

SCREENING DECISION REPORT NIRB FILE No.: 17EA020

NPC File No.: 149465

Associated NPC File No.: 148482

June 7, 2021

Following the Nunavut Impact Review Board's (NIRB or Board) assessment of all materials provided, the NIRB is recommending that a review of 5530 Nunavut Inc.'s "Precious Metal Property" is not required pursuant to Article 12, Section 12.4.4(a) of the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement) and s. 92(1)(a) of the Nunavut Planning and Project Assessment Act, S.C. 2013, c. 14, s. 2 (NuPPAA).

Subject to the Proponent's compliance with the terms and conditions as set out in below, the NIRB is of the view that the project proposal is not likely to cause significant public concerns, and it is unlikely to result in significant adverse environmental and social impacts. The NIRB therefore recommends that the responsible Minister accepts this Screening Decision Report.

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REGULATORY FRAMEWORK

The primary objectives of the NIRB are set out in Article 12, Section 12.2.5 of the *Nunavut* Agreement and are confirmed by s. 23 of the NuPPAA:

Nunavut Agreement, Article 12, Section 12.2.5: In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

The purpose of screening is provided for under Article 12, Section 12.4.1 of the Nunavut Agreement and s. 88 of the NuPPAA which states:

NuPPAA, s. 88: The purpose of screening a project is to determine whether the project has the potential to result in significant ecosystemic or socio-economic impacts and, accordingly, whether it requires a review by the Board...

To determine whether a review of a project is required, the NIRB is guided by the considerations as set out under Article 12, Section 12.4.2(a) and (b) of the Nunavut Agreement and s. 89(1) of NuPPAA which states:

NuPPAA, s. 89(1): The Board must be guided by the following considerations when it is called on to determine, on the completion of a screening, whether a review of the project is required:

- (a) a review is required if, in the Board's opinion,
 - the project may have significant adverse ecosystemic or socioeconomic impacts or significant adverse impacts on wildlife habitat or Inuit harvest activities,
 - the project will cause significant public concern, or ii.
 - the project involves technological innovations, the effects of which are unknown: and
- (b) a review is not required if, in the Board's opinion,
 - the project is unlikely to cause significant public concern, and
 - its adverse ecosystemic and socioeconomic impacts are unlikely to be significant, or are highly predictable and can be adequately mitigated by known technologies.

It is noted that under Article 12, Section 12.4.2(c) and s. 89(2) of the NuPPAA provides that the considerations set out in s. 89(1)(a) prevail over the considerations set out in s. 89(1)(b) of the NuPPAA.

As set out under Article 12, Section 12.4.4 of the *Nunavut Agreement* and s. 92(1) of the *NuPPAA*, upon conclusion of the screening process, the Board must provide its written report the Minister. The contents of the NIRB's report are specified under *NuPPAA*:

NuPPAA, s. 92(1): The Board must submit a written report to the responsible Minister containing a description of the project that specifies its scope and indicating that:

- (a) a review of the project is not required;
- (b) a review of the project is required; or
- (c) the project should be modified or abandoned.

Where the NIRB determines that a project may be carried out without a review, the NIRB has the discretion to recommend specific terms and conditions to be attached to any approval of the project proposal pursuant to paragraph 92(2)(a) of *NuPPAA* as follows:

NuPPAA, s. 92(2) In its report, the Board may also

(a) recommend specific terms and conditions to apply in respect of a project that it determines may be carried out without a review.

PROJECT REFERRAL

On February 26, 2021, the NIRB received a referral to screen 5530 Nunavut Inc.'s "Precious Metal Property" project proposal from the Nunavut Planning Commission (Commission), with an accompanying positive conformity determination with the Keewatin Regional Land Use Plan. The Commission noted that the previous conformity determination issued on March 15, 2017, for the activities associated with the current proposal continues to apply and has determined that the project proposal is a significant modification to the project because of the intensification of drilling to 15,000 to 20,000m with up to four (4) drills, construction of a new campsite, and increase of fuel storage.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Nunavut Agreement* and s. 87 of the *NuPPAA*, the NIRB commenced screening this project proposal. Due to the proposal containing activities that were sufficiently related to previously assessed activities under NIRB file number **17EN020**, the NIRB viewed this project proposal as an amendment to the previously screened project and assigned the proposal with the NIRB File No. **17EA020**.

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

1. Screening Process Timelines

The following key stages were completed for the screening process:

Date	Stage
February 26, 2021	Receipt of amended project proposal and positive conformity
	determination (Keewatin Regional Land Use Plan) from the Commission.
March 1, 2021	Receipt of online application from Proponent
March 2, 2021	Scoping pursuant to s. 86(1) of the <i>NuPPAA</i>
March 10, 2021	Public engagement and comment request
March 31, 2021	Receipt of public comments

Date	Stage
April 7, 2021	Proponent provided with an opportunity to address comments/concerns
	raised by public
April 21, 2021	Proponent responded to comments/concerns raised by public
April 13, 2021	Ministerial extension requested from the Minister Northern Affairs
June 7, 2021	Issuance of Screening Decision Report

2. Project Scope

All documents received and pertaining to this project proposal can be accessed from the NIRB's online public registry at www.nirb.ca/project/125589.

The following table provides a summary of the $\underline{original}$ project as previously screened by the NIRB (File No. 17EN020):

Original	Meadowbank Precious Metal Project					
Project:						
Region:	The project as previousl	y approved was lo	ocated within	the Kivallic	region.	
Location:	Eastern part of the Distr	ict of Kivalliq				
Closest	Baker Lake	Distance	100	Direction	northeast	t
Community:		(approximate)	kilometres		from t	the
			(km)		commun	ity
Summary of	The Project as originally screened included an early stage exploration program					
Project	to delineate targets for diamond drilling, and explore for economic gold deposits					
Description:	in three (3) locations along the existing Meadowbank Road. A complete					
	description of the scope of activities previously approved has been included					
	within <u>Appendix A</u> .					
Original	June to August 2017					
Project						
Timeline:						

The following table provides a summary of the current *amended* project as proposed by 5530 Nunavut Inc.:

Amended	Precious Metal Property				
Project:					
Region:	The project would be lo	cated in the same	area as previo	ously approv	ed and would
	be located within the K	be located within the Kivalliq region.			
Location:	Eastern part of the District of Kivalliq				
Closest	Baker Lake	Distance	50	Direction	North of the
Community:		(approximate)	kilometres		Community
			(km)		
Summary of	The Proponent intends to amend the scope of previously approved activities to				
Project	drill 15,000 to 20,000 metres with up to four (4) drills, construct a new campsite,				
Description:	and the increase of fuel	and the increase of fuel storage.			

Project	March to June, 2021
Proposed	
Timeline:	

As required under s. 86(1) of the NuPPAA, the Board accepts the scope of the project as set out by 5530 Nunavut Inc. in the proposal. The scope of the amended project proposal includes the following undertakings, works, or activities:

- Establishment of a temporary twenty (20) person exploration camp;
- Use of two (2) All-terrain vehicles and trailers to transport equipment, supplies, and personnel;
- Use of two (2) helicopters to transport personnel, equipment, and supplies to various sites and conduct surveys on the property;
- Use of four (4) diamond drill for core sample collection;
- Conduct prospecting, till sampling and ground geophysical surveys near the vicinity of the approved Meadowbank mine;
- Transportation, temporary storage (cache), and use of up to 46,125 Litres of gasoline and diesel fuel:
- Use of one (1) Dual chamber controlled air incinerator for combustible waste;
- Use of six (6) Generators to supply electricity for camp and drilling activities;
- Use of six (6) Water pumps to supply water for camp and drilling activities;
- Removal of non-combustible waste, includes hazardous waste materials to an approved recycling or disposal site;
- Disposal of grey water and sewage into sumps, or an appropriate natural depression, downslope from the drill;
- Undertake final abandonment and restoration activities at project sites following exploration activities.

Inclusion or Exclusion to Scoping List

The NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB proceeded with screening the project based on the scope as described above.

3. Public Comments and Concerns

Notice regarding the NIRB's screening of this project proposal was distributed on March 10, 2021, to community organizations in Baker Lake, Rankin Inlet, as well as to relevant federal and territorial government agencies, Inuit organizations and other parties. The NIRB requested that interested parties review the proposal and provide the Board with any comments or concerns by March 31, 2021, regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic or socioeconomic effects; and if so, why;
- Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; and if so, why;

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- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (and providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal including if a Review is required any additional factors that should be considered as part of that process.

On or before March 31, 2021, the NIRB received comments from the following interested parties:

- Government of Nunavut Department of Environment (GN-DoE)
- Crown-Indigenous Relations and Northern Affairs Canada
- Baker Lake Hunters & Trappers Organization
- Members of the Public

a. Summary of Public Comments and Concerns Received during the Public comment period of this file

The following provides a summary of the comments and concerns received by the NIRB from parties:

- Potential for positive effects to Inuit through employment and training opportunities;
- Requested consultation with interested parties;
- Requested clarification due to conflicting information on temporary camp capacity as well as information on the start date and duration of Orbit Garant fuel storage container establishment at AWAR:
- Requested Spill Contingency and Fuel Management Plan Update;
- Public concerns were received regarding wildlife, marine mammals, birds, fish and their habitat:
- Public concerns were received regarding water quality, air quality and terrain;

b. Comments and Concerns with respect to Inuit Qaujimaningit, Traditional, and Community Knowledge

The following is a summary of the comments and concerns received with respect to Inuit Qaujimaningit, traditional and community knowledge:

Public concerns regarding traditional uses of land, inuit harvesting activities, human health issues and heritage resources in the area.

4. Proponent's Response to Public Comments and Concerns

On April 7, 2021, due to the concerns and questions identified in the comments received from parties, the NIRB provided an opportunity for the Proponent to respond to the concerns raised during the commenting period. The following is a summary of the Proponent's response to concerns as received on April 21, 2021:

- Consultation and Incorporation of Inuit Knowledge or Inuit Qaujimajatuqangit into project
- Potential for Inuit employment and training opportunities;
- Clarification of proposed camp location and capacity;
- Clarification regarding the size, location and number of fuel containers;

- Potential disturbance to traditional use in the Thelon River and White Hills Lake areas; and:
- Clarification on caribou surveying and monitoring procedures.

5. Time of Report Extension

As a result of the time required to allow due to the complexity of comments and concerns received by parties, on April 7, 2021, the NIRB provided the Proponent with an opportunity to respond to comment s and address issues raised prior to the Board's decision-making for this file, as a result of the time required to accommodate the opportunity for the Proponent to respond to concerns raised during the public commenting period, the NIRB was not able to provide its screening decision report to the responsible Minister within 45 days as required by Article 12, Section 12.4.5 of the Nunavut Agreement and s. 92(3) of the NuPPAA. Therefore, on April 13, 2021, the NIRB wrote to the Minister of Indigenous and Northern Affairs, Government of Canada, seeking an extension to the 45-day timeline for the provision of the Board's Report.

ASSESSMENT OF THE PROJECT PROPOSAL IN ACCORDANCE WITH PART 3 OF THE NUPPAA

In determining whether a review of the project is required, the Board considered whether the project proposal had potential to result in significant ecosystemic or socio-economic impacts.

Accordingly, the assessment of impact significance was based on the analysis of those factors that are set out under s. 90 of the NuPPAA. The Board took particular care to take into account Inuit Qaujimaningit, traditional and community knowledge in carrying out its assessment and determination of the significance of impacts.

The following is a summary of the Board's assessment of the factors that are relevant to the determination of significant impacts with respect of this project proposal:

Factor	Comment
The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts.	 The physical footprint of the proposed amended project remains 4,197 square kilometers as the amendment does not change the area of the project. The proposed project continues to take place within habitats of ungulate species such as caribou and muskox, and habitats for many far-ranging wildlife species, migratory and non-migratory birds, and populations of small mammals. Some of the project area was identified in the original assessment as overlap rutting grounds, including migration areas for caribou herds and other wildlife species, as such may potentially affect animal migratory patterns.
The ecosystemic sensitivity of that area.	The proposed project would take place in an area with identified ecosystemic sensitivity, which would occur within seasonal ranges, migration areas, and post breeding corridors for Beverly and Qamanirjuaq caribou herds.

Factor		Comment
The historical, cultural and	-	The Proponent proposed all efforts will be made to
archaeological significance of that area.		respect and preserve all natural, cultural or historical resources in the area.
	•	No specific areas of historical, cultural, and
		archaeological significance have as yet been
		identified by the Proponent within the physical footprint of the project, however no specific
		background research or prior surveys have been
		indicated as having been carried out.
	•	The Proponent has committed to carrying out a desktop survey of documented archaeological sites.
The size of the human and the	-	The proposed project would occur approximately 50
animal populations likely to be		kilometres from the hamlet of Baker Lake, the
affected by the impacts.		nearest community; as such, human populations are likely to be affected by project impacts. The
		Proponent has indicated that the proposed mineral
		exploration activities at some drill sites (Areas B and
		C) may likely affect the water supply sources for the
		community of Baker Lake, and may overlap with seasonal home ranges for caribou herds and other
		wildlife species. No other specific animal
		populations have been identified as likely to be
The nature, magnitude and	-	affected by potential project impacts. A zone of influence of up to 100 km from the most
complexity of the impacts; the		potentially-disruptive project activities was selected
probability of the impacts occurring;		for the NIRB's assessment.
the frequency and duration of the impacts; and the reversibility or	•	With adherence to the relevant regulatory requirements and application of the mitigation
irreversibility of the impacts.		measures recommended by the NIRB, no significant
, ,		residual effects are expected to occur.
The cumulative impacts that could	•	The mitigation measures recommended by the NIRB
result from the impacts of the project combined with those of any other		have been designed with consideration for the potential for cumulative effects to result from the
project that has been carried out, is		impacts of the project combined with other past,
being carried out or is likely to be		present and reasonably foreseeable projects.
Carried out. Any other factor that the Board	•	The proposed project consists of an increase in
considers relevant to the assessment		existing activities.
of the significance of impacts.	-	The Proponent has identified an existing camp
		location as a possible alternative to the creation of an entirely new camp.
	Ь	churchy new camp.

Other past, present and reasonably foreseeable projects considered in this assessment:

NIRB Project Number	Project Title	Project Type			
Proposed Developments – undergoing assessment					
21EN008	Kahuna Gold Property Mineral Exploration				
Present Projects – approved or in operation					
16MN056	Whale Tail Pit Project	Mine			
03MN107	Meadowbank Gold Mine	Mine			

VIEWS OF THE BOARD

In considering the factors as set out above in the screening of the project proposal, the NIRB has identified a number of issues below and respectfully provide the following views regarding whether or not the proposed project has the potential to result in significant impacts. In addition, the NIRB has proposed terms and conditions that would mitigate the potential adverse impacts identified.

The NIRB has listed specific Acts and Regulations below that may be applicable to the project proposal but this list should not be considered as a complete list and the Proponent is responsible to ensure that it follows all Acts and Regulations that may be applicable to the project proposal.

Ecosystem, wildlife habitat and Inuit harvesting activities:

Valued Component	Potential negative impacts to terrestrial wildlife (including caribou and muskox), migratory and non-migratory birds, and their associated habitats due to increased noise generated from exploration activities, daily transport of personnel to project sites by truck and helicopter, and camp set-up.
Potential effects:	Potential adverse effects to due to increased noise generated from exploration activities, daily transport of personnel to project sites by truck and helicopter, and camp set-up.
Nature of Impacts:	The potential for impacts is considered to be limited due to infrequent and temporary activities and any resulting impacts would be expected to be reversible.
Mitigating Factors:	The Proponent has previously committed to suspending all operations within 10 km of any caribou crossing until the caribou have safely crossed, and would ensure that no exploration activities cause diversion to the migration patterns of any caribou, Further, the implementation of minimum flight altitudes and seasonal restrictions are expected to further mitigate potential adverse impacts to caribou and muskox, including migratory birds. In addition, the Proponent has previously submitted an Environmental Management Plan, which outlines various commitments and wildlife management protocols to be implemented in order to mitigate adverse impacts on caribou and other terrestrial wildlife species.

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Previously	Waste Disposal/Incineration – 7
Recommended	Fuel and Chemical Storage – 10
Terms and	Wildlife – General – 16-19
Conditions:	Migratory Birds and Raptors Disturbance – 20 through 23
	Aircraft Flight Restrictions – 24 through 28
	Caribou and Muskox Disturbance – 29 through 32
	Ground Disturbance - 34
Proposed New	No new terms and conditions applicable
Terms and	
Conditions:	
Related Acts and/or	The Board previously recommended in the May 18, 2018 Screening
Regulations:	Decision Report(s) the following legislation, which continues to apply
	to the current proposal:
	1. The Migratory Birds Convention Act and Migratory Birds Regulations (http://laws-lois.justice.gc.ca/eng/acts/M-7.01/).
	2. The <i>Species at Risk Act</i> (http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html). Attached in Appendix A is a list of Species at Risk in Nunavut.
	3. The <i>Wildlife Act (Nunavut)</i> and its corresponding regulations (http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html).
	4. The <i>Aeronautics Act</i> (http://laws-lois.justice.gc.ca/eng/acts/A-2/) and the <i>Canadian Aviation Regulations</i> (https://www.tc.gc.ca/eng/acts-regulations/regulations-sor96-433.html).

Valued Component	Potential negative impacts to surface water quality, and fish and fish
	habitat, vegetation health, and soil quality from drilling activities, camp
	establishment, fuel transportation, and disposal of hazardous materials.
Potential effects:	Potential for adverse impacts to surface water quality, fish and fish
	habitat, vegetation health and soil quality from drilling wastes and fuel
	spills.
Nature of Impacts:	The potential for impacts is considered to be limited, The Proponent has
	committed to ensuring no drilling waste would be allowed to spread to
	the surrounding lands or water bodies during project activities.
Mitigating Factors:	It is recommended that potential adverse impacts to surface water
	quality, and fish and fish habitat, vegetation health, and soil quality may
	be mitigated by measures such as requiring the Proponent not to allow
	any drilling wastes to spread to the surrounding lands or water bodies,
	and locating all fuel and other hazardous materials a minimum of thirty-
	one (31) metres away from the high water mark of any water body.
Previously	Water Use – 5 and 6
Recommended	Fuel and Chemical Storage – 11 through 15

Terms and	Ground Disturbance - 33		
Conditions:	Drilling on Land – 35 through 40		
	Restoration of Disturbed Areas – 44 and 45		
Proposed New	n/a		
Terms and			
Conditions:			
Related Acts and/or	The Board previously recommended in the May 18, 2018 Screening		
Regulations:	Decision Report(s) the following legislation, which continues to apply		
	to the current proposal:		
	1. The Fisheries Act (http://laws-lois.justice.gc.ca/eng/acts/F-		
	14/index.html).		
	2. The Nunavut Waters and Nunavut Surface Rights Tribunal Act		
	(http://laws-lois.justice.gc.ca/eng/acts/n-28.8/).		
	3. The Transportation of Dangerous Goods Act (http://laws-		
	<u>lois.justice.gc.ca/eng/acts/t-19.01/</u>) and the <i>Transportation of</i>		
	Dangerous Goods Regulations (http://www.tc.gc.ca/eng/tdg/clear-		
	<u>tofc-211.htm</u>).		
	4. The Canadian Environmental Protection Act (http://laws-		
	lois.justice.gc.ca/eng/acts/C-15.31/).		
	The Proponent is advised that the Canadian Environmental		
	Protection Act lists calcium chloride (CaCl) as a toxic substance.		
	The Proponent should assess alternatives to the use of CaCl as a drill		
	additive, including biodegradable and non-toxic additives.		

Valued Component	Potential negative impacts to ground stability, and permafrost from				
	camp establishment and drilling activities.				
Potential effects:	The Proponent has identified that heat radiating from camp buildings				
	may thaw permafrost, and impact ground stability during project				
	activities.				
Nature of Impacts:	The potential negative impacts to ground stability and permafrost are				
	considered to be of low magnitude and reversible.				
Mitigating Factors:	The Proponent has provided mitigation measures within its updated				
	Environmental Management Plan to prevent disturbance to permafrost				
	within the project area.				
Previously	Drilling on Land – 39 and 41				
Recommended	Temporary Camps – 43				
Terms and	Restoration of Disturbed Areas - 45				
Conditions:					
Proposed New	n/a				
Terms and					
Conditions:					

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Related Acts and/or	n/a
Regulations:	

Valued Component	Potential negative impacts to public and traditional land use activities in			
	the area due to transportation of personnel and equipment to the			
	exploration sites and camping activities.			
Potential effects:	There is potential for adverse impacts to the public and traditional land			
	use activities due to the site's close proximity to seasonal home ranges			
	and migration routes of caribou and other terrestrial wildlife species.			
Nature of Impacts:	The potential negative impacts to public and traditional land use			
	activities are considered to be of low magnitude and reversible.			
Mitigating Factors:	Terms and conditions have been recommended to avoid disturbance to			
	key wildlife species, birds, and humans, to minimize negative impacts			
	to traditional land use activities by ensuring ongoing consultation with			
	the community and community organizations.			
Previously	Wildlife - 16 through 19			
Recommended	Migratory Birds and Raptors Disturbance – 20 through 23			
Terms and	Aircraft Flight Restrictions – 24 through 28			
Conditions:	Caribou and Muskox Disturbance – 29 through 32			
	Other – 46 and 48			
Proposed New	n/a			
Terms and				
Conditions:				
Related Acts and/or	n/a			
Regulations:				

Socio-economic effects on northerners:

Valued Component	Potential negative impacts to historical, cultural and archaeological sites			
	from ground-based exploration activities and establishment of a			
	temporary camp.			
Potential effects:	The Proponent has committed to ensuring that no heritage resource sites			
	within the project sites would be disturbed, and that an archaeological			
	assessment of the project area would be completed prior to exploration			
	activities.			
Nature of Impacts:	The potential negative impacts to historical, cultural and archaeological			
	sites are considered to be of low magnitude and reversible.			
Mitigating Factors:	The Proponent has committed to using results of the Nunavut			
	Archaeological Sites Database search in conjunction with landscape			
	data provided by satellite imagery and NTS topographic maps to			
	evaluate the historical resources potential of the study area prior to			
	exploration drilling and ceasing activities that may disturb any			
	archaeological or Palaeontological sites if encountered during operation.			

Previously	Other - 46
Recommended	
Terms and	
Conditions:	
Proposed New	n/a
Terms and	
Conditions:	
Related Acts and/or	The Board previously recommended in the May 18, 2017 Screening
Regulations:	Decision Report(s) the following legislation, which continues to apply
	to the current proposal:
	1. The <i>Nunavut Act</i> (<u>http://laws-lois.justice.gc.ca/eng/acts/N-28.6/</u>)

Valued Component	Potential positive impacts to the local community from hiring of local			
	residents to assist with the proposed project activities			
Potential effects:	There is potential for positive impacts from hiring of locals to assist with			
	the proposed project activities.			
Nature of Impacts:	The Proponent has committed to work with the community of Baker			
	Lake to provide hiring and employment opportunities, ad consult with			
	local stakeholders in order to gather extensive knowledge of the land			
	and wildlife during exploration activities.			
Mitigating Factors:	Terms and conditions have been recommended to ensure the Proponent			
	continues to inform the community of mineral exploration activities, as			
	well as provide community members with information to ensure a			
	successful local hiring opportunity.			
Previously	Other – 46 and 47			
Recommended				
Terms and				
Conditions:				
Proposed New	n/a			
Terms and				
Conditions:				
Related Acts and/or	n/a			
Regulations:				

Significant public concern:

Valued Component	Public concern was express during the public commenting period for		
	this file regarding potential impact on traditional land use areas and		
	disturbance to wildlife.		
Potential effects:	Potential negative impacts to land use areas near and within the project		
	area are used for hunting, camping, and fishing.		
Nature of Impacts:	The potential for impacts is considered to be limited due to infrequent		
	and temporary activities of drilling operations and the limited area of a		
	new camp, and any resulting impacts would be expected to be reversible.		

	The activities in this amendment have been carried out by the Proponent				
	since 2017, and no significant concerns have been submitted to the				
	NIRB in regard to the ongoing activities.				
Mitigating Factors:	The Proponent has indicated there are no near-term plans to conduct				
	exploration or drilling in the area between the Thelon River and White				
	Hills Lake, an area identified as important in community comments. The				
	Proponent has further committed to consultation with the Hamlet,				
	Hunters and Trappers Organization, and community members in regard				
	to ongoing operations and before any operations in currently unexplored				
	areas, and to not carry out any exploration or drilling within 1 kilometer				
	of the Thelon River. As noted previously, the Proponent has also made				
	commitments regarding wildlife, fish, and traditional land use.				
Previously	Other – 46 and 48				
Recommended					
Terms and					
Conditions:					
Proposed New	Other - 49				
Terms and					
Conditions:					
Related Acts and/or	n/a				
Regulations:					

Technological innovations for which the effects are unknown:

No specific issues have been identified associated with this project proposal.

Administrative Conditions:

To encourage compliance with applicable regulatory requirements and assist the Board and responsible authorities with compliance and effects monitoring for project activities, the Board has previously recommended terms and conditions 1 through 48, which continue to apply to the current project proposal. The Board is also recommending term and condition 49 to ensure complete reference to applicable regulatory requirements.

In considering the above factors and subject to the Proponent's compliance with the terms and conditions necessary to mitigate against the potential adverse environmental and social effects, the Board is of the view that the proposed project is unlikely to cause significant public concern and its adverse ecosystemic and socioeconomic impacts are unlikely to be significant, or are highly predictable and can be adequately mitigated by known technologies.

RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS

The following terms and conditions were previously issued by the NIRB in the May 18, 2017 Screening Decision Report(s) for File No. 17EN020, and continue to apply to the "Precious Metal Property" project:

General

- 1. 5530 Nunavut Inc. (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
- 2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
- 3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (Application to Determine Conformity, February 17, 2017 and March 15, 2017), and the NIRB (Online Application Form, March 6, 2017; Non-technical Project Summaries in English and Inuktitut, Abandonment and Restoration Plan, Environmental Management Plan, Fuel Management Plan; Waste Management Plan, and Spill Prevention and Response Plan, March 7, 2017).
- 4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

Water Use

- 5. The Proponent shall not extract water from any fish-bearing waterbody unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams should not be used for water withdrawal unless approved by the Nunavut Water Board.
- 6. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

Waste Disposal/Incineration

- 7. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of at an approved facility. All such wastes shall be kept inaccessible to wildlife at all times.
- 8. The Proponent shall incinerate all combustible wastes daily, and remove the ash from incineration activities and non-combustible wastes from the project site to an approved facility for disposal.
- 9. The Proponent shall ensure that no waste oil/grease is incinerated on site.

Fuel and Chemical Storage

- 10. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
- 11. Unless otherwise authorized by the Nunavut Water Board, the Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
- 12. The Proponent shall ensure that re-fueling of all equipment occurs a minimum of thirty-one (31) metres away from the high water mark of any water body, unless otherwise authorized by the Nunavut Water Board.

- 13. The Proponent shall use adequate secondary containment or a surface liner (e.g., self-supporting insta-berms and fold-a-tanks) when storing barreled fuel and chemicals at all locations.
- 14. The Proponent shall ensure that appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) are readily available during any transfer of fuel or hazardous substances, at all fuel storage sites, at all refuelling stations, at vehicle maintenance areas and at drill sites.
- 15. The Proponent shall ensure that all personnel are properly trained in fuel and hazardous waste handling procedures, as well as spill response procedures. All spills of fuel or other deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130.

Wildlife - General

- 16. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
- 17. The Proponent shall not harass wildlife. This includes persistently circling, chasing, hovering over pursuing or in any other way harass wildlife, or disturbing large groups of animals.
- 18. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
- 19. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.

Migratory Birds and Raptors Disturbance

- 20. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance (e.g., a 100 metres buffer around the nests). If active nests of any birds are discovered (i.e., with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.
- 21. The Proponent shall minimize activities during periods when birds are particularly sensitive to disturbance such as migration, nesting and moulting.
- 22. The Proponent shall avoid the seaward site of seabird colonies and areas used by flocks of migrating waterfowl by three (3) kilometres.
- 23. The Proponent shall ensure its aircraft avoid excessive hovering or circling over areas where bird presence is likely.

Aircraft Flight Restrictions

- 24. The Proponent shall not alter flight paths to approach wildlife, and avoid flying directly over animals.
- 25. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum flight altitude of 610 metres above ground level unless except during landing, take-off or if there is a specific requirement for low-level flying, which does not disturb wildlife or migratory birds.

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- 26. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds. Aircraft should avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.
- 27. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
- 28. The Proponent shall advise all pilots of relevant flight restrictions and enforce their application over the project area, including flight paths to/from the project area.

Caribou and Muskox Disturbance

- 29. The Proponent shall cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.
- 30. The Proponent shall not block or cause any diversion to caribou or muskox migration, and shall cease activities likely to interfere with migration such as airborne geophysics surveys, drilling or movement of equipment or personnel until such time as the caribou or muskox have passed.
- 31. The Proponent shall not construct or operate any camp, cache any fuel or conduct blasting within ten (10) kilometres, or conduct any drilling operation within five (5) kilometres of any paths or crossings known to be frequented by caribou (e.g., designated caribou crossings).
- 32. During the period of May 15 to July 15, when caribou are observed within one (1) kilometre of project operations, the Proponent shall suspend all operations, including low-level over flights, blasting, and use of snow mobiles and all-terrain vehicles outside the immediate vicinity of the camps. Should pregnant caribou cows or cows with young calves be observed within one (1) kilometre of project operations, the Proponent shall also suspend all operations in the vicinity, including low-level over flights, blasting, and use of snow mobiles and allterrain vehicles, until caribou are no longer in the immediate area.

Ground Disturbance

- 33. The Proponent shall implement suitable erosion and sediment suppression measures on all areas before, during and after conducting activities in order to prevent sediment from entering any waterbody.
- 34. All construction and road vehicles must be fitted with standard and well-maintained noise suppression devices and engine idling is to be minimized.

Drilling on Land

- 35. The Proponent shall not conduct any land based drilling or mechanized clearing within thirtyone (31) metres of the normal high water mark of a water body.
- 36. The Proponent shall not allow any drilling wastes to spread to the surrounding lands or water bodies.
- 37. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.

- 38. The Proponent shall ensure that all drill areas are constructed to facilitate minimizing the environmental footprint of the project area. Drill areas should be kept orderly with garbage removed daily to an approved disposal site.
- 39. The Proponent shall ensure that all sump/depression capacities are sufficient to accommodate the volume of waste water and any fines that are produced. The sumps shall only be used for inert drilling fluids, and not any other materials or substances.
- 40. The Proponent shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body. Sumps and areas designated for waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances to do not enter a waterway unless otherwise authorized.
- 41. The Proponent shall ensure all drill holes are backfilled or capped prior to the end of each field season. All sumps must be backfilled and restored to original or stable profile prior to the end of each field season.

Camps

- 42. The Proponent shall ensure that all camps are located on gravel, sand or other durable land.
- 43. The Proponent shall ensure that the land use area is kept clean and tidy at all times.

Land Use and Restoration of Disturbed Areas

- 44. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
- 45. The Proponent shall complete all clean-up and restoration of the lands used prior to the end of each field season and/or upon abandonment of site.

Other

- 46. The Proponent should consult with local residents regarding their activities in the area and solicit available Inuit Qaujimaningit and information that can inform project activities.
- 47. The Proponent should, to the extent possible, hire local people.
- 48. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

In addition to the previously issued terms and conditions, the <u>Board recommends the following</u> project-specific terms and conditions:

49. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 149465), the NIRB (Online Application Form, February 26, 2021; Response to Comments, April 21, 2021). This information should be accessible to enforcement officers upon request.

MONITORING AND REPORTING REQUIREMENTS

The Board has previously recommended the following on May 18, 2017:

Archaeology

a. The Proponent should prepare a Heritage Resource Impact Assessment (HRIA) in order to prevent or minimize potential project-related effects on known heritage areas, and unidentified archaeological sites. The assessment should be conducted prior to commencing exploration activities and include locations (i.e. latitude and longitude) of where any archaeological sites and features are encountered relative to the project development area, and where possible should include information regarding the participation of the community of Baker Lake in the HRIA. The results of the HRIA should be submitted to the Government of Nunavut-Department of Culture and Heritage.

Consultation Report

b. Prior to operations occurring, the Proponent should submit a comprehensive consultation report to inform the NIRB of any consultation conducted with Agnico Eagle Mines (AEM) regarding use of its All-Weather Access Road (AWAR), and include any possible safety concerns raised and how they were addressed.

Final Report

- c. The Proponent shall submit a comprehensive final report to the Nunavut Impact Review Board (NIRB) on or before December 31, 2017. The final report must contain, but is not limited to, the following information:
 - a. A detailed summary of activities undertaken, including any reclamation work for drilling activities, and provide site photos where relevant;
 - b. A log of wildlife observations including locations (i.e., latitude and longitude), species, number of animals, and a description of animal activity;
 - i. A discussion of impacts to caribou, and how mitigation and monitoring was expected to address the impacts;
 - ii. A summary of impacts from the project observed during operations, the number of times work was ceased due to wildlife being in proximity to the project, and a description of how the Proponent ensured that operational activities were managed and modified to avoid impacts on wildlife and sensitive areas. Should mitigation measures be triggered, include details should include how mitigation and monitoring measures within the exploration areas were implemented and the results of the measures as implemented.
 - c. The results of any environmental studies undertaken by or in coordination with the project, or any plans for future studies;
 - d. A detailed summary of air and ground traffic volumes and description of the restrictions adopted to avoid wildlife disturbance by aircraft flight and road traffic noise:
 - e. A summary of consultations undertaken with the Baker Lake Hunters and Trappers Organization and the Kivalliq Inuit Association, providing copy of materials presented for discussion, a description of issues and concerns raised, advice offered to the company as well as any follow-up actions that were required or taken to resolve any concerns expressed about the project proposal including updated versions of plans highlighting commitments; and

f. A summary of how the company has complied with NIRB conditions contained within the Screening Decision Report.

OTHER NIRB CONCERNS AND RECOMMENDATIONS

In addition to the project-specific terms and conditions, the Board has previously recommended the following on May 18, 2017:

Change in Project Scope

1. Responsible authorities or Proponent shall notify the Nunavut Planning Commission (NPC) and the NIRB of any changes in operating plans or conditions, including phase advancement, associated with this project prior to any such change.

Bear and Carnivore Safety

- 2. The Proponent should review the Government of Nunavut's booklet on Bear Safety, which can http://gov.nu.ca/sites/default/files/bear safety be downloaded from this link: reducing bear-people conflicts in nunavut.pdf. Further information on bear/carnivore detection and deterrent techniques can be found in the "Safety in Grizzly and Black Bear Country" pamphlet, which downloaded from this link: can be http://www.enr.gov.nt.ca/sites/default/files/web_pdf_wd_bear_safety_brochure_1_may_2015 .pdf.
- 3. There are polar bear and grizzly bear safety resources available from the Bear Smart Society with videos on polar bear safety available in English, French and Inuktitut at http://www.bearsmart.com/play/safety-in-polar-bear-country/. Information can also be obtained from Parks Canada's website on bear safety at the following link: http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/d.aspx or in reviewing the "Safety in Polar Bear Country" pamphlet, which can be downloaded from the following link: http://www.pc.gc.ca/eng/pn-np/nu/quttinirpaaq/visit/visit6/~/media/pnnp/nu/auyuittuq/pdf/shared/PolarBearSafety English.ashx.
- 4. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Conservation Officer of Baker Lake, phone: (867) 793-2940).

Species at Risk

5. The Proponent review Environment and Climate Change Canada's "Environment Assessment Best Practice Guide for Wildlife at Risk in Canada", available at the following link:http://www.sararegistry.gc.ca/virtual_sara/files/policies/EA%20Best%20Practices%202 004.pdf. The guide provides information to the Proponent on what is required when Wildlife at Risk, including *Species at Risk*, are encountered or affected by the project.

Migratory Birds

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6. The Proponent review Canadian Wildlife Services' "Key migratory bird terrestrial habitat sites in the Northwest Territories and Nunavut", available at the following link: http://publications.gc.ca/site/eng/317630/publication.html and "Key marine habitat sites for migratory birds in Nunavut and the Northwest Territories", available at the following link:

- http://publications.gc.ca/site/eng/392824/publication.html. The guide provides information to the Proponent on key terrestrial and marine habitat areas that are essential to the welfare of various migratory bird species in Canada.
- 7. For further information on how to protect migratory birds, their nests and eggs when planning or carrying out project activities, consult Environment and Climate Change Canada's Incidental Take web page and the fact sheet "Planning Ahead to Reduce the Risk of Detrimental Effects to Migratory Birds, and their Nests and Eggs" available at http://www.ec.gc.ca/paom-itmb/.

Incineration of Wastes

8. The Proponent review Environment and Climate Change Canada's "Technical Document for Batch Waste Incineration", available at the following link: http://www.ec.gc.ca/gdd- mw/default.asp?lang=En&n=F53EDE13-1. The technical document provides information on appropriate incineration technologies, best management and operational practices, monitoring and reporting.

Transport of Dangerous Goods and Waste Management

- 9. Environment and Climate Change Canada recommends that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.
- 10. The Proponent shall ensure that proper shipping documents (waste manifests, transportation of dangerous goods, etc.) accompany all movements of dangerous goods. Further, the Proponent shall ensure that the shipment of all dangerous goods is registered with the Government of Nunavut Department of Environment, Department of Environment Manager. Contact the Manager (867) 975-7748 to obtain a manifest if dangerous goods including hazardous wastes will be transported.

Aircraft Identification

11. The Proponent shall provide the community of Iqaluit and Kimmirut the planned helicopter activities, including photo(s) of the helicopter to be used, approximate flight paths, plans and times as available prior to commencement of activities to ensure community members are aware of the planned activities.

Caribou Management

- 12. Territorial and federal government agencies in Nunavut should work together with Regional Inuit Associations, co-management boards and industry to develop an action plan to identify and mitigate potential cumulative effects of human land use activities, including mineral exploration, on barren-ground caribou. This assessment of cumulative effects should occur at a regional scale (i.e., larger than individual project areas).
- 13. Territorial and federal government agencies update the Caribou Protection Map with updated data and information from the Beverly Qamanirjuaq Caribou Management Board.

The Board is currently also recommending the following:

Acts and Regulations

1. The *Fisheries Act* (http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html).

- 2. The Nunavut Waters and Nunavut Surface Rights Tribunal Act (http://lawslois.justice.gc.ca/eng/acts/n-28.8/).
- 3. The Migratory Birds Convention Act and Migratory Birds Regulations (http://lawslois.justice.gc.ca/eng/acts/M-7.01/).
- 4. The Species at Risk Act (http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html). Attached in **Appendix A** is a list of Species at Risk in Nunavut.
- 5. The Wildlife Act (Nunavut) and its corresponding regulations (http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html) contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
- 6. The Nunavut Act (http://laws-lois.justice.gc.ca/eng/acts/N-28.6/). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix B**.
- 7. The Transportation of Dangerous Goods Regulations (http://www.tc.gc.ca/eng/tdg/clear-tofc-211.htm), Transportation of Dangerous Goods Act (http://laws-lois.justice.gc.ca/eng/acts/t-19.01/), Canadian Environmental (http://lawsand the Protection Act lois.justice.gc.ca/eng/acts/C-15.31/).
- 8. The Aeronautics Act (http://laws-lois.justice.gc.ca/eng/acts/A-2/).

CONCLUSION

The foregoing constitutes the Board's screening decision with respect to the 5530 Nunavut Inc's "Precious Metal Property". The NIRB remains available for consultation with the Minister regarding this report as necessary.

Dated June 7, 2021 at Baker Lake, NU.

Kaviq Kaluraq, Chairperson

M. Kaing Kaling

Appendix A: Previously Screened Project Proposals Attachments:

Appendix B: Species at Risk in Nunavut

Appendix C: Archaeological and Palaeontological Resources Terms and Conditions for Land Use

Permit Holders

APPENDIX A: Previously-screened Project Proposals

The original project proposal (NIRB File No.: 17EN020), was received by the Nunavut Impact Review Board (NIRB or Board) from the Nunavut Planning Commission on March 6, 2017. On February 17, 2017 the NIRB received a positive conformity determination from the Nunavut Planning Commission, with an accompanying positive conformity determination with the Keewatin Regional Land Use Plan. The project proposal was screened by the Board in accordance with Part 4, Article 12 of the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement) and Section 3 of the Nunavut Planning and Project Assessment Act, S.C. 2013, c. 14, s. 2 (NuPPAA). On May 18, 2017 the NIRB issued a screening decision pursuant to s. 92(2)(a) of the NuPPAA to the Minister of Indigenous and Northern Affairs Canada which indicated that the proposed project could proceed subject to the NIRB's recommended project-specific terms and conditions.

The 5530 Nunavut Inc.'s (Proponent) original "Meadowbank Precious Metal Project" project was located in the Kivalliq region, approximately 100 kilometres (km) northeast from Baker lake. The Proponent intended to conduct an early stage exploration program to delineate targets for diamond drilling, and explore for economic gold deposits in three (3) locations along the existing Meadowbank Road. The program was proposed to take place from June to August, 2017.

According to the previously screened project proposal, the scope of the project included the following undertakings, works or activities:

- Establishment of a temporary six (6) to ten (10) person exploration camp to be removed at the end of the program;
- Use of one (1) flatbed truck to transport equipment and personnel along the existing Meadowbank all-weather access road:
- Use of one (1) helicopter to mobilize camp gear, personnel and equipment to project camp sites from Meadowbank all-weather access road, and for daily drop-of and pick-up at each exploration site;
- Use of one (1) diamond drill for core rock samples;
- Conduct prospecting, till sampling and ground geophysical surveys in three (3) locations near the vicinity of the approved Meadowbank mine;
- Transportation, temporary storage (cache) and use of up to 4,000 Litres of gasoline, diesel and aviation fuel:
- Use of two (2) generators to power camp equipment and conduct drilling activities;
- Use of water for domestic and drilling activities;
- Incineration of combustible wastes with the use of a dual-chamber incinerator;
- Removal of non-combustible wastes, including hazardous waste materials to an approved recycling or disposal site;
- Disposal of grey water and sewage into sumps, or excavated pits near camp; and
- Undertake final abandonment and restoration activities at project sites following exploration activities.

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APPENDIX B: SPECIES AT RISK IN NUNAVUT

Due to the requirements of Section 79(2) of the Species at Risk Act (SARA), and the potential for project-specific adverse effects on listed wildlife species and its critical habitat, measures should be taken as appropriate to avoid or lessen those effects, and the effects need to be monitored. Project effects could include species disturbance, attraction to operations and destruction of habitat. This section applies to all species listed on Schedule 1 of SARA, as listed in the table below, or have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), which may be encountered in the project area. This list may not include all species identified as at risk by the Territorial Government. The following points provide clarification on the applicability of the species outlined in the table.

- Schedule 1 is the official legal list of Species at Risk for SARA. SARA applies to all species on Schedule 1. The term "listed" species refers to species on Schedule 1.
- Schedule 2 and 3 of SARA identify species that were designated at risk by the COSEWIC prior to October 1999 and must be reassessed using revised criteria before they can be considered for addition to Schedule 1.
- Some species identified at risk by COSEWIC are "pending" addition to Schedule 1 of SARA. These species are under consideration for addition to Schedule 1, subject to further consultation or assessment.

If species at risk are encountered or affected, the primary mitigation measure should be avoidance. The Proponent should avoid contact with or disturbance to each species, its habitat and/or its residence. All direct, indirect, and cumulative effects should be considered. Refer to species status reports and other information on the species at risk Registry at http://www.sararegistry.gc.ca for information on specific species.

Monitoring should be undertaken by the Proponent to determine the effectiveness of mitigation and/or identify where further mitigation is required. As a minimum, this monitoring should include recording the locations and dates of any observations of species at risk, behaviour or actions taken by the animals when project activities were encountered, and any actions taken by the proponent to avoid contact or disturbance to the species, its habitat, and/or its residence. This information should be submitted to the appropriate regulators and organizations with management responsibility for that species, as requested.

For species primarily managed by the Territorial Government, the Territorial Government should be consulted to identify other appropriate mitigation and/or monitoring measures to minimize effects to these species from the project.

Mitigation and monitoring measures must be undertaken in a way that is consistent with applicable recovery strategies and action/management plans.

Schedules of SARA are amended on a regular basis so it is important to check the SARA registry (www.sararegistry.gc.ca) to get the current status of a species.

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Updated: September 2019

Updated: September 2019 Terrestrial Species at Risk ¹	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility ²	
	Migrato	ory Birds		
Buff-breasted Sandpiper	Special Concern	Schedule 1	Environment and Climate Change Canada (ECCC)	
Common Nighthawk	Threatened	Schedule 1	ECCC	
Eskimo Curlew	Endangered	Schedule 1	ECCC	
Harlequin Duck	Special Concern	Schedule 1	ECCC	
Harris's Sparrow	Special Concern	Schedule 1	ECCC	
Horned Grebe	Special Concern	Schedule 1	ECCC	
Ivory Gull	Endangered	Schedule 1	ECCC	
Olive-sided Flycatcher	Threatened	Schedule 1	ECCC	
Peregrine Falcon	Special Concern	Schedule 1	ECCC	
Red Knot Islandica Subspecies	Special Concern	Schedule 1	ECCC	
Red-necked Phalarope	Special Concern	Schedule 1	ECCC	
Ross's Gull	Threatened	Schedule 1	ECCC	
Rusty Blackbird	Special Concern	Schedule 1	ECCC	
Short-eared Owl	Special Concern	Schedule 1	ECCC	
	Vege	etation		
Porsild's Bryum	Threatened	Schedule 1	Government of Nunavut (GN)	
	Arth	ropods		
Transverse Lady Beetle	Special Concern	No Schedule	GN	
	Terrestria	al Wildlife		
Caribou (Dolphin and Union Population)	Endangered	Schedule 1	GN	
Caribou (Barren-ground Population)	Threatened	No Schedule	GN	
Caribou (Torngat Mountains Population)	Endangered	No Schedule	GN	
Grizzly Bear (Western Population)	Special Concern	Schedule 1	ECCC	
Peary Caribou	Endangered	Schedule 1	GN	
Polar Bear	Special Concern	Schedule 1	ECCC	
Wolverine	Special Concern	Schedule 1	GN	
Marine Wildlife				
Atlantic Walrus (High Arctic Population)	Special Concern	No Schedule	Fisheries and Oceans Canada (DFO)	
Atlantic Walrus (Central/Low Arctic Population)	Special Concern	No Schedule	DFO	
Beluga Whale (Cumberland Sound Population)	Threatened	Schedule 1	DFO	
Beluga Whale (Eastern Hudson Bay Population)	Endangered	No Schedule	DFO	

¹ The Department of Fisheries and Oceans has responsibility for aquatic species.

² Environment and Climate Change Canada (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 Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

Terrestrial Species at Risk ¹	COSEWIC	Schedule of	Government Organization with
	Designation	SARA	Primary Management
			Responsibility ²
Beluga Whale (Eastern High	Special Concern	No Schedule	DFO
Arctic-Baffin Bay Population)			
Beluga Whale (Western Hudson	Special Concern	No Schedule	DFO
Bay Population)			
Fish			
Atlantic Cod (Arctic Lakes	Special Concern	No Schedule	DFO
Population)			
Fourhorn Sculpin (Freshwater	Data Deficient	Schedule 3	DFO
Form)			
Lumpfish	Threatened	No Schedule	DFO
Thorny Skate	Special Concern	No Schedule	DFO

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APPENDIX C: ARCHAEOLOGICAL AND PALAEONTOLOGICAL RESOURCES TERMS AND CONDITIONS FOR LAND USE PERMIT HOLDERS



INTRODUCTION

The Department of Culture and Heritage (CH) routinely reviews land use applications sent to the Nunavut Water Board, Nunavut Impact Review Board and the Indigenous and Northern Affairs Canada. These terms and conditions provide general direction to the permittee/proponent regarding the appropriate actions to be taken to ensure the permittee/proponent carries out its role in the protection of Nunavut's archaeological and Palaeontological resources.

TERMS AND CONDITIONS

1) The permittee/proponent shall have a professional archaeologist and/or Palaeontologist perform the following **Functions** associated with the **Types of Development** listed below or similar development activities:

	Types of Development	Function
	(See Guidelines below)	(See Guidelines below)
0)	Larga caala prognaating	Archaeological/ Palaeontological
a)	Large scale prospecting	Overview Assessment
	Diamond drilling for avaloration or	Archaeological/ Palaeontological
L)	Diamond drilling for exploration or geotechnical purpose or planning of linear disturbances	Overview Assessment and/or
b)		Inventory and Documentation
	illiear disturbances	and/or Mitigation
	Construction of linear disturbances,	Archaeological/ Palaeontological
c)	Extractive disturbances, Impounding	Overview Assessment and/or
	disturbances and other land	Inventory and Documentation
	disturbance activities	and/or Mitigation

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CH is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*³ to issue such permits.

³ P.C. 2001-1111 14 June, 2001





- 2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or Palaeontological site.
- 3) The permittee/proponent shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or Palaeontological site.
- 4) The permittee/proponent shall immediately contact CH at (867) 934-2046 or (867) 975-5500 should an archaeological site or specimen, or a Palaeontological site or fossil, be encountered or disturbed by any land use activity.
- 5) The permittee/proponent shall immediately cease any activity that disturbs an archaeological or Palaeontological site encountered during the course of a land use operation until permitted to proceed with the authorization of CH.
- 6) The permittee/proponent shall follow the direction of CH in restoring disturbed archaeological or Palaeontological sites to an acceptable condition. If these conditions are attached to either a Class A or B Permit under the Territorial Lands Act Indigenous and Northern Affairs Canada directions will also be followed.
- 7) The permittee/proponent shall provide all information requested by CH concerning all archaeological sites or artifacts and all Palaeontological sites and fossils encountered in the course of any land use activity.
- 8) The permittee/proponent shall make best efforts to ensure that all persons working under its authority are aware of these conditions concerning archaeological sites and artifacts and Palaeontological sites and fossils.
- 9) If a list of recorded archaeological and/or Palaeontological sites is provided to the permittee/proponent by CH as part of the review of the land use application the permittee/proponent shall avoid the archaeological and/or Palaeontological sites listed.
- 10) Should a list of recorded sites be provided to the permittee/proponent, the information is provided solely for the purpose of the proponent's land use activities as described in the land use application, and must otherwise be treated confidentially by the proponent.

Legal Framework

As stated in Article 33 of the Agreement between the Inuit of the Nunavut Settlement Area and Her *Majesty the Queen in right of Canada (Nunavut Agreement):*

Where an application is made for a land use permit in the Nunavut Settlement Area, and there are reasonable grounds to believe that there could be sites of archaeological importance on the lands affected, no land use permit shall be issued without written consent of the Designated Agency. Such consent shall not be unreasonably withheld. [33.5.12]

Each land use permit referred to in Section 33.5.12 shall specify the plans and methods of archeological site protection and restoration to be followed by the permit holder, and any other conditions the Designated Agency may deem fit. [33.5.13]

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Palaeontology and Archaeology

Under the *Nunavut Act*⁴, the federal government can make regulations for the protection, care and preservation of Palaeontological and archaeological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*₅, it is illegal to alter or disturb any Palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

Definitions

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

"archaeological site" means a place where an archaeological artifact is found.

"archaeological artifact" means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement).

"Palaeontological site" means a site where a fossil is found.

"fossil" includes:

Fossil means the hardened or preserved remains or impression of previously living organisms or vegetation and includes:

- (a) natural casts;
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the preserved eggs, teeth and bones of vertebrates.

Guidelines for Developers for the Protection of Archaeological Resources in the Nunavut Territory

(**Note:** Partial document only, complete document at: www.ch.gov.nu.ca/en/Archaeology.aspx)

Introduction

The following guidelines have been formulated to ensure that the impacts of proposed developments upon heritage resources are assessed and mitigated before ground surface altering activities occur. Heritage resources are defined as, but not limited to, archaeological and historical sites, burial grounds, Palaeontological sites, historic buildings and cairns Effective collaboration between the developer, the Department of Culture, and Heritage (CH), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

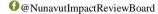
CH is the Nunavut Government agency which oversees the protection and management of

⁵ P.C. 2001-1111 14 June, 2001

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⁴ s. 51(1)

heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and the federal government. Its role in mitigating impacts of developments on heritage resources is as follows: to identify the need for an impact assessment and make recommendations to the appropriate regulatory agency; set the terms of reference for the study depending upon the scope of the development; suggest the names of qualified individuals prepared to undertake the study to the developer; issue an archaeologist or Palaeontologist permit authorizing field work; assess the completeness of the study and its recommendations; and ensure that the developer complies with the recommendations.

The primary regulatory agencies that CH provides information and assistance to are the Nunavut Impact Review Board, for development activities proposed for Inuit Owned Lands (as defined in Section 1.1.1 of the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)), and the Indigenous and Northern Affairs Canada, for development activities proposed for federal Crown Lands.

A developer is the initiator of a land use activity. It is the obligation of the developer to ensure that a qualified archaeologist or Palaeontologist is hired to perform the required study and that provisions of the contract with the archaeologist or Palaeontologist allow permit requirements to be met; i.e. fieldwork, collections management, artifact and specimen conservation, and report preparation. On the recommendation of the contract archaeologist or Palaeontologist in the field and the Government of Nunavut, the developer shall implement avoidance or mitigative measures to protect heritage resources or to salvage the information they contain through excavation, analysis, and report writing. The developer assumes all costs associated with the study in its entirety.

Through his or her active participation and supervision of the study, the contract archaeologist or Palaeontologist is accountable for the quality of work undertaken and the quality of the report produced. Facilities to conduct fieldwork, analysis, and report preparation should be available to this individual through institutional, agency, or company affiliations. Responsibility for the curation of objects recovered during field work while under study and for documents generated in the course of the study as well as remittance of artifacts, specimens and documents to the repository specified on the permit accrue to the contract archaeologist or Palaeontologist. This individual is also bound by the legal requirements of the Nunavut Archaeological and Palaeontological Sites Regulations.

Types of Development

In general, those developments that cause concern for the safety of heritage resources will include one or more of the following kinds of surface disturbances. These categories, in combination, are comprehensive of the major kinds of developments commonly proposed in Nunavut. For any single development proposal, several kinds of these disturbances may be involved

- Linear disturbances: including the construction of highways, roads, winter roads, transmission lines, and pipelines;
- Extractive disturbances: including mining, gravel removal, quarrying, and land filling;

- *Impoundment disturbances: including dams, reservoirs, and tailings ponds;*
- Intensive land use disturbances: including industrial, residential, commercial, recreational, and land reclamation work, and use of heritage resources as tourist developments.
- Mineral, oil and gas exploration: establishment of camps, temporary airstrips, access routes, well sites, or quarries all have potential for impacting heritage resources.

Types of Studies Undertaken to Preserve Heritage Resources

Overview: An overview study of heritage resources should be conducted at the same time as the development project is being designed or its feasibility addressed. They usually lack specificity with regard to the exact location(s) and form(s) of impact and involve limited, if any, field surveys. Their main aim is to accumulate, evaluate, and synthesize the existing knowledge of the heritage of the known area of impact. The overview study provides managers with baseline data from which recommendations for future research and forecasts of potential impacts can be made. A Class I Permit is required for this type of study if field surveys are undertaken.

Reconnaissance: This is done to provide a judgmental appraisal of a region sufficient to provide the developer, the consultant, and government managers with recommendations for further development planning. This study may be implemented as a preliminary step to inventory and assessment investigations except in cases where a reconnaissance may indicate a very low or negligible heritage resource potential. Alternately, in the case of small-scale or linear developments, an inventory study may be recommended and obviate the need for a reconnaissance.

The main goal of a reconnaissance study is to provide baseline data for the verification of the presence of potential heritage resources, the determination of impacts to these resources, the generation of terms of reference for further studies and, if required, the advancement of preliminary mitigative and compensatory plans. The results of reconnaissance studies are primarily useful for the selection of alternatives and secondarily as a means of identifying impacts that must be mitigated after the final siting and design of the development project. Depending on the scope of the study, a Class 1 or Class 2 Permit is required for this type of investigation.

Inventory: A resource inventory is generally conducted at that stage in a project's development at which the geographical area(s) likely to sustain direct, indirect, and perceived impacts can be well defined. This requires systematic and intensive fieldwork to ascertain the effects of all possible and alternate construction components on heritage resources. All heritage sites must be recorded on Government of Nunavut Site Survey forms. Sufficient information must be amassed from field, library and archival components of the study to generate a predictive model of the heritage resource base that will:

- allow the identification of research and conservation opportunities;
- enable the developer to make planning decisions and recognize their likely effects on the known or predicted resources; and

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• make the developer aware of the expenditures, which may be required for subsequent studies and mitigation. A Class 1 or 2 permit is required.

Assessment: At this stage, sufficient information concerning the numbers and locations of heritage resources will be available, as well as data to predict the forms and magnitude of impacts. Assessments provide information on the size, volume, complexity and content of a heritage resource, which is used to rank the values of different sites or site types given current archaeological knowledge. As this information will shape subsequent mitigation program(s), great care is necessary during this phase.

Mitigation: This refers to the amelioration of adverse impacts to heritage resources and involves the avoidance of impact through the redesign or relocation of a development or its components; the protection of the resource by constructing physical facilities; or, the scientific investigation and recovery of information from the resource by excavation or other method. The type(s) of appropriate mitigative measures are dictated by their viability in the context of the development project. Mitigation strategies must be developed in consultation with, and approved by, the Department of Culture and Heritage. It is important to note that mitigation activities should be initiated as far in advance of the construction of the development as possible.

Surveillance and monitoring: These may be required as part of the mitigation program.

Surveillance may be conducted during the construction phase of a project to ensure that the developer has complied with the recommendations.

Monitoring involves identification and inspection of residual and long-term impacts of a development (i.e. shoreline stability of a reservoir); or the use of impacts to disclose the presence of heritage resources, for example, the uncovering of buried sites during the construction of a pipeline.