

Caribou Habitat Mitigation Planning for the Marathon Palladium Project

Meeting Notes

Meeting Date:	Wednesday, December 1, 2021	Location:	Virtual via ZOOM
Meeting Time:	3:00PM – 4:00PM (ET)		

Attendees	<p>Generation PGM (GenPGM) Cathryn Moffett Jeremy Dart</p> <p>Northern Bioscience Robert Foster</p> <p>Parks Canada (PC) Daniel Pouliot Eri Hiraga Lucy Patterson</p> <p>Environment and Climate Change Canada (ECCC) Allison Kroeze Mathieu LeBlond Vikash Narine</p>	<p>Ministry of the Environment, Conservation and Parks (MECP) Brienne Brothers Carolyn Lee Kristina Hubert Lindsay McColm</p> <p>Ministry of Northern Development Mines, Natural Resources and Forestry (NDMNRF) Kristen Ellam Mike Sanders Raymond Tyhuis</p>
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PURPOSE

- Initial discussion between MECP Species at Risk Branch and Generation PGM on caribou mitigation strategy and to seek provincial input on mitigation measures

DOCUMENTS

- Baseline Terrestrial Studies and Caribou Mitigation Planning PowerPoint Presentation

SUMMARY OF THE MEETING

<i>Introductions</i>
A round of introductions were made. Parks Canada and Environment and Climate Change Canada attended the meeting as observers.
<i>Caribou Mitigation Planning Presentation</i>
<p>Northern Bioscience gave a presentation summarizing baseline studies and mitigation planning for caribou (<i>please refer to the presentation attached for details</i>):</p> <ul style="list-style-type: none"> Few Lake Superior Coast Range caribou remain on the mainland No resident caribou in Pukaskwa National Park Caribou population has changed since 2013 on Slate Islands and Michipicoten Island

- No known calving within project footprint as most of habitat is disturbed
- Some potentially suitable refuge and wintering habitat within the project footprint; however, no apparent current use
- Mine development could have impacts for caribou passage now and into the future
- Focus of the mitigation plan in 2013 was to look for opportunities to improve caribou habitat in coast range or discontinuous range to make up for on-site disturbance after mine closure and remediation
- Mitigation measures included:
 - Restoring conifer (refuge and wintering) habitat
 - Removing linear disturbance to discourage access by wolves and ATV use (e.g. road decommissioning)
- Propose monitoring of road decommissioning with trail cameras
- Closure plan details are being developed with goals of restoring site to a conifer-dominated forest
- Discussions on caribou recovery with First Nations are ongoing

Discussion

Provincial Direction

- GenPGM inquired if the management approach for the Lake Superior Coast Range and Discontinuous Distribution has been finalized
- MECP advised that there is no new status on the provincial recovery strategy and encouraged GenPGM to proceed with mitigation planning. The provincial policy direction (Woodland Caribou Conservation Plan) to improve population security, connections and persistence remain the same

Permitting

- GenPGM inquired if an overall benefit permit under the *Endangered Species Act* will be required for the project
- MECP advises that an overall benefit permit for caribou is likely. The only overall benefit permit for issued to date in Ontario is for the East-West Tie Transmission Project and that a mine project would be assessed differently from a transmission line project
- MECP inquired if GenPGM intends to pursue an overall benefit permit with the measures proposed in the current offsite Woodland Caribou Offsite Mitigation Plan
- GenPGM is seeking input on appropriate mitigation measures to determine if there will be significant adverse effects on caribou as part of the environmental assessment, in addition to measures that it can carry forward to the permitting stage. It was noted that the current mitigation plan may change pending input from forest management companies and First Nations on recovery action preferences.
- MECP indicated that for permitting, the mitigation plan must include more than steps to minimize adverse effects on the protected species or habitats. The overall benefits concept in Figure 1A of the [Endangered Species Act submission standards](#) was shared
- MECP commented that the concept of overall benefit would apply to the entire project footprint and not just the suitable refuge and wintering habitat on-site
- Northern Bioscience commented on the difficulty of characterizing the degree of caribou habitat use and impairment over the project's life span of 13 years due to lack of documented caribou occurrences at the site combined with the dynamics of the caribou population

Feedback on Measures

- Northern Bioscience inquired about possible measures that would be effective given the status of the coast range population and timeframes
- MECP remarked that habitat restoration can be one component of an overall benefit plan, but encouraged GenPGM to think outside of the box for short, medium, and long term actions including some population management actions
- NDMNRF suggested additional consultation with public and First Nations prior to decommissioning and restoration of the Neys and Vein Lake roads as a mitigation measure. The main portion of Vein Road cannot be closed since a new haul road is proposed there under the current forest management plan. Neys Road is often used by local people
- MECP expressed some concerns with the viability of certain proposed offsite mitigation measures for reasons such as the example posed by NDMNRF regarding the Neys and Vein Lake Road options and the new haul road

Next Steps

MECP invited GenPGM to have more detailed conversations on the path forward for overall benefit permitting. GenPGM and MECP will coordinate a meeting focused on overall benefit permitting for later in December.

Meeting ended at 4:05pm

Caribou OBP for the Marathon Project
Meeting Notes

Meeting Date:	Wednesday, December 8, 2021	Location:	Virtual Microsoft Teams Meeting
Meeting Time:	1:30PM – 3:00PM (ET)		

Attendees	Generation PGM (GenPGM) Cathryn Moffett Jeremy Dart Northern Bioscience Robert Foster	Ministry of the Environment, Conservation and Parks (MECP) Species at Risk Branch (SARB) Brienne Brothers Kristina Hubert Lindsay McColm
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PURPOSE

- Follow up to initial December 1, 2021 discussion between GenPGM and MECP SARB on caribou mitigation strategy and to seek provincial input on mitigation measures
- Discussion on an overall benefit permit process under the Endangered Species Act

DOCUMENTS

- PowerPoint Presentation by GenPGM

SUMMARY OF THE MEETING

<i>Introductions and Scope of Meeting</i>
<p>Understanding EA process is ongoing, meeting scoped to <i>Endangered Species Act, 2007</i> (ESA) permitting given the potential for residual effects of the project on caribou, including permitting and application process, expectations and requirements, information needs, timing, etc.</p> <p>Mutual agreement to first have a limited discussion regarding species at risk bats, in the context of the ESA, including:</p> <ul style="list-style-type: none"> • Clarification on use of timing windows still needed to assess impacts, particularly harm and harassment to individuals • Best practices shared for mitigation including adherence to species at risk bat timing window (avoiding tree clearing in active season May 1 – August 31) • Timeline of EA hearings and decisions will be a factor in sharing targeted project commencement timelines (e.g., fall vegetation clearing may be planned) • General discussion and agreement that timing is effective mitigation (i.e. avoidance) and maternal roost sweeps (searches) within the sensitive timing window would not achieve avoidance and therefore be subject to the ESA.
<i>Power Point Presentation and Discussion</i>
<p>Presentation shared and general discussion of the following:</p>

January 14th Plan Update

- GenPGM to provide additional information by January 14, 2022 related to Caribou to the Panel before the start of the hearings as per the Panel's December 2021 request.

Indigenous Engagement

- Consultation ongoing with Biigtigong Nishnaabeg, Michipicoten First Nation and other Indigenous communities.

Habitat Loss

- MECP advises an overall benefit permit under the ESA will be required for Marathon Palladium project as it related to Caribou.
- GenPGM suggested that just modelled caribou habitat would be impacted; MECP acknowledged there are pockets of disturbed patches/areas and that contextual factors are important however, MECP advised Proponent that entire ~1,100 ha project footprint is supportive of caribou carrying out life processes within the Lake Superior Coast Range (LSCR).
- Iterative discussions and negotiations will be important as more information forthcoming (e.g., mine closure plan details, rehabilitation works, etc.).

Seven Types of Potential Actions Identified (e.g., Potential Benefits)

Discussion led by GenPGM/Northern Bioscience

- General discussion of short term (e.g., life of mine is 0-15 years), medium term (e.g., mine closure to 40 years out) and long-term timeframes (e.g., up to and beyond 80 years).

1. Road Decommissioning

- MECP continues to express some concerns with the viability of certain proposed offsite mitigation measures.
- MECP does not manage crown roads; recommends and encourages collaborative discussions with the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) to ask questions (e.g., roads identified in Forest Management Plans, roads slated for closure, etc.) and to understand possibilities, obligations and implications of identifying viable candidate roads given that NDMNRF manage Crown land.
- MECP expressed willingness to attend possible future meetings with NDMNRF and GenPGM to support the discussion regarding habitat restoration activities on Crown land as overall benefit actions supporting an ESA authorization.

2. Translocations

- Suggested possible translocation efforts (i.e. moving caribou from Caribou Island to another location) MECP indicates that it is up to GenPGM to propose this or other overall benefit (OB) actions but cautions that risks may exist if their forthcoming ESA permit involves translocations in the same geography (i.e islands within or near the Lake Superior Coast Range) as another existing ESA permit involving caribou translocations.

3. Maternal Penning

- Used in other jurisdictions to reduce calf mortality; typically involves fenced areas within range.
- Caribou Island could potentially serve as a fenceless, natural “maternal pen”. MECP questions what GenPGM’s role in making this an overall benefit action might be, and if proposed by GenPGM, MECP would expect rationale on how this proposal would constitute OB.

4. Monitoring

- MECP highlights that effectiveness monitoring of any habitat-based overall benefit action is a standard ESA permit condition – but is not OB itself. Effects monitoring of caribou response to the added disturbance of the proposed mine is also a monitoring action, not OB.
- However, enhanced monitoring of caribou populations within the LSCR to help inform the adaptive management framework outlined in Ontario’s Caribou Conservation Plan may be considered OB.
- Northern BioScience suggested providing resources where lacking (e.g., ground-based surveys, pellet and antler collection, etc.) and build trail camera network.
- MECP generally supportive of broader population studies (concurrent with other ESA overall benefit permits) and data would be required to be submitted to MECP to feed into adaptive management framework of caribou.
- Proponent must clearly identify what monitoring action would fall under the category of effectiveness monitoring, effects monitoring, and what monitoring actions would fall under the category of overall benefit actions to caribou as these things are not synonymous.

5. Research

- Expressed interest in exploring opportunities of potential research with respect to caribou in the LSCR.
- Any research collaboration should be chosen wisely.
- Northern Bioscience is aware of policy guidance ([Scientific studies in overall benefit permit applications | ontario.ca](#)).
- MECP notes that research activities on their own cannot be considered for overall benefit actions but are considered added benefit on top of other actions. Any research undertaken must be made public such as in a peer-reviewed journal.

6. Community-based actions

- GenPGM indicates they have support from and/or were suggested by Indigenous communities to have community-based actions.
- MECP looks forward to any proposals that the proponent wishes to put forth for this suggestion and reminds GenPGM that any and all suggestions for OB actions for caribou must have strong and clear ties to how those actions will benefit the species and can be monitored for effectiveness/success.

7. Alternative prey – predator control

- GenPGM highlights there is generally less support for this population management action but has been identified as potential action in federal recovery strategy.

Next Steps

- GenPGM to rank matrix of opportunities (i.e., pros / cons in evaluating actions to achieve an overall benefit such as a course and fine-filter exercise to determine roads decommissioning).
- Proponent to meet with NDMNRF regarding habitat restoration activities on Crown land. (complete)
- GenPGM can begin drafting Information Gathering Form and Avoidance Alternatives Form for an ESA authorization under section 17(2) (c) overall benefit permit application when able.

Meeting ended at 3:15 pm

Caribou Habitat Mitigation Planning for the Marathon Project

Meeting Notes

Meeting Date:	Thursday, December 9, 2021	Location:	Virtual via TEAMS
Meeting Time:	09:00 – 10:00 (ET)		

Attendees	<p>Generation PGM (GenPGM) Cathryn Moffett Jeremy Dart</p> <p>Northern Bioscience Robert Foster</p>	<p>Ministry of Northern Development Mines, Natural Resources and Forestry (NRF section) Raymond Tyhuis Ray Weldon Kimberly McNaughton</p>
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PURPOSE

Initial discussion between Generation PGM and NRF on caribou mitigation strategy - discussion on opportunities for road decommissioning within the region and other possible mitigation opportunities

DOCUMENTS

- Maps of proposed areas of road decommissioning (slides (maps)) were viewed but not shared with NRF

SUMMARY OF THE MEETING

Road Decommissioning:

Vein Lake

- Northern Bioscience highlighted changes since 2014 as there is much Lands interests with ongoing negotiations and proposed candidate lands, and noted area of caution in NDM's MLAS site
 - Biigtigong Nishnaabeg has expressed interests in the Killala area
- GenPGM has engaged BN and inquired about their plans in the Killala area, are aware that BN hunts in the area
- GenPGM noted that BN undertakes canoe trips down the Pic River, maintain trails, post signs in areas of Steel Lake and Killala
- GenPGM has presented the Caribou Mitigation document to BN and other Indigenous partners, but have not received written feedback on the plan. Meetings throughout November and December have included discussions with communities and comments on proposed mitigation measures.

Neys Road

- Northern Bioscience noted that in 2013, this road was in NRF's retired road layer
- Again similar to Vein Lake road, need to confirm use with Indigenous communities From NRF perspective the Neys/Killala corridors appears to still be supported by NRF, and is in Pic River FMP supp doc, and has merit ecologically.
- Northern Bioscience questioned if Neys was still a viable candidate.
- NRF indicated that this was still viable from a Biologist view, but requires ongoing engagement with Indigenous communities
- GenPGM identified that about 15 years ago this road was driveable.
 - Access to a landfill for the Park
- Northern Bioscience -There is an LUP on access road for EW Tie, but all roads are to be decommissioned and re-planted
- NRF suggested additional consultation with public and First Nations prior to decommissioning and restoration of the Neys and Vein Lake roads as a mitigation measure. The main portion of Vein Road cannot be closed since a new haul road is proposed there under the current forest management plan. Neys Road is often used by local people.

Nama Road

- NRF noted that this road was in adjacent District and as such we don't have familiarity with it at a local level. Through the FMP there may be a bridge for installation.
- NRF indicated that GenPGM is not to reach out to Wawa District directly but work through NRF -Nipigon leads for information on roads in that area.
- NRF mentioned that roads may be used for hunting and trapping, individual consultation still needs to occur (beyond Communities)

Tool Box of Back-up + Other Mitigation

Deadhorse Creek – Maclaren Block

- GenPGM was wondering if it was possible to: make up for shortfalls in regeneration; undertake enhanced silviculture; or other opportunities to plant in-block or access roads etc
- GenPGM mentioned that as per December 8, 2021 discussions with MECP, these 4 areas are not considered enough for Overall Benefit. GenPGM is now seeking other alternatives/opportunities on the landscape.
- Northern Bioscience mentioned that Gerry Racy had other ideas, and GenPGM is interested if NRF had ideas to contribute:
 - Are there opportunities for harvest/renewal in the Coastal Range?
 - Is it possible to branch further than the 10 km limit of the Coastal Range considering opportunities for persistence and connectivity?
 - If looking at Maclaren Block – are there opportunities to look at adjacent areas?
- NRF mentioned that the White River Forest Management Plan has wording towards connectivity between Park and Nagag – specific BMP/SMP eg drop trees or slash on roads to discourage use
- GenPGM is looking to support policies and plans of the Ministry for consideration of caribou habitat
- NRF confirmed that GenPGM cannot consider anything in an FMP ie cannot change FMP SGRs, ie GenPGM has to look at opportunities in alternative areas (not active silviculture or tending)

- Northern Bioscience – look at other roads that have been returned to the Crown and supported by the Crown
 - 1100 hectares of disturbed mine site so need equivalent of on-the-ground habitat (size of area reflects entire disturbance from Project footprint)
- NRF suggested to look for new options eg get the most updated planning composite layers information and look at older silviculture blocks and look at potential blocks for enhancement
 - New updated info (including high resolution satellite imagery)
 - Areas where SFL/company is gone
 - Look at tending opportunities, roads, failed SGRs, areas considered degraded.
 - Natural disturbances are wide open
- GenPGM noted that they need as much info as possible for January 14th submission
 - Aiming for an end of September decision on the EIS, as to start construction they need to consider/respect habitat for breeding birds and bats, so very important for them to get their plan into MECP for OB permit
 - Need to lead with discussions with NRF, and engage NRF to help identify sites similar to NRF involvement in 2012-2014, and seeking NRF time to engage
- NRF clarified that we do not have available time to be involved in doing the heavy lifting (sifting through records on our end), and identified that last time it was KBM doing the heavy lifting
 - Recommended to get the information previously discussed (composite, eFRI, imagery etc)
 - Talk to the trapper, BN council
 - Engage NFMC
- NRF also cautioned that even if NRF is okay with mitigation projects, not sure if MECP accepts as part of the mitigation plan for caribou
- Northern Bioscience indicated that they will engage with Neil MacDonald (NFMC) as has a connection through the forest audit, and engage with Sarah and Steve Bros as they may be a better consultant to engage (instead of KBM) with the local familiarity with the landscape and local FMPs
- NRF cautioned that we continue to indicate consultation with BN, however, consultation on the Mitigation Plan should be occurring with all communities (and not just BN)
- NRF mentioned that since these mitigation measures (road decommissioning proposals) have previously been shared with communities already, and no comments received as yet, then GenPGM may need to alter the way they are consulting (but we cannot tell you how to do consultation). It has been NRF's experience that communities and local stakeholders (trappers) are very much interested at multiple levels when discussing removing roads/access from a landscape.
- NRF questioned if there were opportunities for Research eg Permanent Sample Plots (hiring of consultants for measuring Grown and Yield plots)?
- Northern Bioscience mentioned that a Policy paper for OB indicates that proposed research should show benefit for the species
- NRF questioned about looking for opportunities for habitat regeneration in Parks and Conservation Reserves (recognizing that this needs engagement from MECP)
- Northern Bioscience mentioned that it is very difficult to arrange and follow-through on a Prescribed Burn, with MECP and NRF Fire Program (and all safety measures, conditions etc)
- NRF identified that NRF Nipigon District collected seeds for natural fires occurring within the Conservation Reserves when CRs were still under our authority. We have them collected and stored at a seed facility.
- GenPGM confirmed that could be considered as need both short, medium, and long term projects identified for OB

- NRF questioned if GenPGM has data share agreements to access the forestry information? If not, suggested to engage with NFMC – Neil McDonald as previously discussed as it could even be on their website.
- Northern Bioscience will check on this (access to FMP information)
- NRF suggested that GenPGM should also check with Neil McDonald for additional info in the base model inventory or planning composite, and also LIDAR, and non-FRI imagery
- GenPGM suggested that it would be nice to get in the same room and work through maps together once all information is pulled together
- NRF mentioned that we can engage in site meetings but have protocols in place

Next Steps

- GenPGM / Northern Bioscience to engage with NFMC (gather information)
- GenPGM / Northern Bioscience to engage with Bros consultants (do the heavy lifting on identifying opportunities)
- GenPGM to engage with Communities and other land users on proposed mitigation opportunities

Next meeting: GenPGM, Northern Bioscience and NRF to re-engage Thursday Jan 6 at 11:00 via Teams (postponed to January 20th)

Meeting ended shortly after 10:00

Marathon Project

December 15, 2021

ON Regulator Engineering Discussion

Attendees

Individual	Representing
Kimberly McNaughton	NDMNRF
Scott Burgess	NDMNRF
Ray Tyhuis	NDMNRF (left early due to other mtg commitment)
Colin Hovi	NDMNRF
Abbie Asunmaa	NDMNRF
Andrew Bromley	NDMNRF
Kevin Brown	NDMNRF
Jeremy Dart	GenPGM
Craig Hall	Knight Piesold

1. General Arrangement drawings should clearly identify the areas identified in the assessment, e.g. CP Rail line, Stream 1, 6 & 7, Pic River, Shack Lake. – **noted the requirement for better labelling and clearer maps**
2. As it is unclear whether these are online/offline structures, Dams should also be classified in accordance with the CDA guidelines. – **KP to classify using 2 lables, LRIA and CDA. Dams will most likely be classified as online structures for Stage 1 and Offline afterwards**
3. Depending on foundation conditions, dam construction design etc., the PSMF dams may be subject to brittle failure (i.e. sudden release of containment). As such, the analysis should consider “Loss of Life” of personnel in the Plant site, construction offices, aggregate plant in the event of a sudden release/failure of the eastern PSMF Dams. – **KP to consider this in detailed design**
4. Clarity on whether these structures are online or offline – **see note 2**
5. For LRIA guidelines, HPC for both Sunny Day Failure and Flood Failure is Required **-noted and will be undertaken by KP**
6. General site plan layout has been updated since these HPC documents were created. Are there any changes to the inundation zones or HPCs? **-no significant changes**
7. Public use of the areas and permanent/temporary dwellings should be noted for each of the routes and dams as this could affect the HPC. And for areas of public use where transient persons are present or where dwellings/temporary buildings exist, would flows exceed the 2x2 rule? – **will be considered in analysis and input from GenPGM required for public use, etc**
8. For the PSMF, for the assumption that a portion of the process solids would be released during a failure of an embankment – is there data to support this assumption, and what portion is expected to be released. Is there a specific point where more significant

effects could occur if a higher portion or all is released during a failure? – Have to look at Sunny and Wet Scenarios but likely only under wet scenario

9. PSMF - Are there other dams upstream or downstream that could cause a cascade failure? – likely with WMP to SMP and possibly with the Divider Dam and Cell 2 – KP to confirm
10. Quote taken out of context for persons temporarily in an inundation zone. Transient persons under certain circumstances should be considered for sunny day failure. – see note 7
 - a. For flood conditions, loss of life is considered for permanent dwellings (permanent dwellings and trailer parks).
 - b. For sunny day, loss of life is considered for permanent dwellings and transient persons (permanent dwellings, trailer parks, seasonal campgrounds, and transients)
11. Powerlines run over the potential inundation zones. Have the effects of the event been considered for the powerlines. – need to confirm inundation for powerline-KP to address
12. Has future development been considered when assessing the HPCs and property losses – not at this time but will be part of updated HPC
13. What is the marathon Groundwater protection zone – see email provided
14. PSMF - Need to confirm whether the recovery of fish populations is possible, and if there are any endangered species/habitat that could be affected. Need verification from ministry specialist. – working with ECCC, MECP, DFO on this but Schedule 2 and Section 35 authorizations will be required
15. PSMF - Is there information available for the streams that are being overprinted, as this would have potential irreversible affects on the fish and habitat. Based on the information would need verification from ministry specialist. – see note 14
16. Would need verification that no losses on cultural – built heritage losses would be occurring by ministry specialist – cultural assessment done but no details provided
17. General note: dams separated by undisturbed parent material must be classified separately] – noted by KP
18. Ministry specialists to confirm this statement that minimal deterioration of fish habitat will occur. Are there fish in the existing streams that will be affected during construction? – see note 14
19. Typo – In MRSA document, cultural losses are listed as the PSMF embankments but should be for the MRSA embankments. – noted by KP to include MRSA catch basins. General site plan reviewed indicating location of catch basins
 - a. Would need verification that no losses would be occurring by ministry specialist (cultural – losses) – see note 16

MNRF want to be consulted early on for credible failure modes which is beneficial to us

MNRF – internal meeting to clarify permitting under LRIA or Mining Act – will provide feedback as permitting schedule will be important. They recognize the need for Schedule 2