact on carbon sinks, mitigation measures, net-zero plan and upstream GHG assessment](#) published in August 2021.

## Climate Change Resilience

Given projected changes in future climate for the Project area, climate change considerations are relevant to the Project review. There is potential for climate change to effect the Project which, in turn, may have impacts on the surrounding environment (e.g., through accidents or malfunctions). Climate changes in the Project area, such as possible changes in mean and extreme precipitation and temperature and related environmental conditions, may alter baseline conditions, with implications for climate sensitive aspects of Project design and associated effects on the environment.

For example, project components and activities for which climate change resilience could be important for this Project include those related to water management systems. If the Proponent is required to conduct an Impact Statement, further information would be required through the Tailored Impact Statement Guidelines (TISG) on how the Project is resilient to and at risk from both the current and future impacts of a changing climate.

The [draft technical guide related to the Strategic Assessment of Climate Change: Assessing Climate Change Resilience](#) was published in March 2022, and provides general directions on the scope of climate change information required and a framework for assessing risk and considering climate change resilience at the project level.

## Water Quality and Quantity

The activities and components linked to the construction, operation, closure and post-closure of metal mining projects can have adverse effects on the quality of surface water and groundwater, and may affect the hydrological regimes of watercourses and water bodies. All phases of metal mining projects may include the following activities: land clearing, overburden and topsoil stockpiling, blasting associated with open pit or underground mine workings, operating heavy equipment, constructing haul roads, transporting mined material on haul roads, ore storage and processing, waste management (including but not limited to tailings and waste rock), constructing and operating non-contact and contact water diversions, dam construction, and other activities.

Physical disturbances associated with earthworks are a primary environmental effect of mining, as exposing previously buried rock can result in acid generation and/or metal leaching. The exposure of waste rock, overburden, pit walls, and ore to the atmosphere allows for the weathering and oxidation of sulphide materials, which may result in the generation of acid rock drainage and metal



leaching. Depending on the geochemistry of the Project site, neutral metal leaching could also be of concern. Subsequent interaction of acidic and neutral contact water with soluble minerals can result in leaching of metals into groundwater and surface water that will eventually discharge into the aquatic receiving environment, potentially affecting aquatic life. As a result, discharge or seepage from mine and waste management infrastructure (e.g., tailings management facilities, waste rock storage piles, ore stockpiles, water treatment facilities, sedimentation ponds, open pits, end-pit lakes, etc.) has the potential to result in adverse effects on surface water and groundwater quality.

Other adverse effects to surface water and groundwater quality include increased erosion and sediment generation, transport, and deposition to nearby waterbodies, dissolution of nitrates from explosive use, deposition of particulate matter (dust) to surface water, and discharges of other contaminants from mining operations or mineral processing.

Mine activities have the potential to alter surface water flows and quantities, which in turn could impact water quality in the receiving environment. Mining projects may also affect surface water quantity through “drawdown” of the water table – that is, a lowering of the water table underground. Water table drawdown can happen because of construction of open pits, underground mines as well as through pumping out groundwater that seeps into an open pit or underground mine. It can also happen due to removal of water from constructed wells for water-intensive operational processes in the mine. The “drawdown” of a water table can have an impact on surface water quality by reducing the quantity of groundwater available to recharge surface water bodies. This, in turn, could reduce the total volumes of water in nearby lakes or rivers and potentially increase the concentration of contaminants in those water bodies, thereby resulting in adverse effects on water quality.

The activities linked to the construction, operation, and decommissioning of linear project components (e.g., transmission lines) can have adverse effects on the quality of groundwater and surface water, as well as on the hydrological regimes of watercourses and water bodies. Construction of linear project components may result in the deposit of contaminants to watercourses or cause erosion and deposition of soil and sediment in water bodies. Disturbing soil and rock may also result in processes such as acid rock drainage, or metal leaching, which has adverse effects on water quality due to acidification and introduction of metal contaminants into the waterbody.

## **Wildlife, species at risk, and habitat**

The activities linked to the construction, operation, and decommissioning of a mine and associated infrastructure could have negative effects on terrestrial wildlife, migratory birds and species at risk (e.g., amphibians, arthropods, birds, lichens, terrestrial mammals, mosses, reptiles, and vascular plants) listed on the *Species at Risk Act* (SARA), their habitat (e.g., wetlands), as well as critical habitat. The Project location is likely to affect Southern Mountain Caribou (SMC) Critical Habitat in the Quesnel Highlands Local Population Unit, specifically matrix critical habitat of the Wells Gray North subpopulation. The Project also has the potential to contribute to cumulative effects to SMC and their habitat.

The nature of effects to wildlife and their habitat (including residences and critical habitat defined under the SARA) can vary based on a number of factors, including: project location, duration, scale, and configuration; ancillary project activities (e.g., land clearing, blasting and vehicle traffic); existing cumulative effects; the type of habitat that may be disturbed; and sensitivity of species found in the project area. The pathway through which potential effects are conveyed will depend on the land, air, and water constituents associated with the site along with the behavioral adaptability, presence and interaction with the species limiting factor (e.g. habitat supporting breeding, overwintering, migration/movement or foraging) and population resilience.

## Migratory Birds, Species at Risk and their Habitat

Individual mortality and the destruction of nests and eggs or any other structure necessary for the reproduction and survival of migratory birds and species at risk could occur during all Project phases. Exploration and construction of mines and associated infrastructure usually contribute to large-scale land clearing activities, which leads to destruction, disturbance and fragmentation of habitat (e.g., foraging, nesting, hibernating), habitat avoidance, sensory disturbance, and the inadvertent disturbance and destruction of individuals, nest and eggs of migratory birds and species at risk.

Impacts may also occur with respect to linear project components (e.g., a new transmission line), particularly during site preparation, right-of-way maintenance and project dismantling. Mortality in migratory birds and species at risk could also occur because of collisions with vehicles or infrastructure related to the project. Accidental oil or chemical spills could also have adverse effects if these substances make their way into the habitats frequented by migratory birds and species at risk. Linear project components can cause the loss, fragmentation and alteration of habitat, and can negatively impact the reproduction, migration and wintering of affected species. There is the potential for removal of habitat important for nesting, foraging, staging, and overwintering migratory birds. Linear disturbances may also have other negative effects on wildlife, particularly by facilitating the movement of predators in the area, thereby increasing predator abundance, distribution and hunting efficiency or creating connectivity issue within the habitat. The construction of the Project may also promote access to the region and increased harvesting pressure or recreational activities, which may affect wildlife.

There is a higher risk that these effects would be more severe for migratory birds that are also species at risk and species where habitat is sensitive to disturbance (e.g., wetlands) or where there is already a high degree of cumulative effects to habitat or individuals (e.g., SMC). Destruction and/or disturbance of habitat can have increased impacts on species at risk individuals, residence and their critical habitat, which can lead to changes in prey and predator dynamics, loss of food resources, loss of breeding areas, changes in migration or movement, and increased risk of mortality. For example, certain species at risk (e.g., turtles) and migratory birds (e.g., Bank swallows or Common nighthawk) may nest in large piles of soil left unattended/unvegetated during the most critical period of breeding season. Other species at risk (e.g., bats) rely on summer and fall roosts and winter hibernacula that may have conditions (e.g., humidity) disturbed by blasting and vibration associated with underground mining activities.

Where a mining project requires new road infrastructure or an increase in capacity to existing road networks, the increase in road traffic volumes are likely to result in an increase in wildlife injury, mortality, and the introduction of invasive species (e.g., Common Reed (*Phragmites australis*)) and hunters/poachers. Although adverse direct effects to migratory birds and their nests are typically managed through appropriate scheduling of activities outside of the breeding season, collisions with vehicles and associated infrastructure can result in direct mortality of wildlife. Effects will be most acute during the operation phase as this is when the most pronounced and sustained increase in vehicle volume is expected.

The construction, operation and decommissioning of mines may impact wildlife directly and indirectly through impacts to habitat through changes in geomorphological processes (e.g., sedimentation processes, water quality and quantity). Additionally, birds that land on and/or frequent waste water (e.g., submerged tailings in tailings ponds, pit water) have the potential to come into contact with toxic substances which can result in on and off site mortality. During construction, operation, maintenance and decommissioning, there is the potential for harmful substances to enter or be spilled into the receiving environment that may negatively affect wildlife. Depending on the nature of the release (e.g., toxicity, volume release, exposure pathways), effects to wildlife could be acute, chronic or both. Changes to water quality and quantity can affect migratory birds, wildlife, and their habitat.

Noise, vibrations and light from construction and operation activities may result in habitat disturbance which can lead to avoidance of use. Attraction to lights at night or in poor visibility conditions during the day may cause birds to collide with lit structures or their vertical support structures, resulting in injury or death. In other instances, birds can get disoriented while circling a light source, and may deplete their energy reserves and either die of exhaustion or drop to the ground where they are at risk from predation. The amount, duration, frequency, and timing of noise are important to understand potential effects. Sensory disturbance may make adjacent habitats unsuitable for use by wildlife and cause avoidance effects in many species.

## Wetlands

The activities linked to the construction, operation, and decommissioning of a mine could have negative effects on wetlands and their ecological functions. Carrying out the Project, particularly the activities related to construction, is likely to alter the existing hydrological regimes essential for maintaining wetlands and thus affect the quality or availability of habitat for migratory birds, species at risk, and other wildlife. The destruction and modification of wetlands is likely to have adverse effects on migratory birds and species at risk that use these areas for breeding, foraging, resting and migration. A linear disturbance is also more likely to create introduction and dispersal pathways for invasive species. The spread of invasive species may pose a threat to wetlands.

## Environmental Emergencies

The proposed Project includes a tailings storage facility, water treatment facilities including a water treatment plant and water management pond, fuel (including diesel and propane) storage, and hazardous waste storage, as well as the use of cyanide in processing, within close proximity to fresh waterbodies, including Quesnel Lake and Spanish Lake. As such, there is potential for adverse environmental effects from accidents and malfunctions, such as failure of the tailings dam, failure of the water treatment system, malfunctions or releases from water management infrastructure, fuel spills, or accidental release of cyanide. Adverse effects to air quality, water quality, wildlife and wildlife habitat could result from the accidental release of high concentrations of ammonia, hydrocarbons, and other contaminants to surrounding waters. Optimized spill prevention, preparedness and response measures and systems will be important given the risk of spills of hazardous substances to the environment, especially to nearby waterways and environmentally sensitive areas.

Part 8 of the *Canadian Environmental Protection Act* (CEPA) 1999 on environmental emergencies (sections 193 to 205) addresses the **prevention** of, **preparedness** for, **response** to and **recovery** from environmental emergencies caused by uncontrolled, unplanned or accidental releases. It also addressed the reduction of any foreseeable likelihood of releases of toxic or other hazardous substances listed in Schedule 1 of the *Environmental Emergency Regulations*. This act may apply if Schedule 1 substances onsite meet or exceed the threshold to be regulated under CEPA 1999.

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Christie Spry  
Name of Departmental / Agency  
Responder

Senior Environmental Assessment  
Officer

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Title of Responder

May 5, 2022

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Date