



## FINAL SCOPE LIST OF THE NIRB'S ASSESSMENT FOR THE WHALE TAIL PIT PROJECT PROPOSAL

The requirements of the Nunavut Impact Review Board's (NIRB or the Board) Review process are defined by the Nunavut Land Claims Agreement (NLCA) and the *Nunavut Planning and Project Assessment Act* (NuPPAA). As per paragraphs 99(1)(a) and 99(1)(b) of the NuPPAA, the first step in the Review process requires that the Board determine the scope of the project proposal, as well as the scope of the assessment.

The **scope of the project** shall be defined in relation to the project proposal received by the NIRB from the Proponent, and must include any work or activity identified in the project proposal, as well as any other work or activity that the Board considers sufficiently related to the project. The Board may also exclude any work or activity from the scope that it considers insufficiently related to the project. If the NIRB determines that an inclusion or exclusion to scope of the project should be made, the Board may only do so following consultation with the proponent and after considering any comments the Proponent may provide. Should the Board make an inclusion to the scope of the project, it must not proceed with its review until the Nunavut Planning Commission and responsible Ministers have had opportunity to again exercise their powers and perform their duties or functions in relation to the entire project.

The **scope of the assessment** determines the expectations of the process based on significant issues related to the proposed project, defining the components of the biophysical and/or socio-economic environment that could be impacted by the Project and for which there is public concern. This scope confirms which valued ecosystemic and socio-economic components must be considered to determine the potential for impacts associated with the project proposal through all planned project stages of the development, and which the Proponent will be required to examine within its Environmental Impact Statement.

The following Final Scope is issued by the NIRB based on Agnico Eagle Mines Ltd.'s (Agnico Eagle) proposed "Whale Tail Pit" project" as referred to the NIRB for screening by the Nunavut Planning Commission on June 17, 2016, Agnico Eagle's subsequent July 6, 2016 submission, direction provided by the responsible Ministers, comments from parties, and the requirements of the NLCA and the NuPPAA. Currently, the NIRB has not identified any activities for inclusion or exclusion; however, should the Proponent provide notice to the NIRB that it intends to change the scope of the project, the NIRB would consider any potential change against this document, and if it determines that an inclusion is required, would refer the proposal to the Nunavut Planning Commission as outlined above.

***1) Description of the project, the purpose of and the need for, the project***

The scope of the project proposal includes all physical works, activities, and/or undertakings, as scoped by the NIRB on June 17, 2016 for the Whale Tail Pit Project and encompasses the entire project life.

***a. Project Proposal Summary***

The Whale Tail Pit project (the Project) is a proposed open pit gold mine located at the Amaruq property, approximately 150 kilometres (km) north of the Hamlet of Baker Lake and approximately 50 km northwest of Meadowbank Gold Mine Project within the Kivalliq region. Agnico Eagle proposes development of the Whale Tail Pit project to continue employment and transition operations between the Meadowbank Project, which is at the end of its operations and the Meliadine Project, which is in early construction. Construction is proposed to take approximately one (1) year beginning in early 2018, operations expected to commence in late 2018 and continue for three (3) to four (4) years, followed by closure of the site over approximately seven (7) years, from 2019 to 2022 ending in post closure monitoring. Development of the pit is intended to allow for access to an estimated 8.3 million tonnes (Mt) of ore, and produce 46.7 Mt of waste rock and 5.8 Mt of overburden.

Ore would be trucked by road at a rate of 9,000 to 12,000 tonnes per day to the existing Meadowbank Gold Mine<sup>1</sup> for milling. Approximately 8.3 Mt of tailings produced from the milling process would be stored within the existing Meadowbank tailing storage facility (TSF), with approximately 5.3 Mt stored with the current footprint of the south cell TSF and approximately 3 Mt within the north cell TSF by constructing internal dike structures within the north cell.

Existing ancillary infrastructure used for the Whale Tail Pit Project would include Agnico Eagle's existing marine infrastructure which would support open-water shipping during the construction phase and annual resupply during operations, with the mine product, doré gold bars, to be flown to market directly from site.

It is anticipated that up to 500 employees would be required during the construction phase for the proposed project, including for dewatering, with an on-site labour requirement of up to 931 people on rotation during operations.

***b. Project Components***

***i. Meadowbank Mine Site***

*Activities and Facilities* would include use of existing infrastructure at the Meadowbank Mine site and ongoing use of resources as previously approved, specifically:

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<sup>1</sup> The NIRB has previously reviewed the related but distinct Meadowbank Gold Mine project (NIRB File No. 03MN107) in accordance with Part 5 of Article 12 of the Nunavut Land Claims Agreement (NLCA). The Meadowbank Mine project was allowed to proceed pursuant to the NIRB Project Certificate No. 004 which was issued December 30, 2006.

- the camp to accommodate personnel;
- airstrip and road between Baker Lake and the mine site;
- facilities including maintenance shops, administration buildings, power generators, mine dry (to include lockers, sinks, and changing rooms for personnel), reagent storage areas, fuel storage, landfill, waste and hazardous materials storage area, incinerator, sewage treatment plant, landfarm, ore storage, and surface water management (to include pollution and sediment control or supernatant ponds);
- operation of mill and batch plant;
- tailings conveyance, waste and hazardous wastes storage; and
- potable water sourced from Third Portage Lake, mill water sourced from the reclaim pond located near the mill.

#### ***ii. Baker Lake Docking Facility***

*Activities and Facilities* would include ongoing use of existing barge unloading facilities, laydown storage and marshalling area, 60-million litre fuel tank farm, and interconnecting roads.

#### ***iii. Whale Tail Pit***

**Note:** Whale Tail Pit project infrastructure is separate from, and in addition to, infrastructure previously screened and approved by the NIRB for Agnico Eagle's exploration program at the Amaruq site, NIRB File No. 11EN010).

*Activities and Facilities* would include the development of one open pit mine located within the Amaruq property, construction of temporary dikes in Whale Tail Lake and Mammoth Lake, the partial dewatering and fishout of Whale Tail Lake (north basin) with discharge of the water into the south basin of Whale Tail Lake or into Mammoth Lake. Mine infrastructure development, specifically camp and accommodations for 210 personnel, power plant, helipad, maintenance shop, bulk fuel storage facility (approximately 500,000 litre capacity), waste rock storage facility, ore stockpiling facility, crushing facility, laydown area. Construction of water management infrastructure and water treatment facilities to include: contact and fresh water collection ponds, diversion channels, retention dikes, dams and culverts, a water treatment plants, sewage treatment plant, discharge diffuser, and construction of the Whale Tail attenuation pond to contain discharge of treated sewage and site contact water before being discharged into Mammoth Lake. Potable water for the Whale Tail camp sourced from Nemo Lake and Whale Tail Lake (south basin) while non-contact water to be diverted from site through channels and dikes, with additional water raising the water level of Whale Tail Lake (south basin) to be discharge into Mammoth Lake through a southwest diversion channel.

#### ***iv. Mobilization and Shipping***

*Activities and Facilities* would include annual sealift delivery of fuel, equipment and supplies to the Baker Lake marshalling facility during the ice-free (open water) season, use of laydown areas at various project sites, shipping of doré gold bars off site via air, as well as extension and widening of previously approved Amaruq exploration road into a haul road 6.5 metres to 9.5 metres wide, closed to the public.

#### ***v. Abandonment, Decommissioning and Reclamation***

*Activities and Facilities* would include closure and remediation of the Whale Tail Pit infrastructure, removal of site infrastructure and flooding of the mined-out open pit, as well as closure and remediation of milling and tailings facilities at the Meadowbank site.

***1) Anticipated Effects of the Environment on the Project***

The scope of the assessment will include the potential for the Arctic environment to exert effects on the Project throughout the Project's life, including the following specific factors:

- a. Climate and meteorology including climate change
- b. Permafrost
- c. Geotechnical hazards including slope movement, differential or thaw settlement, frost heave, and ice scour
- d. Subsidence
- e. Flooding
- f. Unfavorable geological conditions

The scope of the assessment will include the potential for conditions in Nunavut's unique socio-economic environment, including the following specific factors:

- a. Limited availability of labour and capacity
- b. Limitations on physical infrastructure

***2) Anticipated ecosystemic and socio-economic impacts of the Project***

The assessment of the potential for ecosystemic and socio-economic impacts to result from the proposed project components and activities as outlined in the section above will be inclusive of the factors listed below. The assessment of impacts to each valued ecosystemic or socio-economic component shall take into account appropriate temporal and spatial boundaries and draw upon relevant information from scientific sources, Inuit Qaujimaningit<sup>2</sup>, traditional and community knowledge.

- a. Air quality including greenhouse gases
- b. Climate and meteorology
- c. Noise and vibration
- d. Terrestrial environment, including:
  - i) Terrestrial ecology
  - ii) Landforms and soils
  - iii) Permafrost and ground stability
- e. Geological features including discussion of geology and geochemistry
- f. Hydrological features and surface water quality
- g. Hydrogeology and groundwater
- h. Sediment quality
- i. Freshwater aquatic environment, including:
  - i) Aquatic ecology
  - ii) Aquatic biota including representative fish as defined in the *Fisheries Act*, aquatic macrophytes, benthic invertebrates and other aquatic organisms
  - iii) Habitat including fish habitat as defined in the *Fisheries Act*

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<sup>2</sup> Inuit Qaujimaningit encompasses Inuit traditional knowledge (and variations thereof) as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both contemporary and traditional).

- iv) Commercial, recreational, and Aboriginal fisheries as defined in the *Fisheries Act*
- j. Terrestrial vegetation
- k. Terrestrial wildlife and wildlife habitat, including:
  - i) Representative terrestrial mammals to include caribou, caribou habitat, migration and behavior, muskoxen, wolverine, grizzly bears, Polar Bears, wolves and less conspicuous species that may be maximally exposed to contaminants
  - ii) Wildlife migration routes and crossings
- l. Birds and bird habitat, including:
  - i) Raptors
  - ii) Migratory birds
  - iii) Seabirds
- m. Marine environment, including:
  - i) Marine ecology
  - ii) Marine water and sediment quality
  - iii) Marine biota including fish and benthic flora and fauna
  - iv) Marine habitat
  - v) Commercial, recreational, and Aboriginal fisheries as defined in the *Fisheries Act*
- n. Marine wildlife
- o. Terrestrial and marine Species at Risk, including
  - i) Species under consideration for listing on the *Species at Risk Act*
  - ii) Species designated “at risk” by the Committee on the Status of Endangered Wildlife in Canada
- p. Socio-economic factors, including:
  - i) Economic development opportunities
  - ii) Employment
  - iii) Education and training
  - iv) Contracting and business opportunities
  - v) Population demographics
  - vi) Benefits and revenues (tax, royalties, etc.)
- q. Traditional activity and knowledge and community knowledge including:
  - i) Land use
  - ii) Food security
  - iii) Language
  - iv) Cultural and commercial harvesting
- r. Non-traditional land use and resource use
- s. Heritage resources
  - i) Archaeology
  - ii) Paleontology
  - iii) Cultural
- t. Health and well being
  - i) Individual and community wellness
  - ii) Family and community cohesion
- u. Community infrastructure and public services
- v. Health and safety including employee and public safety

- w. Cumulative effects, giving specific consideration to the project in terms of existing, proposed, and reasonably foreseeable future mining and transportation infrastructure projects, with specific consideration of the Meadowbank Gold Mine
- x. Residual effects
- y. Transboundary effects

**3) *Measures proposed by the Proponent to avoid and mitigate adverse ecosystemic and socio-economic impacts, including contingency plans***

The scope of the assessment will include any contingency plans or risk management plans to avoid and mitigate adverse impacts caused by the proposed project components and activities. These plans must extend, where relevant, through all project phases. These plans shall take into account the appropriate temporal and spatial boundaries and are expected to draw upon relevant information from scientific sources, best practice as well as traditional and community knowledge and are to include, but not be limited to:

- a. Avoidance, Mitigation and Offsetting Measures specifically related to fisheries offsetting for the Whale Tail Project
- b. Emergency
- c. Spill response
- d. Hazardous materials management
- e. Accidents and malfunctions
- f. Regulatory requirements
- g. Monitoring and Adaptive Management
- h. Mitigation measures

**4) *Measures proposed by the Proponent to optimize the benefits of the Project, with specific consideration being given to expressed community and regional preferences in regards to benefits***

The scope of the assessment will include steps that the Proponent proposes to take to optimize benefits of the project, and should include, but not be limited to:

- a. Compensation and benefits
- b. Health benefits
- c. Human health and well-being
- d. Employment
- e. Education and training,
- f. Land use
- g. Contracting and business opportunities
- h. Any non-confidential details from an Inuit Impact and Benefit Agreement.

**5) *Measures proposed by the Proponent to compensate persons whose interests are adversely affected by the Project***

The scope of the assessment will include the steps that the Proponent proposes to take to compensate interests of parties adversely affected by the Project including all non-confidential details pertaining to any Inuit Impact and Benefit Agreement pursued in connection with the Project.

**6) Measures proposed by the Proponent to restore ecosystemic integrity after the permanent closure of the project**

The scope of the assessment will include any closure and reclamation plans to ensure that issues associated with the effective closure and reclamation of all Project components are considered at the earliest possible stage in the mine development process, thereby influencing mine design to take into account environmental issues related to mine closure and reclamation. These plans must extend, where relevant, through all project phases. These plans shall take into account the appropriate temporal and spatial boundaries and are expected to draw upon relevant information from scientific sources, best practice as well as traditional and community knowledge and are to include, but not be limited to:

- a. Care and Maintenance
- b. Mine Closure and Reclamation

**7) Any monitoring programs that the Proponent proposes to establish and to manage the ecosystemic and socio-economic interests potentially affected by the Project**

The scope of the assessment will include any programs that would be established to monitor the potential ecosystemic and socio-economic impacts caused by the proposed project components and activities.

**8) The interests in lands, waters and other resources which the Proponent has acquired or seeks to acquire**

The scope of the assessment will include consideration for any interests in lands, waters and other resources which the Proponent has secured or seeks to secure based on the proposed works and activities or undertakings that constitute the Whale Tail Pit project proposal.

<b>Organization</b>	<b>Requirement</b>
Nunavut Impact Review Board	Project Certificate
Nunavut Water Board	Type 'A' Water Licence
Kivalliq Inuit Association	Land Use Licences, leases, easements, right-of-ways, and Quarry Concession Permit(s)
Nunavut Tunngavik Inc.	Mineral Production Lease
Government of Nunavut – Community & Government Services	Right-of-Way approval
Government of Nunavut – Department of Culture and Heritage	Archaeology Permit(s) and Palaeontology Permit(s)
Government of Nunavut – Department of Environment	Wildlife Research Permit
Nunavut Research Institute	Socio-economic & Traditional Knowledge Research Licence, Scientific Research Licence
Indigenous and Northern Affairs Canada	Right-of-Way Approval
Environment Canada	Schedule 2 Amendment to Metal Mining Effluent Regulations

<b><i>Organization</i></b>	<b><i>Requirement</i></b>
Fisheries and Oceans Canada	Section 35 authorization under the <i>Fisheries Act</i>
Natural Resources Canada	Licence for a Factory and Magazine
Transport Canada	Navigable Waters Approval(s) and/or Exemption(s) and Oil Pollution Prevention/Emergency Plan as per the <i>Canada Shipping Act</i>
Workers Safety & Compensation Commission	Permit to Store Detonators, Explosives Use Permit

***9) Options for carrying out the Project that are technically and economically feasible and the anticipated ecosystemic and socio-economic impacts of those options***

The scope of the assessment will include consideration for alternative means of carrying out the Project that might be economically and technically feasible and the environmental effects of those alternative means. This assessment will include alternate timing and development options, as well as presenting the “no-go” or “no-build” alternative, and the “preferred” alternative. The “no-go” alternative is not only a potentially stand-alone option; it also serves as a baseline for comparison with other development alternatives that might reasonably be proposed in the circumstances.

***10) Any other relevant information or matters***

The scope of the assessment will include any other matters that the NIRB considers relevant, including:

- a. Technical innovations previously untested in the Arctic including new technology for mine design, operation, and tailings management
- b. Inuit Qaujimaningit, traditional and community knowledge
- c. Statement of consultation principles and practices
- d. Significant effects analysis
- e. Sustainability analysis
- f. Interactions with Valued Ecosystem Components and Valued Socio-Economic Components
- g. Discussion of similar resource development projects in other jurisdictions
- h. Planned future development and the associated level of uncertainty
- i. How the application incorporates facilities that are currently in place and which have been allowed to proceed pursuant to the NIRB Project Certificate No. 004.

The NIRB also notes encouragement received from the responsible Ministers to make use of existing documentation from past assessments as much as possible during the Review process for the Whale Tail Pit project proposal.