Summary of Issues - Troilus Mining Project

The Joint Assessment Committee (the Committee), composed of representatives of the Impact Assessment Agency of Canada (the Agency) and the Cree Nation Government, is responsible for jointly conducting the impact assessment of the Troilus Mining Project (the project). This document provides an overall summary of the issues raised by the public, federal authorities and Indigenous peoples during the public consultation period of May 30 to June 24, 2022, on the initial project description submitted by Troilus Gold (the proponent). The issues raised highlight the information needs to support the Agency's decision on whether an impact assessment is required under section 16 of the *Impact Assessment Act*. If an assessment is deemed necessary, these questions are also intended to guide the development of planning phase documents and to further the assessment. Details of the questions raised below are available in the original comments posted on the Canadian Impact Assessment Registry (reference number 83658). The categories of issues are presented in alphabetical order.

1. Accidents and Malfunctions

Need for information on the risks of accidents or failures that can contaminate air, water and traditional food

Need for information on how the emergency plan will notify and protect the public quickly and effectively

Need for information on potential environmental effects caused by accidents and malfunctions such as mine water retention pond spills, failure of water treatment systems, spills of deleterious substances or uncontrolled releases of contaminants

Need to clarify optimized spill prevention, preparation and response measures and systems to reduce the risk of spills of harmful substances or contaminants into the environment, particularly into nearby waterways and ecologically sensitive areas

Need for information on planned safety measures regarding community well-being

2. Air Quality

Need for information on site lithology that may contain crystalline silica, and associated inhalable quartz particles from dust emissions

Need to update current ambient air quality studies, including measurements of nitrogen dioxide, sulfur dioxide, dust (total suspended particulate matter), PM10, PM2.5, carbon monoxide, ozone, volatile organic compounds (VOCs), polycyclic organic compounds (PAHs), metals, and other substances that can be released into the atmosphere

Importance of modeling air quality dispersion to assess project effects

Importance of assessing the effects of the project on air quality during all phases of the project, including diesel engine exhaust emissions and dust emissions from the tailings facility

Need for additionnal information on mitigation measures to reduce air contaminant emissions from the project

3. Budget

Need for information on the budget dedicated to the maintenance of the multi-use roads used for the project (Troilus Road and the section of the Route du Nord used by the proponent)

Need for information on the estimated project budget for the construction and operation phases

4. Climate Change and Greenhouse Gas Emissions

Need for information on the following elements during all phases of the project:

- · the impact of the project on net greenhouse gas emissions and mitigation measures
- the impact of the project on carbon sinks
- national and international emission reduction efforts
- resilience to climate change
- the circumstances in which an upstream greenhouse gas assessment will be required
- the circumstances under which a plan to achieve zero net emissions by 2050 is required

The proponent will need to align with the information in the Strategic Assessment of Climate Change guidance document¹. The document Draft technical guide related to the strategic assessment of climate change² provides more information on this subject.

¹ Strategic Assessment of Climate Change: https://www.strategicassessmentclimatechange.ca/

² Draft technical guide related to the strategic assessment of climate change: www.canada.ca/en/environment-climate-change.html

5. Community Services, Regional Services

Importance of using the services of the municipal officers of the Eeyou Istchee James Bay Regional Government for all information related to the issuance of permits and certificates for the demolition, construction, renovation or transformation of the different buildings of the project

6. Cumulative Effects

Need for information on cumulative effects related to the project given its location on a former mine site, including but not limited to cumulative effects on surface and groundwater quality and the addition of contaminants to an environment already impacted by the intensive operation of two open pits

Need for information on the effects of the project on Indigenous communities related to cumulative effects due to significant oil, gas, forestry and mining development activities over the past decades

7. Current Use of Lands and Resources for Traditional Purposes by Indigenous Peoples

Need for information on the current use of lands and resources for traditional purposes by members of the Cree Nations in the area of project effects, and on the effects of the project on this use

Need for information on the effects of the No Name Creek diversion on the current use of lands and resources for traditional purposes

Need for information on the effects of workers during the construction phase on the use of lands and resources for traditional purposes

Need for information on the potential effects of environmental contaminant emissions (e.g., to air, water, and country food) on Indigenous peoples' land use

8. Energy

Need for clarification on the proportion of the project's energy needs using a hydroelectric source, including vehicles and equipment in the operational phase

9. Exercise of Indigenous and Treaty Rights

Need for information on the potential effects of the project on the rights of Indigenous peoples

Need to obtain free and informed consent of Indigenous peoples

Importance of consulting and engaging Indigenous peoples to ensure that their traditions, values and concerns for their lands are respected

Need for information on the potential effects of the project on access to and loss of traditional lands, on the ability to use the land, and on the ability of Indigenous peoples to practice their culture, including information on:

- wildlife movement and relocation
- reduced access to traditional foods, which could affect food security
- changes in socio-economic conditions due to reduced access to lands, resources, and sites of spiritual and cultural significance

Need to consider the potential effects of the project on Indigenous peoples over a long period of time (80-100 years), including, but not limited to, paying particular attention to the anticipated effects of climate change on food security and traditional activities of Indigenous peoples potentially affected by the project

10. Fish and their Habitat

Need for baseline information on the receiving aquatic environment in certain project areas, including but not limited to:

- upstream of the retention dike, including Upstream Lake
- downstream of the retention dike, including lakes and streams within the footprint of the Southwest Pit and the piles
- the receiving environments potentially impacted by the diversion option no. 2 of the No Name Creek presented by the proponent to the federal authorities on January 21, 2022
- water bodies and watercourses potentially impacted by the modifications to the mining road and access road

Need for information on potentially affected watercourses (permanent and intermittent) and water bodies (lakes and ponds) wich will have to be identified and inventoried, regardless of the source of the effect, whether direct or indirect (encroachment, modification of hydrological or hydrogeological regime, crossing, etc.) and regardless of the project alternatives selected

Importance of assessing the current contamination status of fish for mercury and metal contents

Need for information on effects on fish and fish habitat, regardless of project alternatives selected

Need for information on the alteration or destruction of fish habitat related to the modification of the hydrological regime caused by the water management method at the various project sites (mining area, surface infrastructure, tailings facility) during the construction and operation phases

Need for information on anticipated effects on fish and fish habitat of surface water management at various project sites and on Indigenous communities

Need for information on the anticipated effects on fish and fish habitat of the modification of the existing mine road and access road, particularly if stream crossings are modified or added

Need for information on the alteration of the free passage of fish caused by the establishment of stream crossings, the construction of new roads and the modification of existing crossing works

Need for information on the anticipated effects on fish and fish habitat of the new retention dike, near the new Southwest pit, upstream and downstream of the work

Need for information on the anticipated effects on fish and fish habitat of the new Southwest pit and its pile

Need for information on the anticipated effects on fish and fish habitat of the diversion of No Name Creek on upstream and downstream environments and in receiving environments (if diversion to another watercourse in the surrounding watershed occurs)

Need for information on the alteration or destruction of fish habitat through the modification of the hydrogeological regime, i.e. when groundwater would resurge in surface water of streams and water bodies, during the operation phase

Need for information on the effects of water table drawdown (lowering of the groundwater level) at existing and future pits on fish and fish habitat in water bodies around the mine site

Need for information on effects on fish and fish habitat related to the decrease in the base flow of the streams (e.g., lower water levels that could lead to an increase in temperatures) and groundwater quality that would resurge in surface waters of streams, and mitigation measures to minimize these effects

Need for information on the alteration or destruction of fish habitat by infrastructure encroachment on streams and water bodies during the construction phase

Need for information on alteration of the free passage of fish by water management affecting stream flows and levels

Need for information on the modification of the free passage of fish by the modification of the hydrogeological regime of the area having impacts on the groundwater supply of the streams and their level

11. Gender-based Analysis Plus

Need for disaggregated information³ to understand how the project differentially affects the health of women, children, and other groups historically excluded from impact assessments or groups vulnerable to the adverse effects of a mining project such as populations close to the project, young or elderly populations, or project employees, including from the perspective of cumulative effects, and need for information on mitigation measures for these effects

Need for a gender-based analysis plus⁴ in order to understand how the project might generate different health impacts for different groups of people

Importance of providing, when available, statistics on the number and employment rate, participation rate and unemployment rate for members of under-represented groups in the local labour market such as women, Indigenous people, youth, visible minorities, immigrants and disabled persons

Importance of demonstrating that the hiring process will be fair

Need for information on barriers to employment for members of groups under-represented in the labor market

Importance of developing measures to ensure equity (e.g., child care, training, language accommodations, work schedules, incentives for youth to train in science fields, and diversity in senior positions)

Need for a commitment from the proponent to ensure training, awareness and retention of Indigenous communities, women and other groups under-represented in the extractive industry

Need for information on the effects related to gender-based violence, the effects on specific intersectional groups among women (e.g., Indigenous people and young women) who are often disproportionately affected by these health and safety impacts, and mitigation measures for these effects

³ "The importance of disaggregated data": www.ccnsa-nccah.ca/docs/context/FS-ImportanceDisaggregatedData-EN.pdf

⁴ "What is Gender-based Analysis Plus": https://women-gender-equality.canada.ca/en/gender-based-analysis-plus/what-gender-based-analysis-plus.html

Need for cross-sectoral data to assess the relationship between gender and poverty, the division of labor, and the differential status of various populations with respect to relevant indicators (such as literacy and labor force participation rate)

12. Geology, Geochemistry and Geological Hazards

Need for information on rock geology, including structural geology, and importance of presenting this information on a map

Need to map surficial geology, deposit thickness, rock confinement, recharge areas and groundwater discharge areas

Need to provide geological and hydrostratigraphic sections (arrangement of unconsolidated deposit layers and rock) of the project area

Need for characterization of the physical and geochemical composition of mining materials

Need to consider the use of open pits in the evaluation of tailings management alternatives to manage potentially acid-generating waste rock and tailings or neutral drainage containing metals

13. Human Health and Well-Being

Need for information on the baseline conditions regarding access to health services for members of the Cree Nation of Mistissini and residents of the Nord-du-Québec region on the effects of the project on this access given the expected project workforce during construction and operation

Need for information on baseline conditions of emotional, mental and spiritual health of affected communities, including members of the Cree Nation of Mistissini

Need for a description of the communities in Eeyou Istchee and the James Bay territory

Importance of consulting with various jurisdictions, organizations and communities to validate whether sufficient and recent human health data are available to determine whether the potential health and safety effects of the project may result in adverse or positive impacts

Need for information on mitigation measures to support persons safety and security, including programs to engage employees as agent of change and codes of conduct

Need for information on the location of potential permanent, temporary and seasonal human receptors and their distance from project components that could affect them

Need for information on potential human health effects of air quality changes related to the following contaminants:

- nitrogen dioxide (NO₂)
- sulphur dioxide (SO₂)
- carbon monoxide (CO)
- volatile organic compounds (VOCs)
- polycyclic aromatic hydrocarbons (PAH)
- dust, including inhalable dust on and off site and fugitive dust [e.g., fine particulate matter (PM_{2.5}) and PM₁₀] associated with vehicle traffic, ore crushing, blasting, dewatering and wind erosion of accumulation areas, etc.
- metals
- diesel particulate matter⁵ (DPM)
- secondary pollutants (e.g. ground-level ozone)
- chemicals related to mining (e.g., emissions from ammonium nitrate normally used for blasting) and the on-site ore processing (e.g., cyanides)
- inhalable quartz particles (crystalline silica), if any
- diesel engine exhaust⁶
- any other contaminants emitted by the project that could have health effects

Need for information on the potential effects of air quality changes on human health for the following scenarios:

- health effects of the baseline status (the current state)
- · effects of project emissions only

⁵ Diesel PM generally consists of fine particulate matter (PM2.5) and ultrafine particulate matter, which are released directly or formed secondarily via gaseous precursors in exhaust and evaporative emissions. Diesel exhaust contain known or suspected carcinogens, and the very small size of diesel exhaust particles contributes to their efficient delivery to the deep lung. (Health Canada, 2016, p.3,7: https://publications.gc.ca/collections/collection_2016/sc-hc/H129-60-2016-eng.pdf)

⁶ View this infographic for more information: https://publications.gc.ca/collections/collection_2018/sc-hc/H129-88-2018-eng.pdf

- future effects (baseline + project effects)
- cumulative effects (baseline + project effects + effects of other past or potential projects + effects related to climate change, if required). It is recommended that the highest standards of the Canadian Ambient Air Quality Standards⁷ be used in this assessment.

Need to analyze the feasibility of electrifying some mobile equipment and assess the potential effects of this electrification on human health (e.g., mitigating air pollution, including that related to climate change⁸)

Need for information on potential human health effects related to changes in drinking water quality

Need for information on potential effects of water quality changes (groundwater and surface water) on human health related to the following contaminants:

- aluminum
- cadmium
- copper
- zinc
- arsenic
- lead
- cyanides⁹
- any other contaminant that may have health effects

Importance of assessing the potential human health effects of acid mine drainage

Importance of assessing the impacts of the project on human health related to changes in the quality of traditional food and other traditional resources, including but not limited to Indigenous communities

Importance of assessing the noise impacts of the project on human health, including potential effects on sleep

Need for information on the effects of accidents and malfunctions on human health

Need for information on potential effects on community health and safety of Indigenous girls and women¹⁰ related to the presence of outside workers (fly-in/fly-out) and tourism in the project area

Need for a health determinants approach to assess potential effects on health, socio-economic and social conditions

Need for information on the effects of nuisances related to increased road traffic (noise, dust, etc.)

Need for information on the potential health effects of environmental contaminant emissions (e.g., air, water, and traditional food) on the practice of traditional activities of Indigenous peoples

Need for information on the effects of climate change on the human health valued components, including their baseline state (e.g., consider the fact that initial air quality would be somewhat worse than it actually is, given that forest fires may be more frequent)

Need for information on the number of employees who will be housed in the workers' camp

14. Natural and Cultural Spiritual Heritage of Indigenous Peoples

Need for information on the effects of tree removal on species of cultural value to indigenous peoples

Need for information on the effects of the project on sacred sites and other sensitive cultural and heritage areas, including but not limited to Indigenous communities

Need for information on the effects of the No Name Creek diversion on natural heritage

15. Navigation

Need for information on the effects of the project on navigation on the affected waterways

16. Public and Indigenous Peoples Engagement

Importance of meaningful engagement that includes all community members, regardless of distance from the project, access to high-speed network, type of disability, caregiver role, education, culture, gender, etc.

Need to document the engagement activities undertaken with the public and Indigenous Peoples, including the distribution of information to Indigenous Peoples (including communities that did not wish to participate, withdrew and/or were unable to participate in the engagement activities)

⁷ https://ccme.ca/en/air-quality-report

⁸ "The health impacts of climate change on First Nations, Inuit, and Métis peoples are far-reaching, with disproportionate impacts on their communities, including food and water security and safety, air quality, infrastructure, personal safety, mental health and wellness, livelihoods, culture, and identity." (Health Canada, 2022, p.11:) https://changingclimate.ca/site/assets/uploads/sites/5/2022/02/CCHA-REPORT-EN.pdf).

⁹ The general process flow diagram indicates that a cyanidation unit is planned (Golder, p.14: https://www.ceaa-acee.gc.ca/050/documents/p83658/143932E.pdf). Although adverse effects from cyanide in mine wastewater are unlikely in humans, its presence in water is still a concern given its high toxicity.

^{10 &}quot;Final report of the National Inquiry into Missing and Murdered Indigenous Women and Girls. 2019" https://publications.gc.ca/site/eng/9.867037/publication.html

Need to include a participant registry in the stakeholder engagement plan that includes participant data

Need to include, in the future mobilization plan, the mobilization of the general population and organizations focusing on the issues of various groups of the population (for example, the Comité condition féminine Baie-James¹¹ and the Cree Women of Eeyou Istchee Association¹²) in order to present the broad outlines of the project and, above all, to gather comments and concerns about the project

Need for information on the integration of community concerns regarding environmental and socio-economic impacts (e.g. housing needs, impacts on tourism activities, distribution of economic benefits, social cohesion, racism, etc.)

17. Purpose of the Project

Importance of clarifying and further detailing the purpose of the project

Need for clarification on technology applications (including electrification technologies) requiring 8% of the gold produced in Canada, the utility of the remaining 92% and the proportion of gold used in Canada compared to that used in Quebec

Need for information on the feasibility of the project under alternative scenarios and forecasts of gold and copper prices and capital and operating costs, in addition to the proponent's economic projections

18. Reference State

Importance of clearly defining and explaining the choice of data used to establish the project baseline conditions, considering as baseline options: 1) before the old mine, and 2) after the old mine

19. Restoration of the Old Mine Site

Need a description of ongoing restoration work, including results of completed and remaining work and associated issues

Need for clarification on the objectives and the effectiveness of the progressive restoration since 2011 on the metal content in surface and groundwater

20. Restoration of the Proposed Project Site

Need a description of how project-affected forests will be restored (including approach, activities, and estimated timeline)

Importance of management of contaminated mine site water after the project, during the restoration phase

Need to model the effects of proposed restoration measures to estimate the levels of the various contaminants in the effluents and in the natural environment

Need for information on the effects of the project on Indigenous communities related to the restoration of the site after its exploitation

21. Social and Economic Conditions

Importance of promoting and contributing to the acquisition of local goods, services and jobs for the entire region Importance of participating in the diversification of the economy to meet the needs of the mining industry

Need information on the historical contribution and direct, indirect and induced (positive and negative) effects of the mining industry on the local, regional, provincial and national economy in particular:

- estimation of gross domestic product, employment and wages
- assessing the presence and economic contribution of complementary and competing industries
- · current and projected economic benefits
- effects on government revenues and costs
- long-term effects on economic conditions in the post-closure phase of the project
- effects during the construction, operation, closure and reclamation phases of the project
- cumulative effects on economic conditions

Importance that the project's labour pool come from the municipalities of Chapais and Chibougamau and from the Cree Nation of Mistissini, and that it be demonstrated that the proponent will do what is necessary to recruit locally in order to have significant economic benefits for the region

Importance of engaging and collaborating with the Indigenous Skills and Employment Training Program network and the Cree Nation Government to ensure that local Indigenous communities are prepared to meet labour market demands

Need for clarification on the year of the percentages used for mining jobs and need clarification if it is mining jobs related to the operation only and not all mining jobs

¹¹ www.ccfbj.com/a-propos

¹² www.cweia.ca/

Need for clarification regarding the analysis of the community of Mistissini and the cities of Chibougamau and Chapais, specifically to compare statistics, such as labour market, employment, income and education, to the Quebec and Canadian averages, to confirm that the population is 15 years of age and older for data related to the level of education, income recipients, labour force and workers, as well as the need to replace "occupation sector" with "broad occupational category"

Need for information on estimated proportion (%) of jobs generated by occupational category¹³

Need for information on the estimated proportion (%) of jobs created for the Nord-du-Québec region compared to Quebec as a whole

Need for information on the number of full-time, part-time, permanent, temporary and contract jobs created, as well as the number of indirect jobs created

Need for information on the types of skills and knowledge required to access the jobs created and the number of people residing in the region with these skills

Need for an estimate of the demographic composition of the construction workforce in the construction industry

Need for a description of the broader social norms and social power structures, such as legal frameworks, that may impact the ability of women, men and various groups of people to benefit equally from opportunities in the mining industry

Need for information on specific initiatives for hiring, recruiting and retaining a diverse and regional workforce that includes members of groups under-represented in the labour market, particularly Indigenous women

Need for information on the salaries, working conditions and social benefits offered to the project's employees as well as a comparison to the Quebec and Canadian averages, including for the same trades and professions

Need for information on measures for those who will lose their jobs during layoffs or mine closure such as severance, early retirement, pension, social benefits, training subsidies and transfer offers

Need for information about the human resources and related policies that will be implemented to ensure a diverse and inclusive workplace, including a description of the measures planned to help ensure diversity and inclusion (e.g., training for managers, anti-harassment policies, identification of the needs of groups under-represented and the availability of necessary supports and resources, as well as the availability of a safe space for workers to voice their concerns)

Need for information on the effects of the project on social well-being and economic prosperity in Indigenous communities

22. Surface Water, Drinking Water and Groundwater

Need for information on current groundwater quality in the project area, including copper, zinc and cyanide levels Need for information on the assumptions that the project could result in exceedances of the Canadian Council of Ministers of the Environment aquatic life protection criteria for metals, specifically aluminum, cadmium, copper and zinc

Need for information on all physico-chemical parameters and major ions of the groundwater that will be analyzed and need to present the interpretation of the results using graphs (e.g. Piper or Schoeller diagram)

Need for information on the results of water discharge analyses from past operations related to the former mine, need to present these results using time charts by component and displaying applicable regulatory criteria (e.g., *Metal and Diamond Mining Effluent Regulations* criteria), and need to present a discussion of these results, issues and solutions

Need for information on the lowering of the groundwater due to the ongoing or planned dewatering of pits J4 and J87 and its extent

Need for information on the sources of treated and untreated water currently consumed by Indigenous peoples and water bodies used for recreational or ceremonial purposes and their locations, as well as the effects of the project on them

Need for information on the risk to citizens related to drinking water quality in the Nord-du-Québec region, problematic drinking water sources, their contaminants and their impact on human health

Need to indicate on a map:

- the location of No Name Creek
- groundwater observation wells planned as part of the groundwater monitoring and characterization program

¹³ Potential source: <u>www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410033502&request_locale=en</u>

- · watershed and sub-watershed outlets
- gauging stations (measuring stations) planned for groundwater levels
- the location of the pumped water discharge
- water quality sampling stations along No Name Creek provided in Appendix B of the Initial Project Description¹⁴

Importance of using surface water and groundwater sampling stations further away than those listed in Appendix B of the Initial Project Description to assess baseline conditions in the natural environment

Need for information on the potential effects of the project on the water quality of the well used by the family of the tallyman of trapline M-34 from the Cree Nation of Mistissini

Importance of assessing the potential for acid mine drainage on surface and groundwater quality and providing information on mitigation measures and monitoring program related to this drainage potential

Importance of characterizing ore, overburden, open pit walls, tailings and mine waste rock to assess their potential for metal leaching, acid generation and metal-neutral drainage and their effects on surface and groundwater quality

Importance of providing a management plan for overburden, pit walls, tailings and mine waste rock, information on mitigation measures (e.g., separation of potentially acid generating and/or neutral draining waste rock containing metals, in-pit management, determination of cover thickness at site closure, etc.), as well as a follow-up program related to leaching potential

Need for information on the potential effects of water withdrawal from local streams and lowering of the water table due to mine water pumping on surface water levels and flows, as well as the mitigation measures and monitoring program for these effects

Need for information on the water management planned for the project, including the design of collection ponds and ditches for the waste rock and ore piles, effluent treatment, mitigation measures and monitoring program

Need for information on surface and groundwater quality monitoring upstream and downstream of the mine effluent(s) discharge point and the need to start this monitoring as soon as possible (before the project begins)

Need for a groundwater and surface water level monitoring plan, including the location of monitoring stations and the water quality of these waters, specifying the parameters monitored

Need to model the effects of the proposed treatment measures in order to estimate the various contaminant content in the effluent and the natural environment

Need for information on water management alternatives, including diversion of No Name Creek

Need a detailed description of all potential effects of the project on groundwater and surface water, including but not limited to

- effects on the Rupert River watershed and the Lake Boisfort sub-watershed
- effects caused by the diversion of Sans Nom Creek and the lowering of the water table
- · effects on the hydrology and water quality of surrounding watersheds
- a description of mitigation measures

Need to present a piezometric map (measured or predicted depth to groundwater surface) from before, during and after pit dewatering, including location of data used and method of interpolation (estimation) with assumptions made

Need to provide a description of the base flows of watercourses in the watersheds affected by the project

Need to provide a discussion of the conceptual and numerical model required to make predictions and analyze potential impacts of the project on hydrogeology, as well as details on model selection, components to be modeled and assumptions made

Need to provide a discussion of hydraulic conductivity calculations (test type and methods), distribution of values by hydrostratigraphic unit (unconsolidated deposit layer and rock) and spatial location of tests

23. Terrestrial Wildlife, Birds and Species at Risk

Need for information on the potential effects of the project for each phase of the project on terrestrial wildlife, including migratory birds and species at risk listed on Schedule 1 of the *Species at Risk Act* and their habitat, habitat use and critical habitat in the project area and in Indigenous communities

Need for information on the effects of changes in geomorphic processes (e.g., sedimentation processes and alteration of water quality) on wildlife related to project activities

¹⁴ The Initial Project Description for the Troilus Mine Project prepared by Troilus Gold is available at this link: www.ceaa-acee.gc.ca/050/documents/p83658/143932E.pdf

Need for information on the effects of new road infrastructure and increased in traffic volume on wildlife, especially during the operational phase

Need for information on the amount, duration, frequency, timing and effects of sensory disturbances (light, noise, vibration, presence of workers, etc.) on wildlife, migratory birds and species at risk

Need for information on effects on wildlife related to harmful substances discharged into receiving environments during all phases of the project

Need for information on potential effects of the project on migratory birds related to toxic substances in wastewater generated by project activities

Need for information on the effects of wetland destruction and alteration on migratory birds and species at risk Need for information on the potential presence of the wolverine in the project area and the area of potential effects of the project

Need for information on potential impacts of the project on caribou habitat and vegetation, including

- · loss of habitat area
- · degradation of habitat quality
- changes in predator movements due to habitat modifications
- mitigation measures

24. Timelines, Consultation Methods and Evaluation Process

Need for information on assessment and licensing of explosives storage and manufacturing

25. Wetlands and Forests

Need for information on the effects of the project on wetlands and their ecological functions during all phases of the project

Need for information on the effects of the project on existing hydrological regimes essential to maintaining wetlands

Need for information on the methods used to remove trees and the potential impact of this removal on biodiversity Need to describe land use changes caused by the mining project (e.g., landscape transformation, loss of carbon sinks and habitat), including forest lands, potential impacts of these changes, if appropriate, and mitigation measures