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Prairie & Northern Region  
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ECCC File: 6100 000 194/001  
NIRB File: 22EN057



January 6, 2023

via email at: [info@nirb.ca](mailto:info@nirb.ca)

Robby Qammaniq  
Technical Advisor II  
Nunavut Impact Review Board  
29 Mitik Street  
P.O. Box 1360  
Cambridge, NU X0B 0C0

Dear Robby Qammaniq:

**RE: 22EN057 – Viridis Mining and Minerals – South Kitikmeot Gold Project – NIRB Screening Application**

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

ECCC is providing technical, science-based information and knowledge based on our mandate pursuant to the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*. These comments are intended to inform the assessment of this project's potential effects in the receiving environment and on valued ecosystem components. 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. Incinerator Emissions**

Reference(s)

- Waste Management Plan, November 2022

Comment

The Proponent may incinerate combustible non-mineral waste. The burning of waste products releases numerous contaminants to the air (e.g. polycyclic aromatic hydrocarbons, heavy metals, chlorinated organics such as dioxins and furans, etc.), which can result in harmful impacts to human and wildlife health. Therefore, burning should only be considered as a waste disposal method after all other alternatives have been explored.



ECCC has developed a Technical Document for Batch Waste Incineration which provides guidance on the incineration of combustibles and burnable debris, for incinerators with capacities ranging from 50 to 3000 kg of waste per batch, with the intent of achieving the Canada-Wide Standards for Dioxins and Furans, as well as Mercury. The document provides information on appropriate incineration technologies, best management and operational practices, monitoring and reporting, and can be found at the following web link: <https://ec.gc.ca/gdd-mw/default.asp?lang=En&n=F53EDE13-1>

#### ECCC Recommendation(s)

ECCC recommends that the Proponent follow the guidelines in the Technical Document for Batch Waste Incineration, where appropriate. This will ensure diligent operation and maintenance of the incineration device and ensures appropriate training is provided to the personnel operating and maintaining the incinerator.

## **2. Species at Risk**

#### Reference(s)

- Environment and Heritage Resources Protection Plan, November 2022

#### Comment

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 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.

### 3. Species at Risk Missing and/or Effects and Measures Missing

#### Reference(s)

- Environment and Heritage Resources Protection Plan, November 2022

#### 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.

Table 1 below contains a list of additional 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.

Table 1: Additional terrestrial Species at Risk potentially interacting with project components

Terrestrial Species at Risk <sup>1</sup>	Scientific Name	COSEWIC Designation	SARA Status	Primary Management Responsibility <sup>2</sup>	Available Recovery Documents
Peregrine Falcon (anatum/tundrius complex)	<i>Falco peregrinus anatum/tundrius</i>	Not at Risk (2017)	Special Concern (2012)	Government of Nunavut	Management Plan
Short-eared Owl	<i>Asio flammeus</i>	Threatened (2021)	Special Concern (2012)	Government of Nunavut	Management Plan
Transverse Lady Beetle	<i>Coccinella transversoguttata</i>	Special Concern (2016)	Special Concern (2021)	Government of Nunavut	
Notes: <sup>1</sup> Fisheries and Oceans Canada (DFO) has responsibility for aquatic species (not listed here). <sup>2</sup> ECCC has a national role to play 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).					

The Project may have adverse effects on listed species including: direct habitat loss, impacts due to noise, dust or other sensory disturbances, wildlife injury or mortality, exposure to toxic or hazardous substances and wildlife attraction.

#### 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.

#### **4. Project Activities within Migratory Bird Habitat**

##### Reference(s)

- Environment and Heritage Resources Protection Plan, November 2022

##### Comment

The *Migratory Birds Regulations* (MBR) prohibit the disturbance or destruction of migratory birds and their nests or eggs.

Migratory birds, their nests and their eggs can be inadvertently harmed, killed, disturbed or destroyed because of many activities including, but not limited to, clearing of trees and other vegetation, draining or flooding land, or using fishing gear. Harming of individual birds, nests or eggs, can have long-term consequences for migratory bird populations in Canada, especially through the cumulative effects of many different incidences.

#### ECCC Recommendation(s)

ECCC recommends the Proponent carry out all phases of the project in a manner that reduces risk to migratory birds and to avoid harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests and eggs.

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 visit [Fact Sheet Nest Protection Under the Migratory Birds Regulations, 2022](#) and [Frequently Asked Questions, Migratory Birds Regulations, 2022](#) for more information on the amended MBR and updates to nest protections.

## 5. Storage of Attractants

### Reference(s)

- Environment and Heritage Resources Protection Plan, November 2022
- Spill Response Plan, November 2022

### Comment

The Proponent indicates that food, domestic waste and/or 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.

If you need more information, please contact Melissa Pinto at (867) 445-5384 or [Melissa.Pinto@ec.gc.ca](mailto:Melissa.Pinto@ec.gc.ca).

Sincerely,

*[original signed by]*

Melissa Pinto  
Senior Environmental Assessment Officer

cc: Jody Small, Acting Head, Environmental Assessment North (NT and NU)