

Environmental Protection Operations Directorate
Prairie & Northern Region
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ECCC File: 6100 000 195/001
NIRB File: 24EN005



March 15, 2024

via email at: info@nirb.ca

Francis Emingak
Technical Advisor I
Nunavut Impact Review Board
29 Mitik Street
P.O. Box 1360
Cambridge Bay, NU X0B 0C0

Dear Francis Emingak:

RE: 24EN005 – Bronzite Exploration Corp. – Somerset Trough Project – Screening Request

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Impact Review Board (NIRB) regarding the above-mentioned screening request.

ECCC provides expert information and knowledge to Project assessments on subjects within the department's mandate, including climate change, air quality, water quality, biodiversity, environmental preparedness and emergencies. This work includes reviewing Proponent characterization of environmental effects and proposed mitigation measures. We provide advice to decision-makers regarding a Proponent's characterization of environmental effects, the efficacy of their proposed mitigation activities, and may suggest additional mitigation measures. Any comments received from ECCC in this context does not relieve the Proponent of its obligations to respect all applicable federal legislation.

The following comments are provided:

1. Topic: Creswell Bay Important Bird Area, Creswell Bay Marine and Terrestrial Key Habitat

Reference(s)

- Environmental Management Plan
- Wildlife Management Plan



Comment

ECCC notes there are several key habitat areas for waterfowl and migratory birds which overlap with the Project area. These key habitat areas have not been addressed by the Proponent in the Project Description documents, nor the Environmental and Wildlife Management Plans.

1) **Creswell Bay Important Bird Area (IBA) (NU062)** contains important habitat features for migratory birds and shorebirds, including 20km of lowlands and low tides with extensive mud flats.

Global populations of shorebirds use the lowlands around Creswell Bay, including White-rumped Sandpiper, Red Phalarope, Black-bellied Plover and Sanderling. During late summer, migratory breeding shorebirds gather to feed on pelagic amphipods in the Creswell River and surrounding mudflats, and tens of thousands of geese stage along the coast of the Creswell Bay after the breeding season.

2) **Creswell Marine and Terrestrial Key Habitats** overlap with the Project area. Waterfowl, including Eiders and Long-tailed Ducks, use the Creswell Bay Marine Key Habitat during spring break up when leads and polynyas appear, and during fall for waterfowl moult.

Breeding shorebirds, and geese that moult in late summer, use, and depend on, the Creswell Terrestrial Key Habitat.

ECCC Recommendation(s)

ECCC recommends the Proponent provide, for review, detailed mitigation and monitoring measures for migratory birds and avian species at risk for activities occurring in these areas of increased sensitivity.

2. Topic: Species at Risk

Reference(s)

- Wildlife Management Plan

Comment

Exploratory and survey studies may create increased sensitivity to Species at Risk (SAR) in the area. Peary Caribou Critical Habitat overlaps the Project site. However, the Proponent does not indicate any Critical Habitat for this species in the Wildlife Management Plan, nor in the Environmental Protection Plan.

Species at risk are assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) or added to Schedule 1 of the *Species at Risk Act* (SARA) on a regular basis. It is important for Proponents to ensure they are aware of what species are present in the Project area and take appropriate actions to ensure compliance with the *Species at Risk Act* (SARA).

The killing, harming or harassing of listed species as well as the damage and destruction of their residences is prohibited under SARA. In the territories, the prohibitions apply automatically to:

- Threatened, Endangered and Extirpated species listed on Schedule 1 of SARA on lands under the authority of the federal Minister of Environment.
- Migratory Birds (as defined under the *Migratory Birds Convention Act* [MBCA]) everywhere they are found.

These prohibitions can apply elsewhere if there is an order put in place.

The destruction of critical habitat of species listed under Schedule 1 of SARA is prohibited on all lands identified within the critical habitat protection order for the species.

ECCC Recommendation(s)

As species are assessed and listed on a regular basis, ECCC recommends the Proponent:

- a. Consult the [Species at Risk registry](#) to obtain the most current information for their operations.
- b. Consult the Government of Nunavut to identify appropriate mitigation and/or monitoring measures to avoid and lessen Project effects to species under their management responsibility. For more information on Species at Risk in Nunavut, please refer to the booklet '[Species at Risk in Nunavut \(2021 edition\)](#)'.

3. Topic: Species at Risk – SAR Missing and/or Effects and Measures Missing

Reference(s)

- Wildlife Management Plan

Comment

Section 79 of SARA requires the assessor and decision body to ensure that where a Project is likely to affect a listed species or its critical habitat, all adverse effects of the Project are identified and considered in the assessment of the Project. Appropriate measures must be taken to avoid or lessen those effects and include monitoring. Measures should be consistent with applicable recovery documents.

Section 79 applies to all listed species on Schedule 1 of SARA including those listed as Special Concern, Threatened, Endangered and Extirpated. As a matter of best practice, COSEWIC-assessed species should be assessed similarly to those listed under SARA.

The Proponent has not identified all Species at Risk that are likely to be present in the Project area and has not included all adverse effects of the Project on Species at Risk.

Table 1 in Appendix I contains a list of species that are likely to be encountered in the Project area that have been assessed as at risk by COSEWIC or listed on Schedule 1 of SARA.

ECCC Recommendation(s)

ECCC recommends the Proponent:

- a) Identify adverse effects of the Project on the Species at Risk likely to be affected and their Critical Habitat;
- b) Ensure that measures are taken to avoid or lessen those adverse effects and monitor them to inform adaptive management.

If the Proponent encounters Species at Risk, the primary mitigation measure should be avoidance. ECCC recommends:

- c) Mitigation and monitoring measures be consistent with applicable species at risk Recovery Strategies and Action Plans or Management Plans.
- d) At a minimum, monitoring should include recording timing and location of observed species at risk, their behavior when encountered, and actions taken by the Proponent to avoid disturbance to the species, its habitat, and/or its residence.
- e) The Proponent submit monitoring reports to the appropriate regulators and organizations with management responsibility for that species.

4. Topic: Project Activities (Clearing) Within Migratory Bird Habitat During Nesting Season

Reference(s)

- Environmental Management Plan
- Wildlife Management Plan

Comment

The Project occurs during the nesting season for migratory birds which extends from late May to mid-August for this region (Nesting Zone N10). The Proponent indicates that habitat alteration and/or disturbance may be required during the general nesting period as part of Project activities. The *Migratory Birds Regulations* (MBR) prohibit the disturbance or destruction of migratory birds and their nests or eggs.

During this period, clearing or brushing of vegetation or activities that may disturb or alter nesting habitat may increase the risk of destruction of the nests and eggs of migratory birds. It is important to note that nesting periods may vary from year to year due to climatic conditions and some species may nest outside the dates provided if conditions are favourable.

If there are occupied migratory bird nests where work is planned, activities that could disturb or destroy nests should be avoided, adapted, rescheduled or relocated. The best way to avoid

disturbing or destroying active nests is to avoid conducting harmful activities during the breeding season.

Determining the presence of nesting migratory birds may help reduce risks, but active nest searches are not recommended as the ability to detect nests is very low while the risk of disturbing and/or damaging active nests is high.

As detailed in ECCC's [Guidelines to Avoid Harm to Migratory Birds](#), nest surveys to determine nest occupancy may only be appropriate when all these conditions are met:

- Conducted by skilled and experienced observers;
- Using appropriate methodology;
- Only a few nesting spots or a small community of migratory birds is expected; and
- The activities will take place in simple habitats.

Proponents are reminded that migratory bird species may nest on the ground, in ground cavities, in grasses, shrubs, cliffs, trees, tree cavities and other sites and that nest sites are often cryptic or camouflaged, making them difficult to locate.

ECCC Recommendation(s)

ECCC recommends the Proponent avoid habitat disturbance during the general nesting period, which extends from late May to mid-August for this region.

The Proponent must consider options such as avoiding, adapting, rescheduling or relocating activities. If a nest containing a migratory bird or egg is discovered/disturbed, the Proponent must:

- a) Halt all disruptive activities in the nesting area until nesting is complete and the young have fledged; and
- b) Establish a protective buffer zone around the nests. The buffer zone must be determined by a setback distance appropriate for the species, the intensity of the disturbance, and the surrounding habitat until the young have naturally and permanently left the vicinity of the nest. Proponents are encouraged to follow the guidance on ECCC's [Guidelines to Avoid Harm to Migratory Birds](#).

Proponents should not conduct potentially destructive or disruptive activities at key locations or during key periods to avoid negative impacts to migratory birds. In this regard, the Proponent should take into account ECCC's [Guidelines to Avoid Harm to Migratory Birds](#) and visit [Fact Sheet Nest Protection Under the Migratory Birds Regulations, 2022](#) and [Frequently Asked Question, Migratory Birds Regulations, 2022](#) for more information on the amended Migratory Bird Regulations and updates to nest protections.

For further questions or technical information, please contact ECCC (cwsnorth-scfncord@ec.gc.ca).

5. Topic: Storage of Attractants

Reference(s)

- Wildlife Management Plan

Comment

The Proponent indicates that petroleum-based chemicals may be kept on site.

Food, domestic wastes and petroleum-based chemicals (e.g. greases, gasoline, glycol-based antifreeze) can attract predators of migratory birds such as foxes, ravens, gulls and bears. Although these animals may initially be attracted to the novel food sources, they often will also eat eggs and young birds in the area. These predators can have significant negative effects on the local bird populations.

ECCC Recommendation(s)

ECCC recommends the Proponent make food, domestic wastes and petroleum-based chemicals (e.g. greases, gasoline, glycol-based antifreeze) inaccessible to wildlife at all times.

6. Topic: Aircraft

Reference(s)

- Environmental Protection Plan
- Wildlife Management Plan

Comment

The Proponent indicates there may be a potential for low-level flights during the summer and fall in areas of high bird concentrations, as an aircraft will be used to access the Project area.

The Proponent has not indicated whether flight plans will be developed. Flight plans would allow for the avoidance of passage through these Important Bird Areas for the purpose of minimizing disturbance on molting, nesting, and staging bird species.

ECCC notes that there are several features and habitats around the Project site which are important to migratory birds and may be impacted by flight traffic during the summer and fall. These include the following:

- Major wetland complexes
- Important Bird Area NU062 – Creswell Bay. A site that contains global congregations and concentrations of shorebird and waterfowl species.
- Terrestrial and Marine Key Habitat Sites – Creswell Bay. Important sites for breeding and migrating shorebirds and waterfowl species.

ECCC Recommendation(s)

In order to reduce aircraft disturbance to migratory birds and subject to pilot discretion regarding safety, ECCC recommends:

- a) Avoiding known concentrations of birds (e.g. Creswell Bay Marine and Terrestrial Key Habitat, Important Bird Area, moulting areas) by a lateral distance of at least 1.5 kilometres.
- b) Avoiding areas used by flocks of coastal migrating waterfowl by 3 kilometres.
- c) Avoiding excessive hovering or circling over areas of high bird concentrations.
- d) If avoidance is not possible, maintaining a minimum flight altitude of 1,100 metres (3,500 feet) over these areas.
- e) Informing pilots of these recommendations and of areas of high bird concentrations.

The Proponent should ensure these measures are incorporated into the wildlife management plan.

7. Topic: Oil Spills

Reference(s)

- Notice of Screening
- Revised NIRB Application
- Wildlife Management Plan

Comment

There is a potential for large release of pollutants into marine environments and/or freshwater lakes and rivers where birds may congregate.

Migratory birds are particularly vulnerable to pollution incidents (e.g. oil spills, etc.) in their feeding areas. Proponents should determine what steps would be taken to mitigate the impacts of pollution incidents on migratory birds and their important habitats.

Having this information outlined and available not only benefits wildlife, but also gives clear direction to staff and contractors on what to do during a pollution incident if wildlife is nearby.

ECCC Recommendation(s)

ECCC recommends the Proponent incorporate into existing emergency response plans:

- a) Steps to protect wildlife (including migratory birds) in the event of a pollution incident and keep wildlife out of contaminated areas;
- b) Equipment and resources available for incident response; and
- c) Measures to take if wildlife does come in contact with the spill.

8. Topic: Worst-Case and Alternative Accident Scenarios

Reference(s)

- Spill Contingency Plan

Comment

It is noted that worst-case and alternative accidental scenarios that could be caused by the Project are not included. For example, it does not include how the breach of a drum containing fuel, fire resulting from flammable commodities stored on-site or a plane crash would be handled and remediated.

ECCC Recommendation(s)

ECCC recommends that the Proponent considers worst-case and alternative accident scenarios that could be caused by the Project and prepare contingency plans that reflect the various potential accidents and malfunctions scenarios. ECCC recommends that the Proponent assumes worst-case accident and malfunction scenarios are not only possible, but are likely to occur during the lifespan of the Project; contingency plans and response capabilities should be developed accordingly.

9. Topic: Safety Data Sheet (SDS)

Reference(s)

- Spill Contingency Plan

Comment

In Table 1 Potential Spill Materials Inventory of the Spill Contingency Plan various hazardous materials that will be required for the Project are identified. The Proponent did not attach the safety data sheets (SDS) of the hazardous materials that could be involved in a spill or malfunction. An SDS can provide valuable information about the nature and behavior of a substance. Hazardous substance SDS' are generally found in the appendix of the spill contingency plan. However, the Spill Contingency Plan does not contain the SDS'.

ECCC Recommendation(s)

ECCC recommends that the Proponent include the SDS of the hazardous substances identified in Table 1 of the Spill Contingency Plan as an Appendix, and that SDS should be readily available to site workers. This will help ensure accurate information about the hazardous materials is available and factored into the planning of the Project.

10. Topic: Spill response training

Reference(s)

- Spill Contingency Plan

Comment

In sections 1 and 5 of the Spill Contingency Plan, the Proponent indicates that "All personnel working on site must be familiar with the Spill Contingency Plan and understand how to respond to a spill. Staff and contractors must adhere to the Spill Contingency Plan to help minimize wildlife attractants and environmental risks created by the Project." However, it remains unclear to ECCC if the Proponent intends to implement an appropriate training regimen for staff and contractors. A comprehensive training program that includes adequate response practices can serve as a valuable tool in mitigating the environmental impact of accidents and malfunctions.

ECCC Recommendation(s)

ECCC encourages the Proponent to include a description of any environmental emergency response training regimes for their response personnel within their Spill Contingency Plan. This should include a commitment to train and conduct exercises.

If you need more information, please contact Leah Dirk at (306) 514-2363 or Leah.Dirk@ec.gc.ca.

Sincerely,



Leah Dirk
Acting- Environmental Assessment Officer

Attachment(s):

cc: Eva Walker, Acting Head, Environmental Assessment North (NT and NU)

Enclosure: Appendix I: Species at Risk

Appendix I: Species at Risk

The Table below lists species that may be encountered in the Project area that have been designated as at risk by COSEWIC as well as their current listing on Schedule 1 of SARA (and designation if different from that of COSEWIC). This list may not include all species identified as at risk by the Government of Nunavut (GN). As species are assessed and listed on a regular basis, consult the [Species at Risk registry](https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html)¹ to maintain the most current information.

Table 1. Terrestrial Species at Risk potentially interacting with Project components.

Terrestrial Species at Risk¹	Scientific Name	COSEWIC Designation	SARA Status	Primary Management Responsibility²	Available Recovery Documents
Buff-breasted Sandpiper	<i>Tryngites subruficollis</i>	Special Concern (2012)	Special Concern (2017)	Environment and Climate Change Canada	Management Plan
Caribou (Peary)	<i>Rangifer tarandus pearyi</i>	Threatened (2015)	Threatened (2023)	Government of Nunavut	Recovery Strategy Critical Habitat Description
Ivory Gull	<i>Pagophila eburnea</i>	Endangered (2006)	Endangered (2009)	Environment and Climate Change Canada	Recovery Strategy Critical Habitat Description
Polar Bear	<i>Ursus maritimus</i>	Special Concern (2018)	Special Concern (2011)	Government of Nunavut	
Red Knot (islandica subspecies)	<i>Calidris canutus islandica</i>	Not at Risk (2020)	Special Concern (2012)	Environment and Climate Change Canada	Recovery Strategy Management Plan
Red Knot (rufa subspecies)	<i>Calidris canutus rufa</i>	Endangered (2007)	Endangered (2012)	Environment and Climate Change Canada	Recovery Strategy Critical Habitat Description
Red-necked Phalarope	<i>Phalaropus lobatus</i>	Special Concern (2014)	Special Concern (2019)	Environment and Climate Change Canada	Management Plan*
Wolverine	<i>Gulo gulo</i>	Special Concern (2014)	Special Concern (2018)	Government of Nunavut	

¹ <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>

Notes:

¹ Fisheries and Oceans Canada (DFO) has responsibility for aquatic species (not listed here).

² ECCC has a national role in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the MBCA. Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of GN. Populations that exist in National Parks are managed under the authority of the Parks Canada Agency (PCA).

* Denotes recovery documents that are in the process of being finalized but where a draft/proposed version is available for use