Beaver Dam Mine Project
Environmental Impact Statement
October 2021

Submitted to the Impact Assessment Agency of Canada and Nova Scotia Environment

Atlantic Mining NS Inc.

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October 29, 2021

Kathryn MacCarthy, Project Manager
Impact Assessment Agency of Canada
Suite 200, 1801 Hollis Street
Halifax, NS 63J 3N4

Bridget Tutty, Environmental Assessment Officer
Environmental Assessment Branch
Nova Scotia Environment
Suite 2085, 1903 Barrington Street
PO Box 442, Halifax, NS B3J 2P8

Dear Ms. MacCarthy and Ms. Tutty,

Atlantic Mining NS Inc, a wholly owned subsidiary of St Barbara Limited, is pleased submit the Updated 2021 Environmental Impact Statement (EIS) as per the *Canadian Environmental Assessment Act, 2012* and the Environmental Assessment Registration Document (EARD) as per Nova Scotia *Environmental Assessment Regulations.* The Updated 2021 EIS is being issued to support the Responses to the Information Request, Round 2, for the Beaver Dam Mine Project that was submitted on October 29, 2021.

As per our October 12, 2021 meeting, it was agreed upon that the updated sections in the EIS will not be highlighted, however each section includes a summary of changes before and after the 2021 updates.

The undersigned has signing authority and submits the documents as per the federal and provincial environmental assessment processes.

Any correspondence regarding the Environmental Assessment should be directed to the undersigned.

CHudson

Craig Hudson
Head of Permitting and Projects
Atlantic Mining NS Inc

cc: Mike Atkinson, Impact Assessment Agency of Canada

Beaver Dam Mine Project Updated 2021 Environmental Impact Statement Guidelines (CEAA 2016) Concordance Table

Guidelines Section	Guidelines for the Preparation of an Environmental Impact Statement pursuant to the *Canadian Environmental Assessment Act*, 2012 Beaver Dam Mine Project EIS Guidelines Descriptions	Applicable Corresponding 2017 EIS Section	Applicable Corresponding Revised 2019 EIS Section	Applicable Corresponding Updated 2021 EIS Section
1. INTRODUCTION AND OVERVIEW	-	**1. INTRODUCTION**	**1. INTRODUCTION**	
1.1. The proponent	In the EIS, the proponent will: - provide contact information (e.g. name, address, phone, fax, email); - identify itself and the name of the legal entity that would develop, manage and operate the project; - describe corporate and management structures; - specify the mechanism used to ensure that corporate policies will be implemented and respected for the project; and - identify key personnel, contractors, and/or sub-contractors responsible for preparing the EIS.	1.2 Proponent Information	1.2 Proponent Information	1.4 Proponent Information
1.2. Project overview	The EIS will describe the project, key project components and associated activities, scheduling details, the timing of each phase of the project and other key features. If the project is a part of a larger sequence of projects, the EIS will outline the larger context. The overview is to identify the key components of the project, rather than providing a detailed description, which will follow in Section 3 of this document.	1.1 Project Overview	1.1 Project Overview	1.2 Project Overview
1.3. Project location	The EIS will contain a description of the geographical setting in which the project will take place. This description will focus on those aspects of the project and its setting that are important in order to understand the potential environmental effects of the project. The following information will be included: - the UTM coordinates of the main project site; - land use in the area currently; - distance of the project facilities and components to any federal lands; - Crown lands and other provincially-owned lands; - the environmental significance and value of the geographical setting in which the project will take place and the surrounding area; - environmentally sensitive areas, such as national, provincial and regional parks or wilderness areas, ecological reserves, wetlands, estuaries, designated areas (e.g., important bird habitat), mature or interior forest habitat of migratory birds, and habitats of federally or provincially listed species at risk and other sensitive areas (e.g. habitats of species of conservation concern, colonial nesters, areas of concentration of migratory birds) that are within the project's potential zone of influence including accidents and malfunctions ; - local communities; and - traditional Aboriginal territories and/or consultation areas, treaty lands, Indian reserve lands or other Aboriginal communities	2.1 Project Location	2.1 Project Location	1.2.2 Project Location
1.4 Regulatory framework and the role of government	The EIS will identify: - any federal power, duty or function that may be exercised that would permit the carrying out (in whole or in part) of the project or associated activities; - the environmental and other regulatory approvals and legislation that are applicable to the project at the federal, provincial, regional and municipal levels; - government policies, resource management, planning or study initiatives pertinent to the project and/or EA and their implications; - any treaty or self-government agreements with Aboriginal groups that are pertinent to the project and/or EA; - any relevant land use plans, land zoning, or community plans; and - regional, provincial and/or national objectives, standards or guidelines that have been used by the proponent to assist in the evaluation of any predicted environmental effects.	1.3 Regulatory Framework and Role of Government	1.3 Regulatory Framework and Role of Government	1.5 Regulatory Framework and Role of Government
2. PROJECT JUSTIFICATION AND ALTERNATIVES CONSIDERED	-	1.4 Purpose of the Project 2.6 Alternatives Means of Carrying Out of the Project	1.4 Purpose of the Project 2.6 Alternatives Means of Carrying Out of the Project	1.3 Purpose of the Project 2.10 Alternatives Means of Carrying Out of the Project
2.1. Purpose of the project	The EIS will describe the purpose of the project by providing the rationale for the project, explaining the background, the problems or opportunities that the project is intended to satisfy and the stated objectives from the perspective of the proponent. If the objectives of the project are related to broader private or public sector policies, plans or programs, this information will also be included. The EIS will also describe the predicted environmental, economic and social benefits of the project. This information will be considered in assessing the justifiability of any significant adverse residual environmental effects, if such effects are identified.	2.1 Purpose of the Project	2.1 Purpose of the Project	1.3 Purpose of the Project 2.4 Ecological Setting 2.5 Project History 2.6 Geology and Resources

Beaver Dam Mine Project Updated 2021 Environmental Impact Statement Guidelines (CEAA 2016) Concordance Table (continued)

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2.2. Alternative means of carrying out the project	The EIS will identify and consider the effects of alternative means of carrying out the project that are technically and economically feasible. The proponent will complete the following procedural steps for addressing alternative means: - identify the alternative means to carry out the project; - identify the effects of each technically and economically feasible alternative means; - select the approach for the analysis of alternative means (i.e., identify a preferred means or bring forward alternative means); and - assess the environmental effects of the alternative means. In its alternative means analysis, the proponent will address, at a minimum, the following project components: - mine type (e.g. open pit, underground); - material extraction methods; - processing (process types); - processing location (e.g. Beaver Dam versus Touquoy Mine Site); - transportation of ore (means and routing considered); - energy sources to power the project site (diesel, electricity, renewables); - location of key project components; - water supply and management; and - mine waste disposal (methods and sites considered including dry stack tailings disposal)[1]. For further information regarding the "purpose of" and "alternative means", please consult the Agency's Operational Policy Statement entitled "Addressing "Purpose of" and "Alternative Means" under the Canadian Environmental Assessment Act, 2012". The Agency recognizes that projects may be in the early planning stages when the EIS is being prepared. Where proponents have not made final decisions concerning the placement of project infrastructure, the technologies to be used, or that several options may exist for various project components, they are strongly encouraged to conduct an environmental effects analysis at the same level of detail assessment of the various options available (alternative means) within the EIS.	2.6 Alternative Means of Carrying Out the Project	2.6 Alternative Means of Carrying Out the Project	2.10 Alternative Means of Carrying Out the Project

[1] Should an MMER Schedule 2 amendment be required for the Project, the proponent is strongly encouraged to include MMER requirements for an assessment of alternatives for mine waste disposal in the EIS. The methodology recommended for the conduct of mine waste disposal alternatives is described in Environment Canada's Guidelines for the Assessment of Alternatives for Mine Waste Disposal (2011). A copy of this guide can be found on Environment Canada's website at www.ec.gc.ca. Proponent should also refer to Part 1, section 4.1 of this document.

Beaver Dam Mine Project Updated 2021 Environmental Impact Statement Guidelines (CEAA 2016) Concordance Table (continued)

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3. PROJECT DESCRIPTION	-	2. Project Description	2. Project Description	2. Project Description
3.1. Project components	The EIS will describe the project, by presenting the project components, associated and ancillary works, and other characteristics that will assist in understanding the environmental effects. This will include: - maps, at an appropriate scale, of the project location, the project components (at the Beaver Dam Mine Touquoy Mine, and roads), boundaries of the proposed site with UTM coordinates, the major existing infrastructure, Crown lands and any other designated lands, adjacent land uses and any important environmental features; - waste rock, overburden, topsoil, low grade ore storage and stock piles (footprint, locations, volumes, development plans and design criteria); - open pit mine (footprint, location, development plans including pit phases); - crusher and processing facilities (footprint, technology, location); - water (pit water, mine effluent) management and treatment infrastructure (e.g. settling ponds, sumps, water diversion structures); - permanent and temporary linear infrastructures (e.g. roads, transmission lines), identifying the route of each of these linear infrastructures, the location and types of structures used for stream crossings (e.g. culverts and bridges); - drinking and industrial water requirements (source, quantity required, need for water treatment); - energy supply (source, quantity); - pit and infrastructure lighting; - administrative buildings, garages, petroleum product storage facility, other ancillary facilities; - construction camp (location, capacity, wastewater treatment); - waste disposal (type of waste, method of disposal, quantity); and - all changes to components, activities, scheduling, and lifespan at the Touquoy Mine resulting from the Beaver Dam Project (e.g. potential increase in processing, waste rock, tailings management, water management).	2.2 Project Components	2.2 Project Components	2.7 Project Components
3.2. Project activities	The EIS will include descriptions of the construction, operation, decommissioning and abandonment associated with the proposed project. This will include descriptions of the activities to be carried out during each phase, the location of each activity, expected outputs and an indication of the activity's magnitude and scale. Although a complete list of project activities should be provided, the emphasis will be on activities with the greatest potential to have environmental effects. Sufficient information will be included to predict environmental effects and address public concerns identified. Highlight activities that involve periods of increased environmental disturbance or the release of materials into the environment. The EIS will include a summary of the changes that have been made to the project since originally proposed, including the benefits of these changes to the environment, Aboriginal peoples, and the public. The EIS will include a schedule including time of year, frequency, and duration for all project activities. The information will include a description of:	2.3 Project Activities	2.3 Project Activities	2.9 Project Activities
3.2.1. Site preparation and construction	Site preparation and construction - site clearing, excavation - drilling and blasting (frequency and methods, type of explosive used), including any transport and/or storage - borrow materials requirements (source and quantity) - water diversion required (location, methods, timing) - contribution to atmospheric emissions, including emissions profile (type, rate and source) - quantification of direct greenhouse gas emissions - equipment requirements (type, quantity) - administrative buildings, garages, construction camp, other ancillary facilities - number of employees and transportation of employees - dewatering of man-made pond in northeast section of project area or any other waterbody - haul road upgrades (e.g. grading, widening, rerouting, upgrading) and maintenance, including construction, replacement, installation and/or modification of bridges and culverts as well as consideration of geochemical and physical properties of rock to be used for road upgrades (e.g. waste rock from Touquoy mine).	2.3.1 Subsections titled “Site Preparation and Construction”	2.3.1 Subsections titled “Site Preparation and Construction”	2.9.1 Subsections titled “Site Preparation and Construction”

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3.3.2. Operation	- mining plan, ore production, ore stockpiling, concentrate production - equipment requirements - drilling - explosive uses (storage location [should storage be required], transportation, and management) - blasting (frequency and methods) - water management on the project site, including a detailed water budget - ore crushing and treatment - noise and dust management - reagent requirements (volumes, storage, types) - petroleum products (source, volume, storage) - characterization and management of ore, waste rock, low grade ore, overburden and tailings (volumes generated, mineralogical characterization, potential for metal leaching and acid rock drainage) - effluent management and treatment (quantity, treatment requirement, release point) - contribution to atmospheric emissions, including emissions profile (type, rate and source) - quantification of direct greenhouse gas emissions - water recycling - light management - waste management and recycling (other than mine waste such as tailings and waste rock) - number of employees, transportation of employees, work schedule, lodging requirement on site and off site - maintenance activities - transportation of ore to the Touquoy Mine (e.g. maximum number of trucks per day)	2.3.2 Subsections titled “Operation and Maintenance”	2.3.2 Subsections titled “Operation and Maintenance”	2.9.2 Subsections titled “Operation and Maintenance”
3.2.3. Decommissioning and abandonment	☐ the outline of a decommissioning and reclamation plan for any components associated with the project ☐ the ownership, transfer and control of the different project components ☐ the responsibility for monitoring and maintaining the integrity of the remaining structures ☐ for permanent facilities, a conceptual discussion on how decommissioning could occur	2.3.3 Subsections titled “Decommissioning and Reclamation”	2.3.3 Subsections titled “Decommissioning and Reclamation”	2.9.3 Subsections titled “Active Reclamation”
4. PUBLIC CONSULTATION AND CONCERNS	The EIS will describe the ongoing and proposed consultations and the information sessions that the proponent will hold or that it has already held on the project. It will provide a description of efforts made to distribute project information and provide a description of information and materials that were distributed during the consultation process. The EIS will indicate the methods used, where the consultation was held, the persons and organizations consulted, the concerns voiced and the extent to which this information was incorporated in the design of the project as well as in the EIS. The EIS will provide a summary of key issues raised related to the environmental assessment as well as describe any outstanding issues and ways to address them.	3. Public Consultation and Engagement Program	3. Public Consultation and Engagement Program	3. Public Engagement Appendix A.4a Appendix A.6

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5. ABORIGINAL ENGAGEMENT AND CONCERNS	For the purposes of developing the EIS, the proponent will engage with Aboriginal groups that may be affected by the project, to obtain their views on:
	- effects of changes to the environment on Aboriginal peoples (health and socio-economic conditions; physical and cultural heritage, including any structure, site or thing that is of historical, archaeological, paleontological or architectural significance; and current use of lands and resources for traditional purposes) pursuant to subparagraph 5(1)(c) of CEAA 2012, and
	- potential adverse impacts of the project on potential or established Aboriginal or Treaty rights, title and related interests, in respect of the Crown's duty to consult, and where appropriate, accommodate Aboriginal peoples.
	
	With respect to effects of changes to the environment on Aboriginal peoples, the assessment requirements are outlined in Part 2, Sections 6.1.9 and 6.3.5, of these Guidelines. With respect to potential adverse impacts of the project on potential or established Aboriginal or treaty rights, title and related interests, the EIS will document for each group identified in section 5.1 of these Guidelines (or in subsequent correspondence from the Agency):
	- Potential or established Aboriginal or treaty rights[2], title and related interests, when this information is provided by a group to the proponent or available through public records including:
	  - geographical extent, nature, frequency, timing of the practice or exercise of the right; and,
	  - maps and data sets (e.g. fish catch numbers);
	- potential adverse impacts of each of the project components and physical activities, in all phases, on potential or established Aboriginal or treaty rights, title and related interests. This assessment is to be based on a comparison of the exercise or state of the identified rights, title and related interests between the predicted future conditions with the project and the predicted future conditions without the project. Include the perspectives of Aboriginal groups where these were provided to the proponent by the groups;
	- measures identified to mitigate or accommodate potential adverse impacts of the project on the potential or established Aboriginal or treaty rights, title and related interests. These measures will be written as specific commitments that clearly describe how the proponent intends to implement them and may go beyond mitigation measures that are developed to address potential adverse environmental effects;
	- potential adverse impacts on potential or established Aboriginal or treaty rights, title and related interests that have not been fully mitigated or accommodated as part of the environmental assessment and associated engagement with Aboriginal groups. The proponent will also take into account the potential adverse impacts that may result from the residual and cumulative environmental effects. Include the perspectives of Aboriginal groups where these were provided to the proponent by the groups.
		4. Indigenous Peoples Consultation and Engagement Program	4. Indigenous Peoples Consultation and Engagement Program	4. Indigenous Peoples Engagement

[2] The 2011 Updated Guidelines for Federal Officials to Fulfill the Duty to Consult (the Guidelines) defines Aboriginal rights as: practices, traditions and customs integral to the distinctive culture of the Aboriginal group claiming the right that existing prior to contact with the Europeans (Van de Peet). In the context of Métis groups, Aboriginal rights means practices, traditions, and customs integral to the distinctive culture of the Métis group that existed prior to effective European control, that is, prior to the time when Europeans effectively established political and legal control in the claimed area (Powley). Generally, these rights are fact and site specific. For greater certainty, the Guidelines also define Aboriginal title as an Aboriginal right. Visit the Aboriginal Affairs and Northern Development Canada website at: www.aadnc-aandc.gc.ca/eng/1100100014680/1100100014681"

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	The information sources, methodology and findings of the assessment of subparagraph 5(1)(c) effects may be used to inform the assessment of potential adverse impacts of the project on potential or established Aboriginal or treaty rights, title and related interests. However, there may be distinctions between the adverse impacts on potential or established Aboriginal or treaty rights, title and related interests and subparagraph 5(1)(c) effects. The proponent will carefully consider the potential distinction between these two aspects and, where there are differences, will include the relevant information in its assessment. In terms of gathering views from Aboriginal groups with respect to both environmental effects of the project and the potential adverse impacts of the project on potential or established Aboriginal or treaty rights, title and related interests, the EIS will document: - VCs suggested by Aboriginal groups for inclusion in the EIS, whether they were included, and the rationale for any exclusions; - specific suggestions raised by each Aboriginal group for mitigating the effects of changes to the environment on Aboriginal peoples or accommodating potential adverse impacts of the project on potential or established Aboriginal or treaty rights, title and related interests; - views expressed by each Aboriginal group on the effectiveness of the mitigation or accommodation measures; - from the proponent's perspective, any potential cultural, social and/or economic impacts or benefits to each Aboriginal group identified that may arise as a result of the project . Include the perspectives of Aboriginal groups where these were provided to the proponent by the groups ; - any other comments, specific issues and concerns raised by Aboriginal groups and how the key concerns were responded to or addressed; - changes made to the project design and implementation directly as a result of discussions with Aboriginal groups; - where and how Aboriginal traditional knowledge was incorporated into the environmental effects assessment (including methodology, baseline conditions and effects analysis for all VCs) and the consideration of potential adverse impacts on potential or established Aboriginal or treaty rights, title and related interests and related mitigation measures; and - any additional issues and concerns raised by Aboriginal groups in relation to the environmental effects assessment and the potential adverse impacts of the project on potential or established Aboriginal or treaty rights, title and related interests. A suggested format for providing some of the information above is the creation of a tracking table of key issues raised by each Aboriginal group, including the concerns raised related to the Project, proposed mitigation options, and where appropriate, a reference to the proponent's analysis in the EIS. Information provided related to potential adverse impacts on potential or established Aboriginal or treaty rights will be considered by the Crown in meeting its common law duty to consult obligations as set out in the Updated Guidelines for Federal Officials to Fulfill the Duty to Consult (2011)[3].			4. Indigenous Peoples Engagement Appendix A.5 Mi'kmaq of Nova Scotia Engagement Log
5.1. Aboriginal groups to engage and engagement activities	With respect to engagement activities, the EIS will document: - the engagement activities undertaken with each Aboriginal group prior to the submission of the EIS, including the date and means of engagement (e.g., meeting, mail, telephone); - any future planned engagement activities; and - how engagement activities by the proponent allowed Aboriginal groups to understand the project and evaluate its effects on their communities, activities, potential or established Aboriginal or treaty rights, title and related interests. In preparing the EIS, the proponent will ensure that Aboriginal groups have access to timely and relevant information on the project and how the project may adversely impact them. The proponent will structure its Aboriginal engagement activities to provide adequate time for Aboriginal groups to review and comment on the relevant information. Engagement activities are to be appropriate to the groups' needs, arranged through discussions with the groups and in keeping with established consultation protocols, where available. The EIS will describe all efforts, successful or not, taken to solicit the information required from Aboriginal groups to support the preparation of the EIS. The proponent will ensure that views of Aboriginal groups are recorded and that each Aboriginal group is provided with opportunities to validate the interpretation of their views. The proponent will keep detailed tracking records of its engagement activities, recording all interactions with Aboriginal groups, the issues raised by each Aboriginal group and how the proponent addressed the concerns raised. The proponent will share these records with the Agency.	4. Indigenous Peoples Consultation and Engagement Program	4. Indigenous Peoples Consultation and Engagement Program	4. Indigenous Peoples Engagement Appendix A.5 Mi'kmaq of Nova Scotia Engagement Log

[3] Visit the Aboriginal Affairs and Northern Development Canada website at: www.aadnc-aandc.gc.ca/eng/1100100014680/1100100014681

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	For the Aboriginal groups expected to be most affected by the project, the proponent is expected to strive towards developing a productive and constructive relationship based on on-going dialogue with the groups in order to support information gathering and the effects assessment. These groups include: - Acadia First Nation - Annapolis Valley First Nation - Bear River First Nation - Chapel Island First Nation - Eskasoni First Nation - Glooscap First Nation - Membertou First Nation - Millbrook First Nation - Paq'tnkek (Afton) First Nation - Pictou Landing First Nation - Sipekne'katik First Nation - Wagmatcook First Nation - We'koqma'q First Nation - Assembly of Nova Scotia Mi'kmaq Chiefs and the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO) For the above groups, the proponent will strive to use primary data sources and hold face-to-face meetings to discuss concerns. The proponent will facilitate these meetings by making key EA summary documents (baseline studies, EIS, key findings, plain language summaries) accessible. The proponent will ensure there are sufficient opportunities for individuals and groups to provide oral input in the language of their choice. If possible, the proponent should consider translating information for theseAboriginal groups into the appropriate Aboriginal language(s) in order to facilitate engagement activities during the environmental assessment. The groups referenced above may change as more is understood about the environmental effects of the project and/or if the project or its components change during the EA. The Agency reserves the right to alter the list of Aboriginal groups that the proponent will engage as additional information is gathered during the assessment. In addition, for the purposes of good governance, the proponent should also provide information to and discuss potential environmental effects from the Project, as described under section 5 of CEAA 2012, with the Nova Scotia Native Council. Upon receipt of knowledge or information of potential effects to an Aboriginal group not listed above, the proponent shall provide that information to the Agency at the earliest opportunity.			4. Indigenous Peoples Engagement Appendix A.5 Mi'kmaq of Nova Scotia Engagement Log 6.14 Mi'kmaq of Nova Scotia
6. EFFECTS ASSESSMENT	-	6. Environmental Effects Assessment	5. Environmental Effects Assessment Methodology 6. Environmental Effects Assessment	5. Environmental Effects Assessment Methodology 6. Environmental Effects Assessment

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6.1. Project setting and baseline conditions	Based on the scope of project described in section 3 (Part 1), the EIS will present baseline information in sufficient detail to enable the identification of how the project could affect the VCs and an analysis of those effects. Should other VCs be identified during the conduct of the EA, the baseline condition for these components will also be described in the EIS. To determine the appropriate spatial boundaries to describe the baseline information, refer to section 3.3.3 (Part 1). As a minimum, the EIS will include a description of:	6. Subsections for each VC titled "Baseline Conditions"	6.x.x Subsections for each VC titled "Baseline Conditions"	Subsections for each VC titled "Baseline Conditions" 6.1.3 Noise 6.2.4 Air 6.3.4 Light 6.4.4. Greenhouse Gases 6.5.4 Geology, Soil, and Sediment 6.6.4 Groundwater 6.7.4 Water Quantity 6.7.5 Water Quality 6.8.4 Wetlands 6.9.4 Fish and Fish Habitat 6.10.4 Habitat and Flora 6.11.4 Terrestrial Fauna 6.12.5 Avifauna 6.13.4 Species of Conservation Interest and Species at Risk 6.14.4 Mi'kmaq of Nova Scotia 6.15.4 Physical Cultural Heritage 6.16.4 Socio-economic Conditions
6.1.1. Atmospheric environmental	- ambient air quality in the project areas and, for the mine site, the results of a baseline survey of ambient air quality, including but not limited to the following contaminants: total suspended particulates, fine particulates ($PM_{2.5}$), particulate matters up to 10 micrometers in size (PM_{-10}), sulfur oxides (SO_X), volatile organic compounds (VOCs) and nitrogen oxides (NO_X);existing greenhouse gas emissions in the project study areas; - current provincial/federal limits for greenhouse gas emission targets; - current ambient noise levels in the project area and key receptor points (e.g. Aboriginal communities, closest residences, seasonal cottages, cabins), including the results of a baseline ambient noise survey. Information on typical sound sources, geographic extent and temporal variations will be included; - existing ambient night-time light levels at the project site and at any other areas where project activities could have an effect on light levels. The EIS will describe night-time illumination levels during different weather conditions and seasons; and - historical records of relevant meteorological information (e.g. total precipitation: rain and snow); mean, maximum and minimum temperatures; and typical wind speed and direction.	6.1 Atmospheric Environment	6.1 Noise 6.2 Air 6.3 Light 6.4 Greenhouse Gases	6.1 Noise 6.2 Air 6.3 Light 6.4 Greenhouse Gases
6.1.2. Geology and geochemistry	- the surficial geology, bedrock and host rock geology of the deposit, including a table of geologic descriptions, geological maps and cross-sections of appropriate scale; - geomorphology, topography, structural fabric (e.g. fractures, faults, foliation and lineation) and geotechnical characteristics of areas proposed for construction of major project components; - the geochemical characterization of expected mine material such as waste rock, ore, low grade ore, tailings, overburden and potential construction material in order to predict metal leaching and acid rock drainage[4]; and - geological hazards that exist in the areas planned for the project facilities and infrastructure, including: - history of seismic activity in the area; - isostatic rise or subsidence; and - landslides, slope erosion and the potential for ground and rock instability, and subsidence following project activities.	6.2 Geology, Soil and Sediment Quality	6.5 Geology, Soil and Sediment Quality	6.5 Geology, Soil, and Sediment Quality

[4] The manual produced by the Mine Environment Neutral Drainage (MEND) Program, entitled, MEND Report 1.20.1, "Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials", Version 0 - December 2009 is a recommended reference for use in acid rock drainage and metal leaching prediction.

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6.1.3. Topography and soil	- baseline mapping and description of landforms and soils within the local and regional project area; - maps depicting soil depth by horizon and soil order within the mine site area to support soil salvage and reclamation efforts, and to outline potential for soil erosion; and - suitability of topsoil and overburden for use in the rehabilitation of disturbed areas.	6.2 Geology, Soil and Sediment Quality	6.5 Geology, Soil and Sediment Quality	6.5 Geology, Soil, and Sediment Quality
6.1.4. Groundwater and surface water	- the hydrogeology, including: - the hydrogeological context (e.g., hydrostratigraphy with aquifers and aquitards, major faults, extensive fractures, etc.) including the delineation of key stratigraphic and hydrogeologic boundaries; - the physical properties of the hydrogeological units (e.g., hydraulic conductivity, transmissivity, saturated thickness, storativity, porosity, specific yield); - the regional and local groundwater flow patterns and rates; - a discussion of the hydrogeologic, hydrologic, geomorphic, climatic and anthropogenic controls on groundwater flow; - temporal changes in groundwater flow (e.g., seasonal and long term changes in water levels); - baseline groundwater quality; and - a delineation and characterization of groundwater surface water interactions including the locations of groundwater discharge to surface water and surface water recharge to groundwater.	6.3 Groundwater Quality and Quantity 6.4 Surface Water Quality and Quantity	6.6 Groundwater Quality and Quantity 6.7 Surface Water Quality and Quantity	6.6 Groundwater Quality and Quantity 6.7 Surface Water Quantity and Quality
	- hydrogeological maps and cross-sections for the mine area to outline the extent of aquifers and aquitards, including bedrock fracture and fault zones, locations and depths of wells, groundwater types, springs, surface waters, and project facilities. Groundwater levels, potentiometric contours, flow directions, groundwater divides and areas of recharge and discharge should be included; - all groundwater monitoring wells, including their location, in respect to the project area, including geologic, hydrostratigraphic, piezometric and construction data (e.g., depths of surficial and bedrock units, water level, hydraulic conductivity, diameter and screen depth and intercepted aquifer unit); - monitoring protocol for collection of existing groundwater data; - an appropriate hydrogeologic model for the project area including a detailed conceptual model, which discusses the hydrostratigraphy and groundwater flow systems; the rationale for the selected model will be provided; a sensitivity analysis will be performed to test model sensitivity to climatic variations (e.g., recharge) and hydrogeologic parameters (e.g., hydraulic conductivity); - graphs or tables indicating the seasonal variations in groundwater levels, flow regime, and quality; - local and regional potable groundwater supplies and/or surface water, including their current use and potential for future use; - bedrock fracture sizes and orientations in relation to groundwater flow; - the delineation of drainage basins, at appropriate scales (water bodies and watercourses), including intermittent streams, flood risk areas and wetlands, boundaries of the watershed and subwatersheds, overlaid by key project components; - hydrological regimes, including monthly, seasonal and annual water flow (discharge) data; - for each affected water body, the total surface area, bathymetry, maximum and mean depths, water level fluctuations, type of substrate (sediments); - seasonal water quality field and lab analytical results (e.g. water temperature, turbidity, pH, dissolved oxygen profiles) and interpretation at several representative local stream and water body monitoring stations established at the project site; and - sediment quality analysis for key sites likely to receive mine effluents.			Appendix A.2c Appendix E.3 Appendix F.5 Appendix F.6 Appendix P.4

Beaver Dam Mine Project Updated 2021 Environmental Impact Statement Guidelines (CEAA 2016) Concordance Table (continued)

Guidelines Section	Guidelines for the Preparation of an Environmental Impact Statement pursuant to the *Canadian Environmental Assessment Act,* 2012 Beaver Dam Mine Project EIS Guidelines Descriptions	Applicable Corresponding 2017 EIS Section	Applicable Corresponding Revised 2019 EIS Section	Applicable Corresponding Updated 2021 EIS Section
6.1.5. Wetlands	Wetlands that may be affected by project activities will be characterized according to their location, size, type (wetland class and form), species composition and ecological function (Canadian Wetland Classification System, National Wetlands Working Group [NWWG] 1997). Efforts should focus on describing the wetlands with the greatest potential to be affected, including those within the project footprint. An overview of the key plant communities and animals that rely on wetlands will be presented. - The locations and extent of all wetlands in the project area will be mapped. The EIS will provide an estimate (in hectares) of each type of wetland ecosystem in the project area. This will include all wetlands previously mapped by the province, as well as wetlands identified by the study team through desktop analysis and field survey programs. - The desktop study to identify and determine the extent of wetlands within the Project area will be conducted using the provincial mapping and databases, aerial imagery, and 1:50,000 topographic mapping. - Nova Scotia requires wetland class to be based on the Canadian Wetland Classification System (NWWG 1997) and descriptions in the Nova Scotia Wetland Conservation Policy. Ecological function of all identified wetlands should be assessed and an evaluation of the following included: wildlife habitat potential (including rare and endangered species and overall plant community composition), groundwater recharge potential, the role of the wetland in surface flow regulation (stormwater retention and flood control), the potential role of the wetland in water quality improvement, and any other notable site specific functions that the wetland may provide. - For those potentially affected wetlands where the Federal Policy on Wetland Conservation would be applicable, and avoidance is deemed not possible, a detailed description of potential effects, and of the reasons why avoidance and minimization of impacts were determined to not be possible should be provided. The mitigation measures and monitoring plan, as well as a proposed compensation plan, should be consistent with those proposed for other projects in Atlantic Canada.	6.5 Wetlands	6.8 Wetlands	6.8 Wetlands
6.1.6. Fish and fish habitat	For potentially affected surface waters: - a characterization of fish populations on the basis of species and life stage, including information on the surveys carried out and the source of data available (e.g. location of sampling stations, catch methods, date of catches, species); - a list of any fish or invertebrate species at risk that are known to be present; - a description of the habitat by homogeneous section, including the length of the section, width of the channel from the high water mark (bankful width), water depths, type of substrate (sediments), aquatic and riparian vegetation, and photos; - a description of natural obstacles (e.g. falls, beaver dams) or existing structures (e.g. water crossings) that hinder the free passage of fish and the location of the obstacle or structure in relation to the site of the impact; - maps, at a suitable scale, indicating the surface area of potential or confirmed fish habitat for spawning, nursery, feeding, overwintering, migration routes, etc. This information should be linked to water depths (bathymetry) to identify the extent of a water body's littoral zone; and - the description and location of suitable habitats for fish species at risk that appear on federal and provincial lists and that are found or are likely to be found in the study area. Note that certain intermittent streams or wetlands may constitute fish habitat or contribute indirectly to fish habitat. The absence of fish at the time of the survey does not irrefutably indicate an absence of fish habitat.	6.6 Fish and Fish Habitat	6.9 Fish and Fish Habitat	6.9 Fish and Fish Habitat
6.1.7. Migratory birds and their habitat[5]	- the various ecosystems found in the project area likely to be affected based on existing information; - migratory and non-migratory birds (including landbirds, waterfowl, raptors, shorebirds, and other waterbirds); - year-round migratory bird use of the area (e.g., winter, spring migration, breeding season, fall migration), based on preliminary data from existing sources; and - the results of any baseline surveys and a description of the methodology. In addition to information obtained from previous environmental assessments in the area, naturalists and Aboriginal peoples, other relevant datasets should be consulted. Existing data will be supplemented by surveys where necessary. The EIS will give particular consideration to areas of concentration of birds, such as breeding, staging and/or wintering areas, species of conservation concern, as well as breeding areas of species low in number and high in the food chain.	6.9 Birds	6.12 Birds	6.12 Avifauna

[5] Surveys should be designed with reference to the Canadian Wildlife Service's guidance such as Technical Report No. 508, A Framework for the Scientific Assessment of Potential Project Impacts on Birds (Hanson et al. 2009). Appendix 3 of the Framework provides examples of project types and recommended techniques for assessing impacts on migratory birds.

Beaver Dam Mine Project Updated 2021 Environmental Impact Statement Guidelines (CEAA 2016) Concordance Table (continued)

Guidelines Section	Guidelines for the Preparation of an Environmental Impact Statement pursuant to the *Canadian Environmental Assessment Act,* 2012 Beaver Dam Mine Project EIS Guidelines Descriptions	Applicable Corresponding 2017 EIS Section	Applicable Corresponding Revised 2019 EIS Section	Applicable Corresponding Updated 2021 EIS Section
6.1.8. Species at Risk	- a list of all potential or known species at risk that appear on federal and provincial lists that may be affected by the project (fauna and flora), using existing data and literature as well as surveys to provide current field data; - a list of all federal species designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) for listing on Schedule 1 of the Species at Risk Act. This will include those species in the risk categories of extirpated, endangered, threatened and special concern[6]. For the purposes of the provincial EA, any species listed by the Nova Scotia Endangered Species Act and listed as S1, S2 or S3 by the Atlantic Canada Conservation Data Centre; - any published studies that describe the regional importance, abundance and distribution of species at risk; and - residences, seasonal movements, movement corridors, habitat requirements, key habitat areas, identified critical habitat and/or recovery habitat (where applicable) and general life history of species at risk that may occur in the project area, or be affected by the project. Consult recovery strategies for information on the critical habitat of endangered and threatened species, and consult management plans for information on habitat use of species of special status.	6.10 Species at Risk	6.13 Species of Conservation Interest and Species at Risk	6.13 Species of Conservation Interest and Species at Risk
6.1.9. Ecosystems	The EIS will describe the various ecosystems (e.g. grassland, temperate forest) found in the project area which are likely to be affected by the project. For the provincial EA, the description of forest ecosystems within the project footprint should be undertaken using the Nova Scotia Forest Ecosystem Classification (http://novascotia.ca/natr/forestry/veg-types/).	6.7 Habitat and Flora 6.8 Terrestrial Fauna	6.10 Habitat and Flora 6.11 Terrestrial Fauna	6.10 Habitat and Flora 6.11 Terrestrial Fauna
6.1.10. Aboriginal peoples	With respect to potential effects on Aboriginal peoples and the related VCs, baseline information will be provided for each Aboriginal group identified in section 5 (and any groups identified after these guidelines are finalized). Baseline information will describe and characterize the elements in paragraph 5(1)(c) of CEAA 2012 based on the spatial and temporal scope selected for the assessment according to the factors outlined in Part 1, section 3.3.3. Baseline information will also characterize the region al context of each of the paragraph 5(1)(c) elements to support the assessment of project related effects and cumulative effects. Baseline information will be sufficient to provide a comprehensive understanding of the current state of each VC. Baseline information for current use of lands and resources for traditional purposes will focus on the traditional activity (e.g., hunting, fishing, trapping, plant gathering) and include a characterization of all attributes of the activity that can be affected by environmental change. This includes not only identifying species of importance but also assessing the quality and quantity of preferred traditional resources and locations, timing (e.g., seasonality, access restrictions, distance from community), ambient/sensory environment (e.g., noise, air quality, visual landscape, presence of others) and cultural environment (e.g., historical/generational connections, preferred areas). Specific aspects that will be considered include, but are not limited to: - location of traditional territory (including maps where available); - location of reserves and communities; - location of permanent residences, hunting camps and cabins; - traditional uses currently practiced or practiced in recent history; - fish, wildlife, birds, plants or other natural resources of importance for traditional use; - places where fish, wildlife, birds, plants or other natural resources are harvested; - access and travel routes for conducting traditional practices; - frequency, duration or timing of traditional practices; - cultural values associated with the area affected by the project and the traditional uses identified; - areas of concentration of migratory animals, such as breeding, denning and/or wintering areas; - ungulates, furbearers, amphibians, small mammals, and their habitat; - existing or proposed protected areas, special management areas, and conservation areas in the regional study area; - wetlands most likely to be affected by project activities according to their location, size, type (wetland class and form), species composition and ecological function (Canadian Wetland Classification System, National Wetlands Working Group, 1997); - key plant communities and animals that rely on wetlands; and - submerged floating and emergent aquatic vegetation.	6.11 Indigenous Peoples App B Summary of Consultation	6.14 Indigenous Peoples	6.14 Mi'kmaq of Nova Scotia

[6] Proponents are encouraged to consult COSEWIC's annual report for a listing of the designated wildlife species: http://www.cosewic.gc.ca/eng/sct0/index_e.cfm#sar

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	Baseline information for health[7] and socio-economic conditions will include the functioning and health of the socio-economic environment, encompassing a broad range of matters that affect communities in the study area in a way that recognizes interrelationships, system functions and vulnerabilities. Specific aspects that will be considered include, but are not limited to: - drinking water sources (permanent, seasonal, periodic, or temporary); - reliance on country foods (also known as traditional foods) including food that is trapped, fished, hunted, harvested or grown for subsistence or medicinal purposes, outside of the commercial food chain; - which country foods are consumed by which Aboriginal groups, how frequently and where these country foods are harvested; - commercial activities (e.g. fishing, trapping, hunting, forestry, outfitting); - recreational uses; Any other baseline information that supports the analysis of predicted effects on Aboriginal peoples will be included as necessary. The EIS will also indicate how input from Aboriginal groups was used in establishing the baseline conditions related to health and socio -economics, physical and cultural heritage and current use of lands and resources for traditional purposes.			6.14 Mi'kmaq of Nova Scotia 6.16 Socio-economic Conditions Appendix C.2
6.1.11. Other environmental changes arising as a result of a federal decision or due to effects on federal lands, lands in another province or lands outside Canada	Should there be the potential for a change to the environment arising as a result of a federal decision(s), or on federal lands, lands in another province or lands outside Canada, the EIS will include baseline information on the environmental component likely to be affected (if this information is not already covered in other subsections of these guidelines). For example, if an authorization provided under the Fisheries Act was to result in the flooding of key wildlife habitat, baseline information should be provided on the wildlife species likely to be affected.	6.14.5 Environmental Effects Incidental of Decisions Made by a Federal Authority	6.17.5 Environmental Effects Incidental of Decisions Made by a Federal Authority	6.17.6 Environmental Effects Incidental of Decisions Made by a Federal Authority
6.2. Predicted changes to the physical environment	The assessment will include a consideration of the predicted changes to the environment as a result of the project being carried out or as a result of any powers duties or functions that are to be exercised by the federal government in relation to the project. These predicted changes to the environment are to be considered in relation to each phase of the project (construction, operation, decommissioning, and abandonment) and are to be described in terms of the geographic extent of the changes, the duration and frequency of change, and whether the environmental changes are reversible or irreversible.	6.X.6 Subsections for each VC titled "Project Interactions and Effects"	6.X.X Subsections for each VC titled "Project Activities Interactions and Effects"	Subsections for each VC titled "Project Activities/Interactions and Effects" 6.1.7 Noise 6.2.7 Air 6.3.7 Light 6.4.7 Greenhouse Gases 6.5.7 Geology, Soil, and Sediment 6.6.7 Groundwater 6.7.8 Water Quantity and Quality 6.8.7 Wetlands 6.9.7 Fish and Fish Habitat 6.10.7 Habitat and Flora 6.11.7 Terrestrial Fauna 6.12.8 Avifauna 6.13.7 Species of Conservation Interest and Species at Risk 6.14.7 Mi'kmaq of Nova Scotia 6.15.7 Physical Cultural Heritage 6.16.10 Socio-economic Conditions

[7] The proponent should refer to Health Canada's Useful Information for Environmental Assessments document in order to include the appropriate baseline information relevant to human health. This document can be obtained at http://www.hc-sc.gc.ca/ewhsemt/pubs/eval/environ_assess-eval/index-eng.php

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6.2.1. Changes to the atmospheric environment	- changes in air quality - changes in greenhouse gas emissions levels; - changes in ambient noise levels; and - changes in night-time light levels.	6.1.6 Project Activities Interactions and Effects	6.1.6 Project Activities and Noise Interactions and Effects 6.2.5 Project Activities and Air Interactions and Effects 6.3.6 Project Activities and Light Interactions and Effects 6.4.6 Project Activities and GHG Interactions and Effects	6.1.7 Project Activities and Noise Interactions and Effects 6.2.7 Project Activities and Air Interactions and Effects 6.3.7 Project Activities and Light Interactions and Effects 6.4.7 Project Activities and GHG Interactions and Effects
6.2.2. Changes to groundwater and surface water	- changes to turbidity, oxygen level, water temperature, ice regime, water quality; - changes to the hydrological and hydrometric conditions; - changes to groundwater flow regime (directions and rates of flow), groundwater recharge/discharge areas and any changes to groundwater infiltration areas; - changes to water quality attributed to acid rock drainage and metal leaching associated with the storage of waste rock, ore, low grade ore, tailings, overburden and potential construction material, including: - short term metal leaching properties; - longer term rates of acid generation (if any) and metal leaching; - estimates of the potential for mined materials (including waste rock, tailings and low grade ore) to be sources of acid rock drainage or metal leaching; - estimates of potential time to the onset of acid rock drainage or metal leaching; - quantity and quality of leachate from samples of tailings, waste rock, and ore; - quantity and quality of effluent to be released from the site into the receiving waters; - quality of humidity cell or column test liquid from acid rock testing; - sensitivity analysis to assess the effects of imperfect segregation of waste rock; - pit water chemistry during operation and post-closure, and pit closure management measures (e.g. flooding). This will include geochemical modelling of pit water quality in the post-closure period; - surface and seepage water quality and flow rates from the waste rock dumps, tailings/waste rock impoundment facility, stockpiles and other infrastructure during operation and post-closure; - drawings and/or figures showing groundwater contours (piezometric surfaces) to illustrate projected seepage conditions for the applicable project components; and - a discussion of the potential for and timing of off-site migration of impacted groundwater, and an analysis of contaminant attenuation capacities within the hydrogeological units within the project area.	6.3.6 Project Activities and Surface Water Interactions and Effects; 6.4.6 Project Activities and Groundwater Quality and Quantity Interactions and Effects	6.6.6 Project Activities and Groundwater Quality and Quantity Interactions and Effects 6.7.6 Project Activities and Surface Water Interactions and Effects	6.6.7 Project Activities and Groundwater Quality and Quantity Interactions and Effects 6.7.8 Project Activities and Surface Water Interactions and Effects
6.2.3. Changes to wetlands	- changes in wetland size, function, or resident flora or habitat; - changes to hydrological conditions; - identification of all direct and indirect effects on wetlands; and - if warranted, a preliminary wetland compensation plan as detailed in the Nova Scotia Wetland Conservation Policy.	6.5.6 Project Activities and Wetlands Interactions and Effects	6.8.6 Project Activities and Wetlands Interactions and Effects	6.8.7 Project Activities and Wetlands Interactions and Effects
6.2.4. Changes to the terrestrial landscape	- overall description of changes related to landscape disturbance; - changes to migratory bird habitat, including losses, structural changes, fragmentation of habitat and wetlands (cover types, ecological land unit in terms of quality, quantity, diversity, distribution and functions) used by migratory birds; - changes to critical habitat for provincially or federally listed species at risk; and - changes to key habitat for species important to Aboriginal current use of resources.	6.2.6 Project Activities Interactions and Effects; 6.7.6 Project Activities and Habitat and Flora Interactions and Effects; 6.8.6 Project Activities and Terrestrial Fauna Interactions and Effects	6.10.6 Project Activities and Habitat and Flora Interactions and Effects 6.11.6 Project Activities and Terrestrial Fauna Interactions and Effects	6.10.7 Project Activities and Habitat and Flora Interactions and Effects 6.11.7 Project Activities and Terrestrial Fauna Interactions and Effects

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6.3. Predicted effects on valued components	Based on the predicted changes to the environment identified in section 6.2, the proponent is to assess the environmental effects of the project on VCs including those listed below. Additional VCs may be identified through the analysis of environmental effects and based on federal or provincial requirements.	6.X.6 Subsections for each VC titled "Project Interactions and Effects"	6.X.X Subsections for each VC titled "Project Interactions and Effects"	Subsections for each VC titled "Project Interactions and Effects" 6.1.7 Noise 6.2.7 Air 6.3.7 Light 6.4.7 Greenhouse Gases 6.5.7 Geology, Soil, and Sediment 6.6.7 Groundwater 6.7.8 Water Quantity and Quality 6.8.7 Wetlands 6.9.7 Fish and Fish Habitat 6.10.7 Habitat and Flora 6.11.7 Terrestrial Fauna 6.12.8 Avifauna 6.13.7 Species of Conservation Interest and Species at Risk 6.14.7 Mi'kmaq of Nova Scotia 6.15.7 Physical Cultural Heritage 6.16.10 Socio-economic Conditions
6.3.1. Fish and fish habitat	- the identification of any potential harmful alteration, disruption or destruction of fish habitat, including the calculations of any potential habitat loss (temporary or permanent) in terms of surface areas (e.g. spawning grounds, fry-rearing areas, feeding), and in relation to watershed availability and significance. The assessment will include a consideration of: - the geomorphological changes and their effects on hydrodynamic conditions and fish habitats (e.g. modification of substrates, dynamic imbalance, silting of spawning beds); - the modifications of hydrological and hydrometric conditions on fish habitat and on the fish species' life cycle activities (e.g. reproduction, fry-rearing, movements); - potential impacts on riparian areas that could affect aquatic biological resources and productivity taking into account any anticipated modifications to fish habitat; and - any potential imbalances in the food web in relation to baseline. - the effects of changes to the aquatic environment on fish and their habitat, including: - estimates of fish mortality for various species and life stage (e.g. egg, juvenile, adult); - the anticipated changes in the composition and characteristics of the populations of various fish species, included shellfish and forage fish; - any modifications in migration or local movements (upstream and downstream migration, and lateral movements) following the construction and operation of works (physical and hydraulic barrier); - any reduction in fish populations as a result of potential overfishing due to increased access to the project area; and - any modifications and use of habitats by federally or provincially listed fish species. - a discussion of how project construction timing correlates to key fisheries windows for freshwater and anadromous species, and any potential impacts resulting from overlapping periods; and - a discussion of how vibration caused by blasting may affect fish behaviour, such as spawning or migrations.	6.6.6 Project Activities and Fish and Fish Habitat Interactions and Effects	6.9.6 Project Activities and Fish and Fish Habitat Interactions and Effects	6.9.7 Project Activities and Fish and Fish Habitat Interactions and Effects
6.3.2. Migratory birds	- direct migratory bird mortality that could be caused by clearing of sites or birds and nests being in contact with contaminated waters (e.g., tailing impoundment area); - collision risk of migratory birds with any project infrastructures; and - indirect effects caused by increased disturbance (e.g. noise, light, presence of workers), relative abundance movements and changes in migratory bird habitat.	6.9.6 Project Activities and Birds Interactions and Effects	6.12.7 Project Activities and Birds Interactions and Effects	6.12.8 Project Activities and Avifauna Interactions and Effects

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6.3.3. Species at risk	- for each habitat unit, the potential effects of the project on federally listed species at risk and those species listed by the Committee on the Status of Endangered Wildlife in Canada classified as extirpated, endangered, threatened or of special concern (flora and fauna) and their critical habitat. Also the potential effects to any species listed by the Nova Scotia Endangered Species Act and listed as S1, S2 or S3 by the Atlantic Canada Conservation Data Centre.	6.10.6 Project Activities and Species at Risk Interactions and Effects	6.13.6 Project Activities and Species at Risk Interactions and Effects	6.13.7 Project Activities and Species at Risk Interactions and Effects
6.3.4. Aboriginal peoples	With respect to Aboriginal peoples, a description and analysis of how changes to the environment caused by the project will affect each Aboriginal group's: - current use of land and resources for traditional purposes. This assessment will characterize the effect(s) on the use or activity (e.g., hunting, fishing, trapping, plant gathering) as a result of the underlying changes to the environment (i.e., how will the activity change if the project proceeds). The underlying changes to the environment will also be described, including, but not limited to: - any changes to resources (fish, wildlife, birds, plants or other natural resources) used for traditional purposes (e.g. hunting, fishing, trapping, collection of medicinal plants, use of sacred sites); - any changes or alterations to access into the areas used for traditional purposes, including development of new roads, deactivation or reclamation of access roads and changes to waterways that affect navigation; - any changes to the environment that affect cultural value or importance associated with traditional uses or areas affected by the project (e.g. values or attributes of the area that make it important as a place for inter-generational teaching of language or traditional practices, communal gatherings, integrity of preferred practice areas); - how timing of project activities that have the potential to affect Aboriginal peoples (e.g., construction, blasting, discharges) interacts with the timing of traditional practices, and any potential effects resulting from overlapping periods; - any changes to the alienation of lands from Aboriginal traditional use, including consideration of the regional context for traditional use, and the value of the project area in that regional context; - any changes to environmental quality (e.g. air, water, soil) or the sensory environment (e.g. noise, light, visual landscape), or perceived disturbance of the environment (e.g. fear of contamination of water or country foods) that could detract from Aboriginal use of the area or lead to avoidance of the area; and - an assessment of the potential to return affected areas to pre-disturbance conditions to support traditional practices. - human health, focusing on effects on health outcomes or risks in consideration of but not limited to potential changes in air quality, effects of vibration from blasting, quality and availability of country foods, water quality and quantity (drinking and recreational), and noise exposure. When risks to human health due to changes in one or more of these components are predicted, a complete Human Health Risk Assessment (HHRA) examining all exposure pathways for pollutants of concern may be necessary to adequately characterize potential risks to human health. Where adverse health effects are predicted, any incidental effects such as effects on current use of lands and resources for traditional purposes will also be assessed. The proponent must provide a justification if it determines that an assessment of the potential for contamination of country foods is not required or if some contaminants are excluded from the assessment.; - socio-economic conditions, including but not limited to: - the use of navigable waters; - forestry and logging operations; - commercial fishing, hunting, trapping, and gathering activities; - commercial outfitters; and - recreational use. - physical and cultural heritage, and structure, site or thing of historical, archaeological, paleontological or architectural significance to Aboriginal groups, including, but not limited to: - the loss or destruction of physical and cultural heritage; - changes to access to physical and cultural heritage; and - changes to the cultural value or importance associated with physical and cultural heritage. Other effects of changes to the environment on Aboriginal peoples should be reflected as necessary.	6.11.6 Project Activities and Indigenous Peoples Interactions and Effects	6.14.6 Project Activities and Indigenous Peoples Interactions and Effects	6.14.7 Project Activities and Mi'kmaq of Nova Scotia Interactions and Effects 6.15.7 Project Activities and Physical and Cultural Heritage Interactions and Effects Appendix C.2

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6.4. Other valued components that may be affected as a result of a federal decision or due to effects on federal lands, lands in another province or lands outside Canada	If there is the potential for a change to the environment arising as a result of a federal decision(s), for example an authorisation under section 35 of the Fisheries Act, the EIS should include a description of the specific project components for which a federal authorisation/decision is required, and an assessment of any other VCs (not already covered in other subsections of these guidelines) that may be affected by the changes to the environment caused by these specific project components. If there is the potential for the project to result in environmental changes on federal lands, another province, or another country, then VCs of importance not already identified should be included. For example, if the project will result in the generation of greenhouse gas emissions, the EIS should include a description of the project's greenhouse gas emissions in a regional, provincial, national or international context if applicable. Suggested VCs are noted below for this project.	6.X.6 Subsections for each VC titled "Project Interactions and Effects"	6.X.X Subsections for each VC titled "Project Interactions and Effects"	Subsections for each VC titled "Project Interactions and Effects" 6.1.7 Noise 6.2.7 Air 6.3.7 Light 6.4.7 Greenhouse Gases 6.5.7 Geology, Soil, and Sediment 6.6.7 Groundwater 6.7.8 Water Quantity and Quality 6.8.7 Wetlands 6.9.7 Fish and Fish Habitat 6.10.7 Habitat and Flora 6.11.7 Terrestrial Fauna 6.12.8 Avifauna 6.13.7 Species of Conservation Interest and Species at Risk 6.14.7 Mi'kmaq of Nova Scotia 6.15.7 Physical Cultural Heritage 6.16.10 Socio-economic Conditions
6.4.1. Atmospheric environment	- effects on the atmospheric environment (e.g. air emissions, noise, light) that could occur within Beaver Lake Indian Reserve 17 and as a result of project components that could require a federal decision.	6.1.6 Project Activities Interactions and Effects	6.1.6 Project Activities and Noise Interactions and Effects 6.2.5 Project Activities and Air Interactions and Effects 6.3.6 Project Activities and Light Interactions and Effects 6.4.6 Project Activities and GHG Interactions and Effects	6.1.7 Project Activities and Noise Interactions and Effects 6.2.7 Project Activities and Air Interactions and Effects 6.3.7 Project Activities and Light Interactions and Effects 6.4.7 Project Activities and GHG Interactions and Effects
6.4.2. Water quality and quantity	- all direct and indirect effects on water quality and quantity in Beaver Lake Indian Reserve 17 and those affected by project components that could require a federal decision.	6.3.6. Project Activities and Surface Water Interactions and Effects 6.4.6 Project Activities and Groundwater Quality and Quantity Interactions and Effects	6.6.6. Project Activities and Groundwater Quality and Quantity Interactions and Effects 6.7.6 Project Activities and Surface Water Interactions and Effects	6.6.7 Project Activities and Groundwater Quality and Quantity Interactions and Effects 6.7.8 Project Activities and Surface Water Interactions and Effects
6.4.3. Wetlands	- all direct and indirect effects on wetlands in Beaver Lake Indian Reserve 17 and those affected by project components that could require a federal decision.	6.5.6 Project Activities and Wetlands Interactions and Effects	6.8.6 Project Activities and Wetlands Interactions and Effects	6.8.7 Project Activities and Wetlands Interactions and Effects
6.4.4. Plants	- all direct and indirect effects on plants in Beaver Lake Indian Reserve 17 and those affected by project components that could require a federal decision.	6.7.6 Project Activities and Habitat and Flora Interactions and Effects	6.10.6 Project Activities and Habitat and Flora Interactions and Effects	6.10.7 Project Activities and Habitat and Flora Interactions and Effects
6.4.5. Wildlife	- all direct and indirect effects on wildlife (e.g. furbearers) in Beaver Lake Indian Reserve 17 and those affected by components of the Project that could require a federal decision.	6.8.6 Project Activities and Terrestrial Fauna Interactions and Effects	6.11.6 Project Activities and Terrestrial Fauna Interactions and Effects	6.11.7 Project Activities and Terrestrial Fauna Interactions and Effects
6.4.6. Health and socio-economic conditions	- a description and analysis of how changes to the environment caused by project components that could require a federal decision could affect heath and socio-economic conditions of non-Aboriginal peoples (e.g. tourism, hunting and trapping, hiking).	6.13.6 Project Activities Interactions and Effects	6.16.7 Project Activities and Socioeconomic Interactions and Effects	6.16.10 Project Activities and Socioeconomic Interactions and Effects

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Guidelines Section	Guidelines for the Preparation of an Environmental Impact Statement pursuant to the *Canadian Environmental Assessment Act,* 2012 Beaver Dam Mine Project EIS Guidelines Descriptions	Applicable Corresponding 2017 EIS Section	Applicable Corresponding Revised 2019 EIS Section	Applicable Corresponding Updated 2021 EIS Section
6.4.7. Physical and cultural heritage and structures, sites or things of historical, archaeological, paleontological or architectural significance	- a description and analysis of how changes to the environment caused by project components that could require a federal decision could affect physical and cultural heritage and structuress, sites or things of historical, archaeological, paleontological or architectural significance of non-Aboriginal People.	6.12.6 Project Activities Interactions and Effect	6.15.6 Project Activities and Physical and Cultural Heritage Interactions and Effects	6.15.7 Project Activities and Physical and Cultural Heritage Interactions and Effects
6.5. Mitigation	Every EA conducted under CEAA 2012 will consider measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project. Each measure will be specific, achievable, measurable and verifiable, and described in a manner that avoids ambiguity in intent, interpretation and implementation. Mitigation measures may be considered for inclusion as conditions in the EA decision statement and/or in other compliance and enforcement mechanisms provided by other authorities' permitting or licensing processes. As a first step, the proponent is encouraged to use an approach based on the avoidance and reduction of the effects at the source. Such an approach may include the modification of the design of the project or relocation of project components. The EIS will describe the standard mitigation practices, policies and commitments that constitute technically and economically feasible mitigation measures and that will be applied as part of standard practice regardless of location (including the measures directed at promoting beneficial or mitigating adverse socio-economic effects. The EIS will then describe the project's environmental protection plan and its environmental management system, through which the proponent will deliver this plan. The plan will provide an overall perspective on how potentially adverse effects would be minimized and managed over time. The EIS will further discuss the mechanisms the proponent would use to require its contractors and sub-contractors to comply with these commitments and policies and with auditing and enforcement programs. The EIS will then describe mitigation measures that are specific to each environmental effect identified. Measures will be written as specific commitments that clearly describe how the proponent intends to implement them and the environmental outcome the mitigation is designed to address. Where mitigation measures have been identified in relation to species and/or critical habitat listed under the Species at Risk Act, the mitigation measures will be consistent with any applicable recovery strategy and action plans.	6.X.7 Subsections for each VC titled "Mitigation and Monitoring"	6.X.X Subsections for each VC titled "Mitigation"	Subsections for each VC titled "Mitigation" 6.1.8 Noise 6.2.8 Air 6.3.8 Light 6.4.8 Greenhouse Gases 6.5.8 Geology, Soil, and Sediment 6.6.8 Groundwater 6.7.9 Water Quantity and Quality 6.8.8 Wetlands 6.9.8 Fish and Fish Habitat 6.10.8 Habitat and Flora 6.11.8 Terrestrial Fauna 6.12.9 Avifauna 6.13.8 Species of Conservation Interest and Species at Risk 6.14.8 Mi'kmaq of Nova Scotia 6.15.8 Physical Cultural Heritage 6.16.11 Socio-economic Conditions
	The EIS will specify the actions, works, minimal disturbance footprint techniques, best available technology, corrective measures or additions planned during the project's various phases to eliminate or reduce the significance of adverse effects. The impact statement will also present an assessment of the effectiveness of the proposed technically and economically feasible mitigation measures. The reasons for determining if the mitigation measure reduces the significance of an adverse effect will be made explicit. The EIS will indicate what other technically and economically feasible mitigation measures were considered, and explain why they were rejected. Trade-offs between cost savings and effectiveness of the various forms of mitigation will be justified. The EIS will identify who is responsible for the implementation of these measures and the system of accountability. Where mitigation measures are proposed to be implemented for which there is little experience or for which there is some question as to their effectiveness, the potential risks and effects to the environment should those measures not be effective will be clearly and concisely described. In addition, the EIS will identify the extent to which technology innovations will help mitigate environmental effects. Where possible, it will provide detailed information on the nature of these measures, their implementation, management and the requirements of the follow-up program. Adaptive management is not considered as a mitigation measure, but if the follow-up program (refer to section 8) indicates that corrective action is required, the proposed approach for managing the action should be identified.			2.10 Alternative Means of Carrying out the Project 9 Summary of the Environment al Impact Statement, Table 9.1-1 Summary of Key Mitigation Measures by Valued Component

Beaver Dam Mine Project Updated 2021 Environmental Impact Statement Guidelines (CEAA 2016) Concordance Table (continued)

Guidelines Section	Guidelines for the Preparation of an Environmental Impact Statement pursuant to the *Canadian Environmental Assessment Act,* 2012 Beaver Dam Mine Project EIS Guidelines Descriptions	Applicable Corresponding 2017 EIS Section	Applicable Corresponding Revised 2019 EIS Section	Applicable Corresponding Updated 2021 EIS Section
6.6. Significance of residual effects	After having established the technically and economically feasible mitigation measures, the EIS will present any residual environmental effects of the project on the VCs identified in section 6.3. The residual effects will be described, even if very small or deemed insignificant. The EIS will then provide an analysis of the significance of the residual environmental effects that are considered adverse, using guidance described in section 4 of the Agency's reference guide Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects12 . The EIS will identify the criteria used to assign significance ratings to any predicted adverse effects. It will contain clear and sufficient information to enable the Agency, technical and regulatory agencies, Aboriginal groups and the public to review the proponent's analysis of the significance of effects. The EIS will document the terms used to describe the level of significance. The following criteria should be used in determining the significance of residual effects: - magnitude; - geographic extent; - duration; - frequency; - reversibility; - ecological and social context; and - existence of environmental standards, guidelines or objectives for assessing the impact. In assessing significance against these criteria the proponent will, where possible, use relevant existing regulatory documents, environmental standards, guidelines, or objectives such as prescribed maximum levels of emissions or discharges of specific hazardous agents into the environment. The EIS will contain a section which explains the assumptions, definitions and limits to the criteria mentioned above in order to maintain consistency between the effects on each VC. Where significant adverse effects are identified, the EIS will set out the probability (likelihood) that they will occur, and describe the degree of scientific uncertainty related to the data and methods used within the framework of its environmental analysis.	6.X.8 Subsections for each VC titled "Residual effects and Significance"	6.X.X Subsections for each VC titled "Residual Effects and Significance"	Subsections for each VC titled "Residual Effects and Significance" 6.1.9 Noise 6.2.9 Air 6.3.9 Light 6.4.9 Greenhouse Gases 6.5.9 Geology, Soil, and Sediment 6.6.9 Groundwater 6.7.10 Water Quantity and Quality 6.8.9 Wetlands 6.9.9 Fish and Fish Habitat 6.10.9 Habitat and Flora 6.11.9 Terrestrial Fauna 6.12.10 Avifauna 6.13.9 Species of Conservation Interest and Species at Risk 6.14.9 Mi'kmaq of Nova Scotia 6.15.9 Physical Cultural Heritage 6.16.11 Socio-economic Conditions
6.7. Other effects to consider	-	6.15 Accidents and Malfunctions 7 Effects of the Environment on the Project 8 Cumulative Effects Assessment	6.18 Accidents and Malfunctions 7 Effects of the Environment on the Project 8 Cumulative Effects Assessment	6.18 Accidents and Malfunctions 7 Effects of the Environment on the Project 8 Cumulative Effects Assessment

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Guidelines Section	Guidelines for the Preparation of an Environmental Impact Statement pursuant to the *Canadian Environmental Assessment Act*, 2012 Beaver Dam Mine Project EIS Guidelines Descriptions	Applicable Corresponding 2017 EIS Section	Applicable Corresponding Revised 2019 EIS Section	Applicable Corresponding Updated 2021 EIS Section
6.7.1. Effects of potential accidents or malfunctions	The failure of certain works caused by human error or exceptional natural events (e.g. flooding, earthquake) could cause major effects. The proponent will therefore conduct an analysis of the risks of accidents and malfunctions, determine their effects and present a preliminary emergency measures. Taking into account the lifespan of different project components, the proponent will identify the probability of potential accidents and malfunctions related to the project, including an explanation of how those events were identified, potential consequences (including the environmental effects as defined in section 5 of CEAA 2012), the plausible worst case scenarios and the effects of these scenarios. This assessment will include an identification of the magnitude of an accident and/or malfunction, including the quantity, mechanism, rate, form and characteristics of the contaminants and other materials likely to be released into the environment during the accident and malfunction events and would potentially result in an adverse environmental effect as defined in section 5 of CEAA 2012. The EIS will describe the safeguards that have been established to protect against such occurrences and the contingency and emergency response procedures in place if such events do occur.	6.15 Accidents and Malfunctions	6.18 Accidents and Malfunctions	6.18 Accidents and Malfunctions
6.7.2. Effects of the environment on the project	The EIS will take into account how local conditions and natural hazards, such as severe and/or extreme weather conditions and external events (e.g. flooding, drought, ice jams, landslides, erosion, subsidence, fire, outflow conditions and seismic events) could adversely affect the project and how this in turn could result in impacts to the environment (e.g., extreme environmental conditions result in malfunctions and accidental events). These events will be considered in different probability patterns (i.e., 5-year flood vs. 100-year flood). Longer-term effects of climate change will also be discussed up to the projected post-closure phase of the project. This discussion will include a description of climate data used. For the provincial assessment the proponent will consider the Guide to Considering Climate Change in Environmental Assessments in Nova Scotia. The EIS will provide details of planning, design and construction strategies intended to minimize the potential environmental effects of the environment on the project.	7 Effects of the Environment on the Project	7 Effects of the Environment on the Project	7 Effects of the Environment on the Project
6.7.3. Cumulative effects assessment	The proponent will identify and assess the project's cumulative effects using the approach described in the Agency's Operational Policy Statement entitled Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012 and the guide entitled Cumulative Effects Assessment Practitioners' Guide, 1999[8]. Cumulative effects are defined as changes to the environment due to the project combined with the existence of other past, present and reasonably foreseeable physical activities. Cumulative effects may result if: - implementation of the project being studied may cause direct residual adverse effects on the valued components, taking into account the application of technically and economically feasible mitigation measures; and - the same valued components may be affected by other past, present or reasonably foreseeable physical activities. Valued components that would not be affected by the project or would be affected positively by the project can, therefore, be omitted from the cumulative effects assessment. A cumulative effect on an environmental component may, however, be important even if the assessment of the project's effects on this component reveals that the effects of the project are minor. In its EIS, the proponent will: - identify and provide a rationale for the valued components that will constitute the focus of the cumulative effects assessment, emphasizing this assessment on the VCs most likely to be affected by the project and other project and activities. To this end, the proponent must consider, without limiting itself thereto, the following components likely to be affected by the project: - fish and fish habitat; - migratory birds; - species at risk; and - Aboriginal peoples.	8 Cumulative Effects Assessment	8 Cumulative Effects Assessment	8 Cumulative Effects Assessment

[8] Visit the Canadian Environmental Assessment Agency's website at: www.ceaa-acee.gc.ca/

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Guidelines Section	Guidelines for the Preparation of an Environmental Impact Statement pursuant to the *Canadian Environmental Assessment Act,* 2012 Beaver Dam Mine Project EIS Guidelines Descriptions	Applicable Corresponding 2017 EIS Section	Applicable Corresponding Revised 2019 EIS Section	Applicable Corresponding Updated 2021 EIS Section
	- identify and justify the spatial and temporal boundaries for the cumulative effects assessment for each VC selected. The boundaries for the cumulative effects assessments will generally be different for each VC considered. These cumulative effects boundaries will also generally be larger than the boundaries for the corresponding project effects;			8 Cumulative Effects Assessment
	- identify the sources of potential cumulative effects. Specify other projects or activities that have been or that are likely to be carried out that could cause effects on each selected VC within the boundaries defined, and whose effects would act in combination with the residual effects of the project. This assessment may consider the results of any relevant study conducted by a committee established under section 73 or 74 of CEAA 2012; - assess the cumulative effects on each VC selected by comparing the future scenario with the project and without the project. Effects of past activities (activities that have been carried out) will be used to contextualize the current state of the VC. In assessing the cumulative effects on current use of lands and resources for traditional purposes by Aboriginal peoples, the assessment will focus on the cumulative effects on the activity (e.g., hunting, fishing, trapping, plant harvesting). - describe the mitigation measures that are technically and economically feasible. The proponent shall assess the effectiveness of the measures applied to mitigate the cumulative effects. In cases where measures exist that are beyond the scope of the proponent's responsibility that could be effectively applied to mitigate these effects, the proponent will identify these effects and the parties that have the authority to act. In such cases, the EIS will summarize the discussions that took place with the other parties in order to implement the necessary measures over the long term; - determine the significance of the cumulative effects; and - develop a follow-up program to verify the accuracy of the assessment or to dispel the uncertainty concerning the effectiveness of mitigation measures for certain cumulative effects. The proponent is encouraged to consult with key stakeholders and Aboriginal groups prior to finalizing the choice of VCs and the appropriate boundaries to assess cumulative effects.			8 Cumulative Effects Assessment
7. SUMMARY OF ENVIRONMENT EFFECTS ASSESSMENT	The EIS will contain a table summarising the following key information: - potential environmental effects; - proposed mitigation measures to address the effects identified above; and - potential residual effects and the significance of the residual environmental effects. The summary table will be used in the EA Report prepared by the Agency. An example of a format for the key summary table is provided in Appendix 1 of this document. In a second table, the EIS will summarize all key mitigation measures and commitments made by the proponent which will more specifically mitigate any significant adverse effects of the project on valued components (i.e., those measures that are essential to ensure that the project will not result in significant adverse environmental effects).	10 Summary of the Environmental Impact Statement	10 Environmental Impact Statement Summary and Conclusions	9 Summary of Environmental Effects Assessment Beaver Dam Mine Project Updated 2021 Environmental Impact Statement
8. FOLLOW-UP AND MONITORING PROGRAMS	A follow-up program is designed to verify the accuracy of the effects assessment and to determine the effectiveness of the measures implemented to mitigate the adverse effects of the project. The goal of a monitoring program is to ensure that proper measures and controls are in place in order to decrease the potential for environmental degradation during all phases of project development, and to provide clearly defined action plans and emergency response procedures to account for human and environmental health and safety.	9 Compliance and Effects Monitoring Program	9 Compliance and Effects Monitoring Program	10 Follow-up and Monitoring Programs Proposed

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Guidelines Section	Guidelines for the Preparation of an Environmental Impact Statement pursuant to the *Canadian Environmental Assessment Act,* 2012 Beaver Dam Mine Project EIS Guidelines Descriptions	Applicable Corresponding 2017 EIS Section	Applicable Corresponding Revised 2019 EIS Section	Applicable Corresponding Updated 2021 EIS Section
8.1. Follow-up program	The duration of the follow-up program shall be as long as required for the environment to regain its equilibrium and to evaluate the effectiveness of the mitigation measures. The EIS shall present a preliminary follow-up program in particular for areas where scientific uncertainty exists in the prediction of effects. This program shall include: - objectives of the follow-up program and the VCs targeted by the program; - list of elements requiring follow-up; - number of follow-up studies planned as well as their main characteristics (list of the parameters to be measured, planned implementation timetable, etc.); - intervention mechanism used in the event that an unexpected deterioration of the environment is observed; - mechanism to disseminate follow-up results among the concerned populations; - accessibility and sharing of data for the general population; - opportunity for the proponent to include the participation of Aboriginal groups and stakeholders on the affected territory, during the development and implementation of the program; and - involvement of local and regional organizations in the design, implementation and evaluation of the follow-up results as well as any updates, including a communication mechanism between these organizations and the proponent.	9.1 Environmental Management Plans	9.1 Environmental Management Plans	10.1 Environmental Follow-up Programs
8.2. Monitoring	The proponent will prepare an environmental monitoring program for all phases of the project. This program will help ensure that the project is implemented as proposed, that the mitigation or compensation measures proposed to minimize the project's environmental effects are effectively implemented, and that the conditions set at the time of the project's authorization and the requirements pertaining to the relevant laws and regulations are met. The monitoring program will also make it possible to check the proper operation of works, equipment and facilities. If necessary, the program will help reorient the work and possibly make improvements at the time of construction and implementation of the various elements of the project. Specifically, the environmental impact statement shall present an outline of the preliminary environmental monitoring program, including the: - identification of the interventions that pose risks to one or more of the components and the measures and means planned to protect the environment; - description of the characteristics of the monitoring program where foreseeable (e.g., location of interventions, planned protocols, list of measured parameters, analytical methods employed, schedule, human and financial resources required); - description of the proponent's intervention mechanisms in the event of the observation of noncompliance with the legal and environmental requirements or with the obligations imposed on contractors by the environmental provisions of their contracts; and - guidelines for preparing monitoring reports (number, content, frequency, format) that will be sent to the authorities concerned.	9.2 Environmental Monitoring Plans	9.2 Environmental Monitoring Plans	10.2 Environmental Monitoring Plans
9. NOVA SCOTIA ENVIRONMENT REQUIREMENTS	The Government of Nova Scotia requires a Class I Registration under the Nova Scotia Environmental Assessment Regulations made under the Environment Act. Pursuant to Schedule A of the Environmental Assessment Regulations a facility that extracts or processes a metallic or non-metallic mineral is a Class I Undertaking.	-	-	Beaver Dam Mine Project Updated 2021 Environmental Impact Statement
	The undertaking will not be officially registered until the proponent submits all applicable fees prescribed under the Nova Scotia Environment Act and all the required information. When preparing a registration document for a Class 1 undertaking, the proponent must ensure that certain information is included in the document. Under Section 9 (1A) of the Environmental Assessment Regulations, a registration document must include, as a minimum, the following information:	-	-	Beaver Dam Mine Project Updated 2021 Environmental Impact Statement
	- the name of the undertaking;	1.2 Proponent Information	1.2 Proponent Information	1.4 Proponent Information
	- the location of the undertaking;	2.1 Project Location	2.1 Project Location	1.2.2 Project Location 2.3 Project Location
	- the name, address, signature, and identification of the proponent including the name of the Chief Executive Officer and contact persons;	1.2 Proponent Information and signed letter	1.2 Proponent Information and signed letter	1.4 Proponent Information and signed letter
	- the nature of the undertaking;	1.1 Project Overview	1.1 Project Overview	1.2 Project Overview
	- the purpose and need of the undertaking;	1.4 Purpose of the Project	1.4 Purpose of the Project	1.3 Purpose of the Project
	- the proposed construction and operation schedules;	2.5 Project Schedule	2.5 Project Schedule	2.8 Project Schedule
	- a description of the undertaking;	2 Project Description	2 Project Description	2 Project Description

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	- environmental baseline information;	6 Environmental Effects Assessment	6.X.X Subsections for each VC titled "Baseline Conditions"	Subsections for each VC titled "Baseline Conditions" 6.1.3 Noise 6.2.4 Air 6.3.4 Light 6.4.4. Greenhouse Gases 6.5.4 Geology, Soil, and Sediment 6.6.4 Groundwater 6.7.4 Water Quantity 6.7.5 Water Quality 6.8.4 Wetlands 6.9.4 Fish and Fish Habitat 6.10.4 Habitat and Flora 6.11.4 Terrestrial Fauna 6.12.5 Avifauna 6.13.4 Species of Conservation Interest and Species at Risk 6.14.4 Mi'kmaq of Nova Scotia 6.15.4 Physical Cultural Heritage 6.16.4 Socio-economic Conditions
	- all steps taken or proposed by the proponent to identify and address the concerns of the public and Aboriginal people; - a list of all concerns regarding the undertaking expressed by the public and Aboriginal people;	3 Public Consultation and Engagement Program 4 Indigenous Peoples Consultation and Engagement Program 6.11 Indigenous Peoples	3 Public Consultation and Engagement Program 4 Indigenous Peoples Consultation and Engagement Program 6.14 Indigenous Peoples	3 Public Engagement Program 4 Indigenous Peoples Engagement 6.14 Mi'kmaq of Nova Scotia
	- a list of approvals which will be required and other forms of authorization; and	1.3 Regulatory Framework and Role of Government	1.3 Regulatory Framework and Role of Government	1.5 Regulatory Framework and Role of Government
	- the sources of any public funding.	1.1 Project Overview	1.1 Project Overview	1.2 Project Overview

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	The proponent also needs to address factors relevant to the Minister's decision. Under Section 12 of the Environmental Assessment Regulations, the Minister must consider the following information when making a decision: - the location of the proposed undertaking and the nature and sensitivity of the surrounding area; - the size, scope and complexity of the proposed undertaking; - concerns expressed by the public and Aboriginal people about the adverse effects or the environmental effects of the proposed undertaking; - steps taken by the proponent to address environmental concerns expressed by the public and Aboriginal people; - whether environmental baseline information submitted under subclause 9(1A)(b)(x) for the undertaking is sufficient for predicting adverse effects or environmental effects related to the undertaking; - potential and known adverse effects or environmental effects of the proposed undertaking, including identifying any effects on species at risk, species of conservation concern and their habitats; - project schedules where applicable; - planned or existing land use in the area of the undertaking; - other undertakings in the area; - whether compliance with licenses, certificates, permits, approvals or other documents of authorization required by law will mitigate the environmental effects; and - such other information as the Minister may require. For more information the proponent may refer to the Guide to Preparing an EA Registration Document for Mining Developments in Nova Scotia.	-	-	Beaver Dam Mine Project Updated 2021 Environmental Impact Statement