Ministry of the Environment Conservation and Parks

Marathon Palladium Project Environmental Assessment Public Hearing

Presenters: Brianne Brothers, Management Biologist, North Bay
Lindsay McColm, Northern Species at Risk Specialist, Thunder Bay

Topic: Species at Risk

Date: March 23, 2022

Ontario

Presentation Outline

- Background
  - *Endangered Species Act,* 2007

- Ministry of Environment, Conservation, and Parks undertook an assessment of Project effects on species at risk, including the consideration of proposed mitigating measures and recommendations for the following species:
  - Caribou (Boreal population) in the Lake Superior Coast Range
  - Species at risk bats
    - Northern Myotis, Little Brown Myotis, Tri-colored Bat
  - Eastern whip-poor-will
  - Lake sturgeon (Great Lakes - Upper St. Lawrence populations)

Presenters:

Lindsay McColm: caribou, lake sturgeon

Brianne Brothers: SAR bats, eastern whip-poor-will

Endangered Species Act, 2007

MECP is responsible for the administration of the *Endangered Species Act*, 2007 (ESA).

The purposes of the ESA are to:

- Identify species at risk based on the best available scientific information, including community and Traditional Ecological knowledge;
- Protect species at risk and their habitats, and promote the recovery of species at risk; and
- Promote stewardship activities to assist in protection and recovery of species at risk.

MECP provides advice in relation to proposed project effects on species at risk listed on the Species at Risk in Ontario (SARO) list (Ontario Regulation 230/08) under the ESA.

When a species is listed as endangered or threatened, the prohibitions set out in the ESA apply against killing, harming, harassing etc. the species, and damaging or destroying habitat.

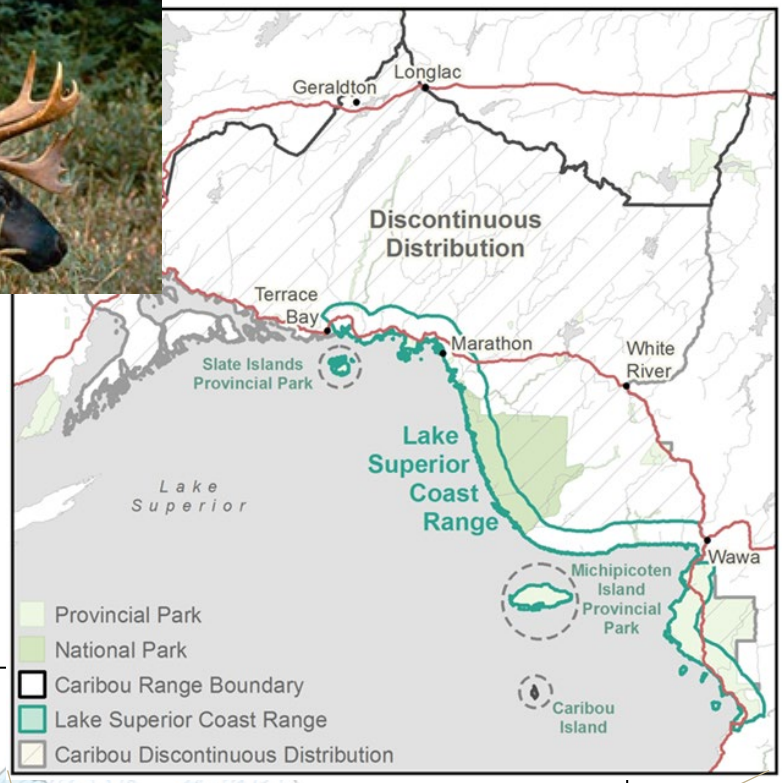
Activities that negatively impact the species at risk or its habitat are likely to contravene the prohibitions set out in the ESA unless authorized under the Act (e.g. by a permit or agreement) or exempted (e.g. by a conditional exemption set out in the regulations made under the ESA).

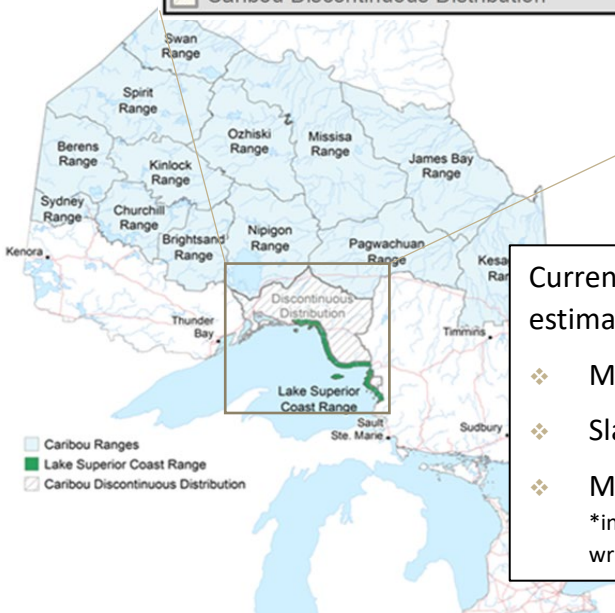
CARIBOU (Boreal population)

Rangifer tarandus

Status: Threatened

Photo credit:
Gerry Racey





Current caribou population estimates:

- Michipicoten Island: 0
- Slate Islands: 29-31
- Mainland: ~ 50 (13-227*)
  *incorrectly noted as 2,276 in written submission

Background

- The Lake Superior Coast Range (Range) is the most southerly of fourteen caribou ranges in Ontario.
- Is separated from the northern ranges by the Discontinuous Distribution, an area with significant habitat disturbance that restricts movement.
- Includes a 10km-wide mainland strip from Terrace Bay area to south of Lake Superior Provincial Park, and all islands offshore to 28km, including Michipicoten Island and the Slate Islands Provincial Parks.
- Unique due to small size, linear shape, coastal location and large off-shore islands.
- Supports three sub-populations that act independently except when there is an ice bridge.
- Off-shore islands are generally predator free (except Michipicoten currently).
- The Range and discontinuous distribution were continuously populated until the late 1800s.
- Over time, human activities (habitat disturbance, hunting) have led to the local extinction of caribou in the Discontinuous Distribution and population declines in the Range.

Ontario

GenPGM Assessment of Project Impacts – MECP Review

GenPGM predicts <u>minor</u> residual impacts to (EIS Addendum 2021)

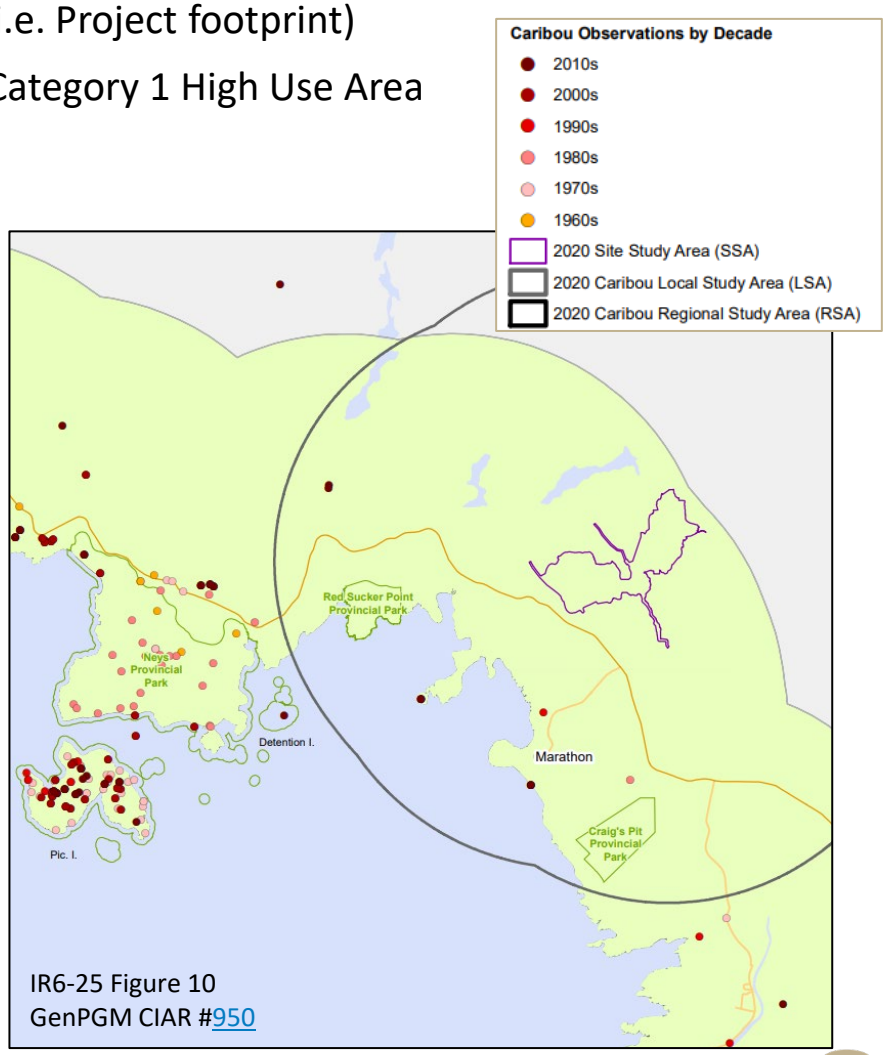
- Connectivity around the Site Study Area (SSA) (i.e. Project footprint)
- Non-significant sensory impacts to the nearby Category 1 High Use Area
- Loss of habitat in SSA

GenPGM determination of significance of Project impacts (EIS Addendum 2021)

- "As with the original EIS (2012), the residual environmental effect on caribou is predicted to be <u>not significant</u> "

MECP review focused on :

- Determination of significant adverse effects and range level impacts to connectivity, habitat, Category 1 High Use Area, sensory
- Proposed on-site and off-site mitigation



IR6-25 Figure 10
GenPGM CIAR #950

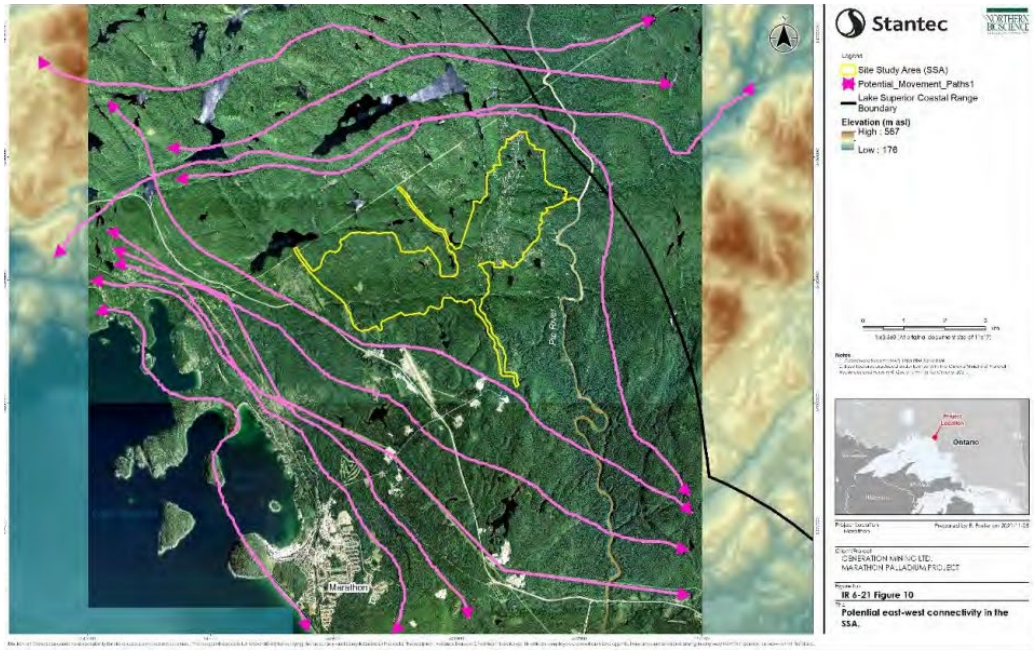
Ontario

Impacts to connectivity: Within LSCR and between ranges to north

- GenPGM predicts some impedance to connectivity within the LSCR during the construction and life of mine (17 years), easing upon post-closure.

MECP opinion of GenPGM's connectivity assessment:

- the semi-quantitative methods employed assess only landscape structure, with no attempt to quantitatively model caribou movement through the landscape;
- linear features are not sufficiently addressed; and
- the choice of thematic categories and their relative cost weights is not sufficiently explained or supported by evidence.
- Given these points, potential impacts of the Project on range habitat connectivity cannot be reliably discerned with the provided information.



MECP Conclusions

- Significant likelihood that the Project footprint will be a physical barrier to caribou movement and connectivity within the LSCR over the medium-to-long-term; anticipating adverse impacts to east-west connectivity.
- Sensory disturbance from the Project may impact as much as a 10 km radius around the Project footprint, influencing caribou movement within the range, in the shorter term during the construction and operation of the mine (17 years).
- Project will likely have less of an impact on north-south movements of caribou between the LSCR and ranges further north; not anticipating adverse impacts to N-S connectivity.

IR6-21 Figure 10 GenPGM CIAR #950

Habitat assessment: Removal of habitat and added disturbance

- GenPGM predicts no significant impact to clearing SSA (i.e. Project footprint) and removing habitat

MECP opinion of GenPGM's habitat assessment:

- Concepts of 'refuge habitat' and 'winter habitat' are used out of their intended context, which is to inform forest management planning under Ontario's Crown Forest Sustainability Act (1994)
- Cumulative disturbance models used to estimate range-level disturbance are not considered directly applicable to the LSCR
- Too much emphasis on impacts to fine-scale habitat components within the Project footprint; missed focus of whole project impacts on LSCR.

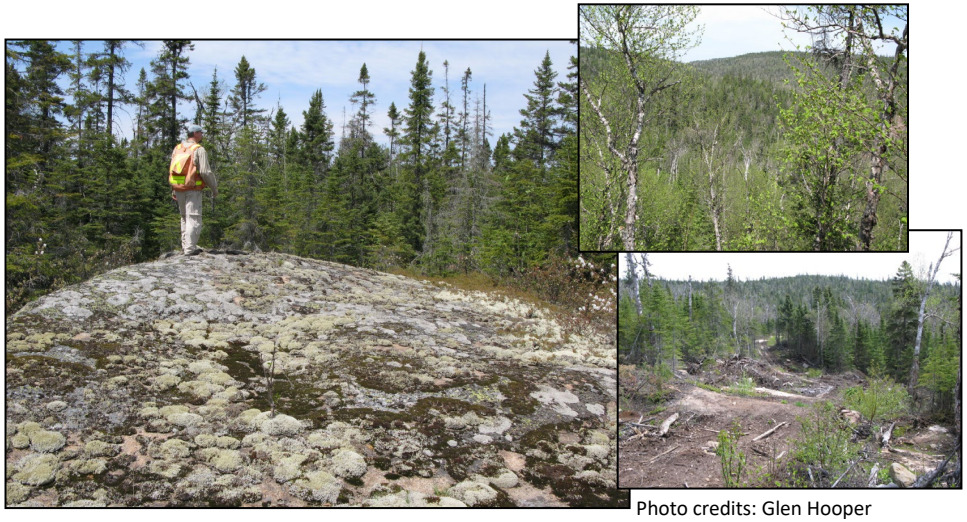


Photo credits: Glen Hooper

MECP Conclusions

- MECP remains focused on the impacts of the whole Project footprint on available habitat for caribou within the LSCR – not fine-scale habitat components like winter and refuge habitat or disturbed areas within the Project footprint specifically.
- Under the ESA, the whole Project footprint currently contributes to supporting caribou in the LSCR.
- Anticipating adverse impacts due to damage and destruction of all available habitat within the Project footprint.

Sensory Impacts to Category 1 High Use Area

- GenPGM's predicts no significant sensory impacts on the Category 1 High Use Area (combined Nursery Use Area and Winter Use Area)

MECP opinion of GenPGM's assessment & rationale:

- GenPGM's noise assessment was not specific to caribou or the effects in the nearby HUA; analysis considered not relevant to caribou
- GenPGM's rationale that few caribou are present in HUA to be affected is not accepted by MECP

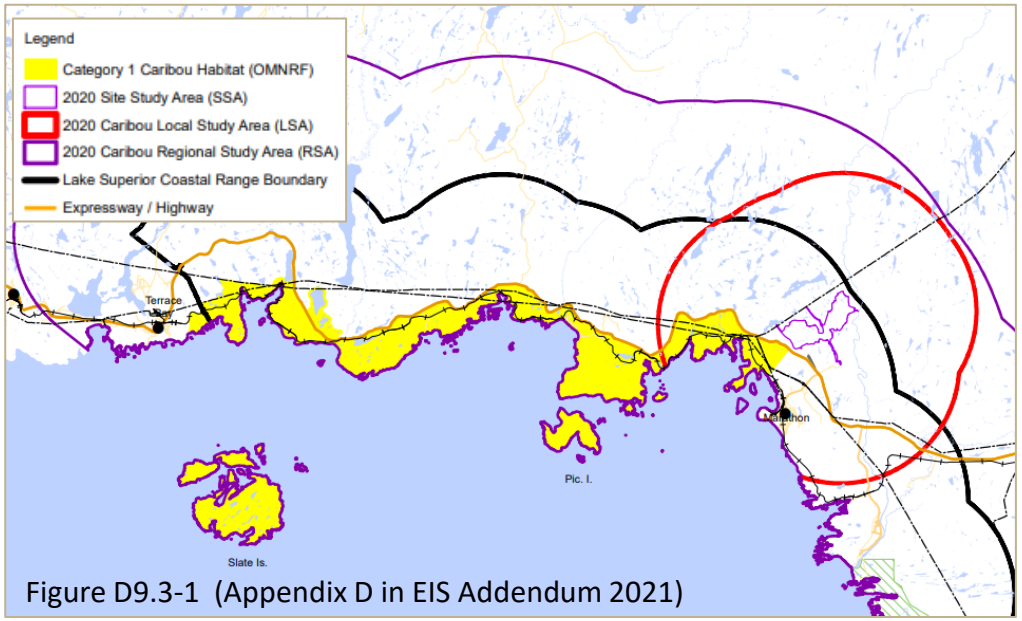


Figure D9.3-1 (Appendix D in EIS Addendum 2021)

MECP Conclusions

- As per Ontario's General Habitat Description (GHD) for caribou, Category 1 High Use Areas (yellow on map) have the highest value to caribou during sensitive time periods and therefore the lowest tolerance to alteration and sensory disturbance.
- As per the GHD, development activities that result in sensory disturbance within 10 km of Category 1 HUAs are not compatible due to an increased likelihood of potentially displacing caribou during sensitive time periods
- Caribou are known to use this area year-round
- Anticipates adverse impacts to females and calves in the Category 1 High Use Area during the nursery period of May 1 to Sept 15 and to all caribou using the HUA during the winter use period of December 1 to March 31

On-Site Mitigation (closure)

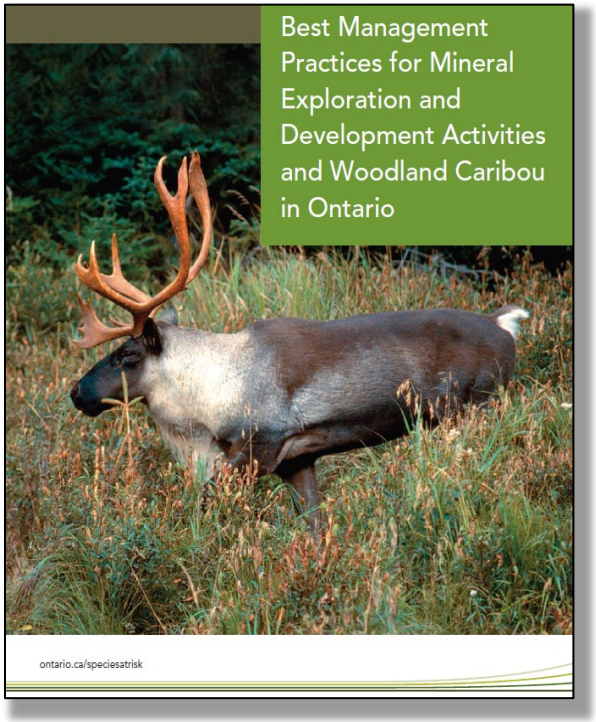
- GenPGM describes the mine's post-closure landscape as having "partial site rehabilitation" in the context of caribou habitat (EIS Addendum, 2021)

MECP opinion of GenPGM's on-site mitigation:

- It remains unclear what proportion of the Project footprint will be restored to caribou habitat post-mine closure

MECP Conclusions

- Recommend that as much of the Project footprint as possible should be restored to suitable caribou habitat to help mitigate impacts of the Project.
- Follow Ontario's Best Management Practices mineral exploration and development activities and Caribou in Ontario, which provides guidance for site restoration



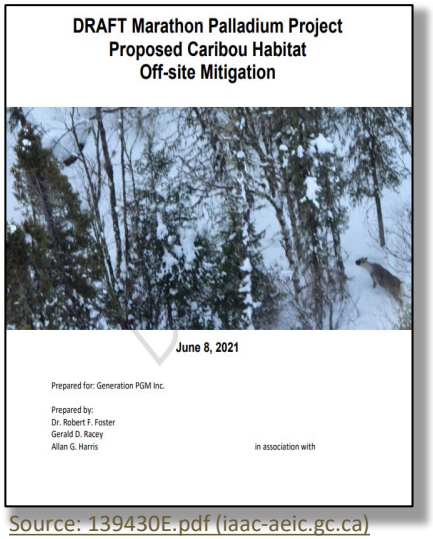
Source: https://www.ontario.ca/page/best-management-practices-mineral-exploration-and-development-activities-and-woodland-caribou

Off-site mitigation

- GenPGM has proposed conducting off-site mitigation to minimize residual effects of the Project on caribou and their habitat in the LSCR

MECP opinion of GenPGM's off-site mitigation:

- GenPGM proposed restoring 115 ha of habitat in four off-site locations in the LSCR and Discontinuous Distribution. Project footprint will remove 1,116 ha of habitat. Off-site mitigation represents 10% of expected loss.
- Largely premised on the proposal developed in 2012, with minimal updates to reflect landscape change/resource management decisions in intervening time.


DRAFT Marathon Palladium Project
Proposed Caribou Habitat
Off-site Mitigation

June 8, 2021

Prepared for: Generation PGM Inc.

Prepared by:
Dr. Robert F. Foster
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Allan G. Harris

in association with

Source: 139430E.pdf (iaac-aeic.gc.ca)

MECP Conclusions

- Minor positive aspects
  - In favour of potential short-term benefits of these off-site mitigative actions, so long as the restoration activities serve to reduce predator-prey interactions and human use in the vicinity of the restored features.
  - Short-term benefits to off-site restoration actions should include reducing predator mobility along linear corridors, line-of-sight breaks within corridors for predators and limited or no access by humans into restored areas, particularly using motorized vehicles including ATVs and snowmobiles.
- Overall insufficient
- Proposed off-site mitigation plan is currently insufficient to avoid significant adverse effects to caribou and their habitat in the LSCR
- Proposed off-site locations (e.g. Vein Lake Road network) may not be meaningful in the context of connectivity and population persistence
- Concerns with primary method in determining whether the off-site mitigation locations first proposed in the 2012, remain viable in today's context

MECP Overall Conclusions

- The Project was assessed relative to Ontario's *Endangered Species Act*, 2007 (ESA),the supporting policy direction of the Caribou Conservation Plan (CCP), and in consideration of the proposed mitigation.
- The Project, as described, is likely to have significant adverse effects on caribou and their habitat in the Lake Superior Coast Range.
- As currently proposed, the Project is inconsistent with Ontario's ESA policy direction for caribou in the LSCR regarding population persistence and security, and improvement of habitat connectivity.
- Anticipating adverse impacts to females and calves in the nearby Category 1 High Use Area during the nursery period of May 1 to Sept 15 and to all caribou using the HUA during the winter use period of December 1 to March 31;
- Anticipating adverse impacts due to damage and destruction of available habitat within the Project footprint;
- Should the Project move forward, MECP is of the opinion that an authorization under the ESA will likely be required.

Recommendations

- GenPGM should address remaining concerns of significant adverse effects from the Project to caribou and caribou habitat in the Lake Superior Coast Range.
- Should the Project move forward, an authorization under the ESA is likely required.
- Follow direction in the Best Management Practices mineral exploration and development activities and Caribou in Ontario for mitigative actions on-site.

SPECIES AT RISK BATS

Myotis septentrionalis, Myotis lucifugus, Perimyotis subflavus

Status: Endangered


Source: https://www.ontario.ca/page/little-brown-myotis-northern-myotis-and-tri-colored-bat-recovery-strategy

Background

- There are four species of bats on the SARO list, these include Northern Myotis (*Myotis septentrionalis*), Little Brown Myotis (*Myotis lucifugus*), Tri-colored Bat (*Perimyotis subflavus*) and Eastern Small-footed Myotis (*Myotis leibii*). All species at risk (SAR) bats in Ontario are currently classified as 'endangered', meaning that they are facing imminent extinction or extirpation.
- GenPGM documented use of the Project study area by two of these species, Little Brown Myotis and Northern Myotis, in 2020.

GenPGM Assessment

- GenPGMs conclusions indicate that there are no hibernacula features for SAR bats in the Project study area.
- Habitat for SAR bats is not limiting across the Regional Study Area and therefore impacts to habitat as a result of the Project are not expected.
- Direct impacts to individual SAR bats can be avoided using timing windows that avoid tree removals from May 1 – August 31, however, GenPGM has indicated that limited tree clearing may occur during this period.

MECP Review

- MECP is of the opinion that based on the project documentation and information provided by GenPGM, it is unlikely that hibernacula features exist on the Project site.
- MECP is of the opinion that based on the project documentation and information provided by GenPGM, similar habitat for SAR bats is abundant and widespread in the Regional Study Area.

MECP Recommendations

- Tri-colored Bat was not considered by GenPGM as potentially occupying the Project study area. Recent literature suggests that Tri-colored Bat may be found in more northern latitudes than previously thought and therefore should be considered as potentially occupying the SSA.
- To avoid direct impacts to SAR bat individuals, MECP recommends that all tree removals occur outside the active bat timing window from May 1 – August 31, in any given year.
- Avoiding tree removals within this timing window will minimize impacts to maternity roosting, day roosting, and foraging SAR bats.
- If tree removals cannot avoid the timing window from May 1- August 31, MECP is of the opinion that an authorization under the *Endangered Species Act*, 2007 will likely be required.

EASTERN WHIP-POOR-WILL

Antrostomus vociferus

Status: Threatened

Source: https://www.ontario.ca/page/eastern-whip-poor-will-recovery-strategy

Background

- Eastern whip-poor-will is listed on the SARO list as 'threatened' and are afforded protections under the ESA.
- The main threats to eastern whip-poor-will include reduced prey availability, agricultural expansion and intensification, urban expansion, energy development and mineral extraction.

GenPGM Assessment

- GenPGM has identified 936 ha of potentially suitable eastern whip-poor-will habitat in the Site Study Area. However, GenPGM has indicated that no eastern whip-poor-will were detected during targeted surveys and acoustic monitoring.

MECP Review

- Based on MECP review of the project documentation and information that has been provided by GenPGM, the conclusions that GenPGM has made that there will be no significant impacts on eastern whip-poor-will, appear reasonable and valid.

LAKE STURGEON

Acipenser fulvescens

Status: Endangered (Great Lakes - Upper St. Lawrence populations)


Photo credit: Todd Stailey

Background

- Lake sturgeon is listed on the SARO list as 'endangered' and are afforded protections under the ESA.
- The main threats to lake sturgeon include harvesting, dams and other river barriers, habitat loss, and poor water quality.
- Concerns existed surrounding the need to stabilize the bank of the Pic River adjacent to Camp 19 access road or mitigate erosion issues along the road.

GenPGM Assessment

- Given the close proximity of the Project to the Pic River, GenPGM assessed impacts of the Project on lake sturgeon.
- Indicated that at present they do not anticipate impacts to lake sturgeon.

MECP Review

- Based on MECP review of the project documentation and information that has been provided by GenPGM, the conclusions that GenPGM has made that there will be no significant impacts on lake sturgeon, appear reasonable and valid.

Thank You

Please refer to our written submission for further details.

Ontario