

# Project Scoping Checklist 1.0

This document is meant to assist technical staff establish accurate scopes of proposed projects under assessment. The items of note below each project component **should not** be considered exhaustive lists, but rather highlights of common scoping dimensions that have been revealed in similar projects in the past.

### **Primary Project Component**

• Primary Project Component: As a general rule, these components should be included in every project scope that is assessed. There will be exceptions to this general rule; however, particular care should be taken to assess the circumstances where primary components are not included in a project scope.

# **Project-Related Component**

• **Project-Related Component:** These components are closely related to primary project components, but are to be considered on a project-to-project basis depending on the activities that are being proposed. If the project-related components are not clearly stated, consultation with the Proponent is required prior to inclusion of information into the scope.

# **Project-Specific Component**

• Project-Specific Component: These components refer to items of note for project-specific activities (e.g., quarrying, research, drilling, etc.). The listed items of note may overlap with activities/details included as primary or project-related components; this is done to ensure certain details are scoped and are not overlooked.

Scope Components	<u>Dimensions to Consider</u>	Included in Scope	<u>Notes</u>
Location	What are the spatial boundaries of the project?  - Size of the project area and activity  - Accurate inclusion or exclusion of all project-related components  - Region in Nunavut  - Land use plan conformity — Consult NPC  - Proximity to communities/locations potentially impacted  - Transboundary considerations (e.g., NWT, MAN, QC, SASK)  - Wildlife and geophysical concerns with location of project  - Water bodies, calving, nesting, migration, historic/archaeological sites, sensitive landscapes, etc. — Consult GIS  - Inuit Owned Land, Crown Land, Municipal Land, National or Territorial Park, Wildlife Sanctuary, Bird Sanctuary, Marine Wildlife Area, SARA protected habitats/ranges, Caribou Protection Area, Protected Heritage Places or Rivers, etc. — Consult GIS  - Potential expansion or reduction of project area through its lifecycle		
Timing and Lifecycle	What are the temporal boundaries of the project?  Defined start and finish of proposed project as a whole and project components/activities (e.g., Summer/Winter, multi-year, seasonal)  Accurate inclusion or exclusion of project-related components  Potential extension or reduction of timelines through its lifecycle  Proposed timelines of all project components (e.g., pre-development studies, construction, operation, decommissioning, remediation, abandonment)  Project stage commitments (e.g., progressive reclamation vs. end of project reclamation)  Monitoring, sampling and reporting commitments associated with operational <u>and</u> end-of-life maintenance  Contingency planning (e.g., reasonable timelines to allow for delays due to weather, shipping schedules, travel cancellations)  Wildlife and geophysical concerns with <u>timing</u> of project  Water bodies, calving, nesting, migration, historic/archaeological sites, sensitive landscapes, etc. — Consult GIS		

	<ul> <li>Inuit Owned Land, Crown Land, Municipal Land, National or Territorial Park, Wildlife Sanctuary, Bird Sanctuary, Marine Wildlife Area, SARA protected habitat/Range, Caribou Protection Area, Protected Heritage Places or Rivers, etc. – Consult GIS</li> </ul>	
Waste Management	How are wastes being managed?  - Combustible and non-combustible wastes, greywater, sewage, waste fuel, waste chemicals  - Stored and transported for disposal (e.g., storage location/method, safety and location of disposal) (local, municipal, southern disposal facility)  - Incineration (e.g., method, location, safety)  - Burial (e.g., treatment method, location, safety)  - Contamination monitoring of waste storage locations  - Associated environment/wildlife plans (e.g., wildlife deterrence from storage facilities, waste leaching controls, water management)  - Communications required for municipal/special disposal facilities (e.g., communication between proponent and facility regarding volumes and material requiring disposal)	
Wildlife and Environmental Management	What wildlife management plans have been included?  - Temporal/spatial boundaries of the project and potential overlap with wildlife concerns/activities (e.g., calving/post-calving/migration areas, nesting areas, denning areas, fish habitats)  - Assessment of potential impacts from activities (e.g., monitoring/scientific studies, incorporation of IQ)  O Management plans associated with assessed impacts (e.g., ceasing activities periodically, monitoring programs, wildlife deterrence planning)  - Key habitat loss (amount, types, etc.)  O Potential Zone of Influence  - Refer to WMMP Template*	
Transportation	Will any activities require transportation?  - Mode of transportation for travel/access to project site and operations  - Air, ground vehicles, ATV/snowmobile, boat, cat train, etc. (record of numbers and types)  - Route (e.g., all-weather road/winter road, flight path, rivers and water bodies)  - Existing route use or construction and use (e.g., road, airstrip,	

	port, bridge, signage)	
	<ul> <li>Potential disturbance of watercourses, water bodies or</li> </ul>	
	wildlife habitats (e.g., crossings, embankments, specific	
	wildlife habitats)	
	<ul> <li>Seasonal considerations (e.g., thawing surface and/or</li> </ul>	
	permafrost, ice thickness)	
	<ul> <li>Frequency of transportation on travel/access routes (e.g., times per</li> </ul>	
	hour/day/week/month including project activities requiring	
	transportation)	
	- Transportation operations considerations (e.g., signage, low-level	
	flights, noise suppression, permafrost protection, dust and erosion	
	suppression, rutting and gouging management, maintenance,	
	temporary shutdown (wildlife))	
	<ul> <li>Fuel use and storage associated with transportation needs</li> </ul>	
	<ul> <li>Types and volumes</li> </ul>	
	<ul> <li>Containment method, transfer method</li> </ul>	
	<ul> <li>Fuel management plans (storage, spill response, etc.)</li> </ul>	
	- Site specific mitigation plans for potential impacts to sensitive areas	
	(e.g., soil and erosion management for winter roads during spring	
	season, water management, wildlife deterrence/impact mitigation	
	plans, permafrost protection, topographic/landscape considerations)	
	- Remediation of transportation-related infrastructure (e.g., closure and	
	remediation plans for roads, airstrips)	
Construction	M/III the a manage at increasing a grant month of a contract of a contra	
Construction	Will the project involve construction?	
Construction	- Components being constructed	
Construction		
Construction	<ul> <li>Components being constructed</li> <li>Temporary or permanent</li> <li>Construction timeline</li> </ul>	
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Chemical Storage	<ul> <li>Types of fuels/chemicals being used</li> <li>Volumes to be stored</li> <li>Storage method and containment (e.g., berms, location, safety)</li> <li>Intended use (include activities, volumes, etc.)</li> <li>Transfer methods</li> <li>Waste fuel, spill contingency, fuel management and emergency response plans</li> <li>Storage and transfer locations         <ul> <li>Proximity to water bodies</li> </ul> </li> <li>Remediation of fuel/chemical storage sites</li> </ul>	
Camp or Accommodations	Will the project require a camp?  - Camp structures (permanent or temporary)  - Camp location and duration of use  - Proximity of camp to water bodies  - Power generation for camp  - Types and amounts of waste generated (e.g., grey water, sewage, waste/garbage)  - Waste management plan (e.g., bagging, incineration, burial, treatment, sump)  - Wildlife deterrence/impact mitigation plans  - Remediation of camp site (remediation plans)	
Marine-based Activities	Will project activities be conducted on or near marine water?  - Duration/frequency of marine-based activities  - Assessment of project activities overlap with sensitive habitats or traditional land-use areas  - Associated impact mitigation plans  - Specific fuel and chemical management plans  - Waste management plans  - Combustible and non-combustible wastes (e.g., what is stored onboard, scheduled disposal in communities during stops)  - Greywater and sewage (e.g., what is stored onboard and treated, scheduled disposal in communities)  - Fuel and chemicals (e.g., stored onboard and disposed of during scheduled community stops)  - Use of buoys (for data collection, navigation, etc.)  - Free floating or tied down  - Duration of deployment and clean-up plans  - Wildlife protection measures  - Seismic activities  - Operational considerations (season, safety zones, etc.)	

	<ul> <li>Number of profiles (study zones/shot lines)</li> <li>Equipment to be deployed/used (duration, depths, etc.)</li> <li>In-water infrastructure         <ul> <li>Duration of deployment and clean-up plans</li> <li>Wildlife protection measures</li> </ul> </li> <li>Operational and wildlife management plans including safe zones to allow for activities to commence/resume</li> <li>Ice-breaking activities         <ul> <li>Seasonal or year-round</li> </ul> </li> <li>Mitigation plans in place for potential impacts to marine areas</li> </ul>	
Water Use	Will the project be using water?  - Activities that will use water (e.g. drilling activities, camp, winter road, dust suppression)  - Water use (e.g., volume per day, extraction method, disposal plans)  - Extraction location and method (river/lake bodies, mesh-screen pipe, etc.)  - Summer and/or winter extraction  - Wastewater management (e.g., water management plans, drill waste management plans, tailings management plans)	
Aerial Surveys	Does the project involve aerial surveys?  - Type of aircraft being used  - Flight plan (duration, location, altitudes, etc.)  - Project overlap with areas of concern (sensitive wildlife areas, communities, etc.)  - Associated management plans (low-flying procedures, caribou, raptor and other wildlife avoidance plans, etc.)	
Public Participation	Does the project include public participation?  Community consultation sessions before, during and following project (knowledge-sharing, demonstrating public input and consideration for project decisions, presentation of data, annual reports/information sessions, follow-up commitments, etc.)  Incorporation of IQ in project-related decision making (impact assessment, design plans, management plans, monitoring plans, closure plans etc.)  Hiring of local workers for project components	
Monitoring and Reporting	Will the project include monitoring and reporting components?  - Type of monitoring and/or report  O Wildlife monitoring and mitigation plan (WMMP)  O Aquatics monitoring and mitigation plan (AEMP)  O Air Quality monitoring and mitigation plan (AQMP)	

	<ul> <li>Abandonment and restoration plan</li> <li>Annual report (summary of activities, WMMP, compliance review of project, etc.)</li> <li>Archaeological report</li> <li>Waste management reports (transportation logs, disposal reports on-site and from approved facilities, etc.)</li> <li>Fuel and chemical storage reports (incidents, remediation, volumes, transfers, etc.)</li> </ul>	
Drilling and Exploration	Do project activities involve drilling?  - Location of drilling  - Land, ice or both  - Type of drill fluids used (calcium chloride, water, etc.)  - Drill Plan (type of mineral being explored, radioactive materials, drill sites, depths, methods, etc.)  - Water use (e.g., volumes, location, methods and disposal)  - Stripping and trenching activities (sediment/erosion control, overburden/topsoil management and remediation, blast trench water management, etc.)  - Drill waste management (drill fluids/muds, radioactive substances, chemicals/fuel, etc.)  - Core storage (special consideration for radioactive materials including methods and transportation off-site)  - Equipment and personnel transportation (method, routes, frequency, etc.)  - Wildlife impact mitigation plans (specific to project activities and components)  - Restoration and abandonment of project site (including all activities and components of project, seasonal vs. final remediation plans)	
Research	Is the project conducting research activities?  - Type of research and operations required (e.g., surveys, wildlife studies, sampling, observation)  - Number, size, location of proposed research sites  - Equipment needed (e.g., transportation, instrumentation, camp)  - Remediation of sites used for research or project activities  - Wildlife and environmental impact mitigation plans (specific to project activities and components)  - Results and destination of research findings (institution/organization analyzing data, sharing with local community, GN, academic/industry publishing, local benefit, etc.)  - Licencing/permitting required for specific activities  - Shipment of samples	

Quarrying	Does the project involve quarrying activities?  - Quarry boundaries clearly staked (new or existing quarry)  - Volume of extraction (size of proposed pits)  - Processing operations (processing rates, location of screening and crushing equipment, etc.)  - Proximity and potential impacts to nearby features clearly addressed  - Drainage/flood plans and water management plans (diversion channels, buffer zones, silt screens, high water mark and natural drainage considerations, etc.)  - Dust suppression and erosion management plans  - Term of operation and site closure/remediation plans (should include indication of future activities including future re-filling, re-contouring, etc.)  - Access to quarry site (e.g., use of existing access road, new road construction)  - Transportation of material  • Frequency/distance of travel, routes, volumes transported	
Landfills	Will the project include landfill operations?  - Landfill boundaries clearly defined  - Location in relation to water bodies  - Containment plans (material-specific disposal for hazardous/non-hazardous wastes, berms)  - Dust suppression  - Wildlife management/deterrence plans  - Monitoring and sampling program (reports)  - Leachate management  - Remediation plans/end-of-life management (monitoring, capping, site-specific remediation concerns, etc.)	
Landfarms	Will the project include a landfarm?  - Landfarm boundaries clearly defined	
Cruise Ship Activities	Does the project involve cruise ship tourism/activities?  - Travel route (sail plan including timing, scheduled stops, total duration of sail)  O Community contact prior to scheduled stops	

	<ul> <li>Appropriate permits have been applied for (Canadian Wildlife Service Bird Sanctuary Permit, National Wildlife Area Entry Permit, Parks Canada Entry Permit, Access to IOL, etc.)</li> <li>Size of vessel (length, number of passengers, etc.)</li> <li>Use of smaller vessel(s) for to access land based activities and/or use of smaller vessels for marine based activities (sightseeing tours)</li> <li>Waste management plan         <ul> <li>Combustible and non-combustible wastes (stored onboard, scheduled disposal in communities during stops, etc.)</li> <li>Greywater and sewage (stored onboard and treated, disposal at sea, etc.)</li> <li>Fuel and chemicals (scheduled community stops for refuelling)</li> </ul> </li> <li>Wildlife management plans         <ul> <li>During cruise operations</li> <li>During scheduled stops</li> </ul> </li> </ul>	
Pipelines	Will the project involve pipeline construction?  - Equipment required for construction  - Pipeline details  - Type of pipeline (diameter, insulated/non-insulated, suspended/ground pipe, etc.)  - Volume of material transported (daily, yearly, seasonally, etc.)  - Location of pipeline (wildlife, geophysical and social concerns)  - Environmental and operational management plans associated with pipeline and areas of concern (spill management, wildlife management plans, permafrost impacts assessment, signage, etc.)  - Monitoring and reporting programs (annual reports, wildlife observations, etc.)  - Decommissioning, remediation and abandonment plans	
Tourism and Outfitting Operations	Will the project involve tourism and outfitting operations?  - Location of lodging facility or camp  O Proximity to know heritage areas  - Tourism activities to be undertaken (wildlife viewing, hiking, skiing, snowmobiling, boating. etc.)  O Wildlife Mitigation and Monitoring Plan  - Equipment required for operations and for infrastructure  O Upgrades and mobilization  - Transportation and disposal of waste and dangerous goods  O Fuel and Waste Management Plans  - Type of authorizations of reports required (Caribou Viewing Authorization, Heritage Resource Impact Assessment Report, Fishing	

Licence, Outfitting Licence, Camp Abandonment and Restoration Plans, etc.)  - Consultation with affected communities  O Local hiring	

NOTE: The screening criteria for minor screening is inclusive and should be completed fully before making a determination of a minor screening by

the MIA and TA.

	Criteria Question	Location of Information	Meets Criteria	Does not Meet Criteria	Terms and Conditions to be applied to Minor Screening	Additional Notes
1	Was the proposal forwarded to the NIRB under s. 80(1) of the <i>NuPPAA</i> by NPC (i.e., NPC noted concerns regarding cumulative effects when referring the proposal for screening)	GIS (include all projects within watershed and migration routes)	N	Y		
2a	Does the Proponent intend to establish a non-permanent (temporary) campsite?	Online application	Y (go to 2b)	N (go to 3a)		
2b	If YES, will the campsite be used for less than 400 person-days/year?	Online application	Y	N (go to 2c)	STND - temporary camp	
2c	Does the Proponent intend to work in multiple areas, setting up a temporary camp(s) as they go and each is for less than 100 persondays?	Online application	Y	N	STND - temporary camp	To qualify, the proponent should not be attempting to set up camp(s) near each other to avoid dealing with AANDC or NIRB
3a	Does the Proponent intend to establish any permanent cabin/structure(s)?	Online application	N (go to 4a)	Y (go to 3b)		
3b	If YES, is the permanent cabin/structure(s) for recreational purposes or safety reasons?	Online application	Y	N	STND - camp and land use	
4a	Does the Proponent intend to establish or install any permanent structure(s) that is not a cabin or building?	Online application	N (go to 5)	Y (go to 4b)		
4b	If YES, is the structure for scientific purposes (e.g., weather station, solar panels)?	Online application	Y	N	STND - migratory birds and wildlife disturbance	
5	Does the Proponent intend to conduct seismic or sonic activities?	Online application	N	Υ		
6	Does the Project involve quarrying activity?	Online application	N	Υ		
7	Does the Project involve drilling activities?	Online application	N	Υ		
8a	Will the project activities involve the removal of vegetation, scarring of the land, excavation or substantial earthworks?	Online application	N	Y (go to 8b)		
8b	If YES, is the removal of vegetation for scientific purposes?	Online application	Y (see note)	N		The Proponent will require a GN-Wildlife research permit and/or export permit (flora and fauna) and TA should request for a copy of the application from Proponent
9a	Is there any wildlife harvesting associated with the project?	Online application	N	Y (go to 9b)		
9b	If YES, is the harvesting associated with research activities?	Online application	Y (see note)	Ν	STND - terms and conditions re: wildlife	The Proponent must contact CWS for a Wildlife-Take Permit and the GN for a Wildlife research permit and/or export permit ( wildlife include terrestrial, aquatic, avian, amphibian ).
10	Will the Proponent be constructing a landing strip?	Online application	N	Υ		
11	Is the Proponent removing all garbage, and/or incinerating all combustible wastes and removing non-combustible wastes, including the ash from incineration?		Y (see note)	N	STND - waste storage, incineration and removal	Proponent must contact NWB to determine if a licence is required to deposit wastes.

	Criteria Question	Location of Information	Meets Criteria	Does not Meet Criteria	Terms and Conditions to be applied to Minor Screening	Additional Notes
12a	Is the Proponent using less than 300 cubic metres of water per day?	Online application	Y (see note)	N (go to 12b)		Proponent must contact NWB to determine if a licence is required for the use of water
12b	Has the Proponent applied for a Type A water license from the Nunavut Water Board, or require a NWB Hearing?	Online application	N	Υ		
13	Is the Proponent storing <b>less than</b> 80,000L of fuel in multiple containers, or have a single fuel container of capacity <b>less than</b> 4,000L? (see note)	Online application	Y	N	STND - fuel storage measures	If there is more than 80,000L in total stored in multiple containers or one container exceeding 4,000L it does not meet criteria.
14	Is Proponent generating power via hydroelectric means or via nuclear power?	Online application	N	Υ		
15	Does the project involve aerial surveys, use of unmanned drones or filming activities for non-wildlife research purposes only?	Online application	Y	N	STND - Flight altitude, wildlife considerations, migratory birds, SARA monitoring considerations	Aerial surveys, use of unmanned drones or filming activities qualify as minor screening only for non-wildlife surveys. Discuss with MIA.
16a	Does the project involve mechanised air or water transportation (helicopters, planes, zodiacs, boats)?	Online application	N	Y(go to 16b)		
16b	Is the mechanised <u>air</u> transportation limited to pick ups and drop offs only? (see note)	Online application	Y	N (go to 16c)		Pick ups and drop offs can include movement from one camp to another or from one research location to another.
16c	Is the mechanised <u>water</u> transportation limited to pick ups and drop offs only? (see note)	Online application	Y	N (go to 16d)		Pick ups and drop offs can include movement from one camp to another or from one research location to another.
16d	Is the water transportation limited to sailing vessels (motorized, sail or cruise) transiting through the Northwest Passage for tourist activities or research-based activities only?	Online application	Y (discuss with MIA)	N		
17	Is the Project using construction vehicles?	Online application	N	Υ		
18a	Is the project location outside of calving and post-calving areas?	GIS	Υ	N (go to 18b)		
18b	If NO, is the purpose of the activities tourist or research-based in nature.	Online application	Y	N	STND - wildlife considerations, temporary camp	
19a	Is the project location outside of areas where known Schedule 1 Species at Risk?	GIS	Υ	N (go to 19b)	·	
19b	If NO, are the project activities specifically directed at Species at Risk, such as conducting research on the species?	Online application	Y	N	EC-developed Terms and Conditions related to monitoring of Species at Risk	
20a	Are the Project activities outside of known historical sites, historical rivers, proposed Special Management Areas, Migratory Bird Sanctuaries, National Wildlife Areas or Territorial Parks?	GIS	Y	N (go to 20b)		
20b	If NO, is the purpose of the activities tourist or research-based in nature.	Online application	Υ	N	STND - wildlife considerations, temporary camp	
21	Are the Project activities outside of known travel routes, hunting areas, and traditional camp locations?	GIS	Y	N		

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22	Are the Project activities outside of Manitoba Denesuline, Saskatchewan Denesuline, Contwoyto Lake Lands, Northwest Territories and Nunavik areas of influence?	GIS	Y	N		
23	Is the Project located in a watershed which is fully contained within the Nunavut Settlement Area?	GIS	Υ	N		
24	Will the Project disturb any known archaeological sites?	GIS/Online application	N	Υ	STND-CH Terms and Conditions	



# PART 1 FORM PROJECT PROPOSAL INFORMATION REQUIREMENTS

To access NIRB documents, project screenings, and project reviews please visit the Nunavut Impact Review Board's ftp site <a href="http://ftp.nirb.ca/">http://ftp.nirb.ca/</a>. The NIRB's website (<a href="www.nirb.ca">www.nirb.ca</a>) is currently under construction. Please contact <a href="mailto:info@nirb.ca">info@nirb.ca</a> should you have any questions or require further information.

#### **IMPORTANT!**

Please be advised that your application will not be processed until the Sections 1 - 9 are completed in their entirety, in both English and Inuktitut (+ Inuinnagtun, if in the Kitikmeot).

	SECTION 1: APPL	ICANT INFORMATION
1.	Project Name	
2.	Applicant's full name and mailing address	:
		Phone: Fax: Email:
3.	Primary contact's full name and mailing ac	ddress:
		Phone:
		Fax:
	-	Email:
	SECTION 2: AUTH	IORIZATION NEEDED
1.	Indicate <u>all</u> authorizations associated with t	he project proposal:
I	Regional Inuit Association (RIA)	Canadian Launch Safety (CLS)
_	Nunavut Water Board (NWB)	Canadian Wildlife Service (CWS)
	Nunavut Planning Commission (NPC)	Department of National Defense (DND)
(	Government of Nunavut (GN)	Environment Canada (EC)
(	Community Government & Services (CG&S)	Fisheries and Oceans Canada (DFO)
(	Culture and Heritage (CH)	Parks Canada (PC)
I	Nunavut Research Institute (NRI)	Hamlet
	Aboriginal Affairs and Northern Development Canada (AANDC)	Other (please specify):
2.	List the <u>active</u> permits, licenses, or other a their expiry date(s):	authorizations related to the project proposal, and
	-	



3.	List the <u>pending</u> * permits, licenses,	or other a	uthori	zations related to the project propo	sal:
*Ple	ease provide a copy of all applications to the	NIRB.			
4.	Has this project or <u>any components</u> NIRB?	of this pro	ject b	een previously screened or reviewe	d by
	☐ YES			□ NO	
	If YES, indicate the previous project	name and	NIRB	File No.	
	SECTION 3: PRO	JECT PR	OPO	SAL DESCRIPTION	
1.	Indicate the type of project proposal (See Appendix A for Project Type De		that a	pply) <sup>(1,2)</sup> :	
1	1 All-Weather Road/Access Trail		9	Site Cleanup/Remediation	
2	Winter Road/ Winter Trail		10	Oil and Natural Gas Exploration/Activities	
3	Mineral Exploration		11	Marine Based Activities	
4	4 Advanced Mineral Exploration		12	Scientific/International Polar Year Research*	
5	Mine Development /Bulk Sampling		13	Harvesting Activities*	
6	6 Pits and quarries		14	Tourism Activities*	
7	Offshore Infrastructure (port, break wa dock)	iter,	15	Other <sup>(2)</sup> :	
8	8 Seismic Survey				
Plea	ase note:	I I		1	1
	<del></del>				

- 1. All project types listed above, except those marked with an asterisk (\*), will also require the Proponent to submit a **Part 2 Project Specific Information Requirement (PSIR) Form**. The NIRB application process will not be considered complete without the Part 2 PSIR Form.
- 2. Please be advised that in order to complete the NIRB process, the NIRB may request additional information at any time during the process.
- 3. If "Other" is selected, contact NIRB for direction on whether a Part 2 PSIR Form is required.



Base Metals (zinc	c, copper, go	old, silver, etc)			
Diamonds		. —			
Uranium					
Other:					
				elete the table and qu	uestions below.
Transportation Ty	/pe	Quantity	Prop	posed Use	Length of Use
E.g. Helicopter		1	Site to site pi	ck ups and drop offs	6 days
Describe any dool	ke niare	air etrine or re	alated structures	that are to be used in	conjunction with the
				new structures may re	
proposed project	activities.	i lease flote	s. the building of t	iew structures may re	quile a r art 2 r oirii.
c If a temporary car	nn site is t	to he establis	shed describe the	e proposed structures	in detail and indicate
					in detail and indicate
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<b>6c.</b> Discuss the history of th	ne site if it has been used for any project activities in the past.
<b>6d.</b> Indicate if there are any	known archaeological/palaeontological historical sites in the area.
7. Land Status (check all that	t applies):
Crown Inuit Owned Surface La	Commissioners' Municipal nds Inuit Owned Sub-Surface Lands
8a. Co-ordinates:	
Min Lat (degree/minute)  Max Lat (degree/minute)	Min Long (degree/minute)  Max Long (degree/minute)
NTS Map Sheet No: (Please ensure that maps of the pr Resources Canada)	oject are attached (1:50,000 <b>if available</b> , 1:250, 000 <b>Mandatory</b> ) available from Natural
8b. If the project proposal in	cludes a <b>camp</b> , please provide the coordinates of the camp location
Min Lat (degree/minute)	Min Long (degree/minute)
Max Lat (degree/minute)	Max Long (degree/minute)
If different from above for NTS Map Sheet No: Please ensure that maps of the pro	or the camp:  oject are attached (1:50,000 <b>if available</b> , 1:250, 000 <b>Mandatory</b> ) available from Natural

Please note that additional location information may be required in a subsequent Project Specific Information Requirement (PSIR) submission. This may take the form of a digital Geographic Information Systems (GIS) file.

#### **SECTION 4: NON-TECHNICAL PROJECT PROPOSAL DESCRIPTION**

Please include a non-technical description of the project proposal, no more than 500 words, in English and Inuktitut (+Inuinnaqtun, if in the Kitikmeot). The project description should outline the following:

- The project activities, their necessity and duration;
- Method of transportation;
- Any structures that will be erected (permanent/ temporary);
- Alternatives considered; and
- Long-term developments, the projected outcome of the development for the area and its timeline.

<u>IMPORTANT:</u> If the proposed activities require submission of a NIRB Part 2 PSIR Form, please complete Section 8 only, otherwise continue on with Section 5.



#### **SECTION 5: MATERIAL USE**

1. List equipment to be used (including drills, pumps, aircraft, vehicles, etc.):

Equipment type and nu	ımher	Size – dimensions	<u> </u>	Proposed use
Equipment type and no	imber	Size – dimensions	•	Proposed use
2a. Detail fuel and hazar	dous material us	e:		
Fuel	Number of Containers and Capacity of Containers	Total Amount of Fuel (in Litres)	Propo	sed Storage Methods
Diesel				
Gasoline				
Aviation fuel				
Propane				
Other				
Hazardous Materials and Chemicals		Total Amount of Hazardous Materials and Chemicals (in Litres)		
2b. Describe the propos	ed Spill Prevention	on Plan.		
3a. Detail the anticipated				
Daily amount (m³)		ater retrieval hods	Propose	d water retrieval location
3b. Have you applied for	r a water License	* with the Nunavut	Water Board	1?
□ <b>Y</b>	ES			□ NO
If yes, what class of	licence?			
□ <b>C</b>	lass A Water Lice		□ Class B Water Licence	
Please provide a copy of the	e application or licen	ce to the NIRB.		



#### **SECTION 6: WASTE DISPOSAL AND TREATMENT METHODS**

1. List the types of waste associated with the proposed project activities:

Type of waste	Projected amount generated	Method of Disposal	Additional treatment procedures									
Sewage (human waste)			•									
Greywater												
Combustible wastes												
Non-Combustible wastes												
Overburden (organic soil,												
waste material, tailings)												
Hazardous waste												
Other:												
2. Describe the proposed Waste Management Plan.												
SECTION 7:	COMMUNITY INVOL	VEMENT & REGIONA	L BENEFITS									
List the community r meetings if available		been contacted and prov	ride the minutes of the									
Community	Name	Organization	Date Contacted									
	SECTION 8: GENE	ERAL QUESTIONS										
1. Will you be disturbing	g any known archaeolog	ical sites?										
□ <b>Y</b>	ES		NO									
		_										
	SECTION 9: APPLI	CANT SIGNATURE										
Please sign and date you	ur application:											
Signature	Title		Date									



# APPENDIX A Project Type Definitions

- **Access Trail**: A project proposal with the objective of providing vehicular access to an area of interest involving minimal alteration to the terrain.
- **Advanced Exploration:** A project proposal with the objective of identifying size, grade, and physical characteristics of a mineral occurrence and to assess the economic and technical feasibility of developing the mineral deposit into a producing mine
- **All-Weather Road:** A project proposal with the objective of road construction for use in all seasons.
- **Bulk Sampling:** A project proposal with the objective of extracting of large samples of mineralized material involving hundreds to thousands of tonnes. Samples are selected as representative of the potential mineral deposit being sampled. May involve crushing/milling (on small-scale)
- **Harvesting activities:** A project proposal with the objective of harvesting animals, marine mammals and/or fish from their natural habitats by means of hunting or trapping for traditional and commercial use.
- **Marine Based Activities:** Any activity occurring in the marine environment, such as vessel use associated with land-based activities or disposal at sea.
  - \*Please note that normal community re-supply or individual ship movements not associated with land-based project proposals shall not be screened by NIRB (Section 12.12.2 of NLCA).
- **Mine Development:** A project proposal with the objective of extracting broken rock with mineralization of sufficient grade and tonnage to sustain commercial mining operations (ore). Mining a body of ore can be achieved by either open pit and/or underground development. Mine development may involve milling. Milling involves treatment of the extracted ore through a combination of mechanical and chemical processes to selectively recover the valuable mineral.
- **Mineral Exploration:** A project proposal with the objective of exploring an area to find geological anomalies. It involves site reconnaissance (ground and/or air) to locate broad and fiscal mineral deposits.
- **Offshore Infrastructure:** A project proposal with the objective of building off loading facilities constructed off the shoreline and connected to the mainland of the marine or freshwater environment. Examples include a jetty, dock, or port facility.
- **Oil and Gas Exploration/Activities:** A project proposal that includes 1) exploration, such as seismic or geological mapping, 2) drilling of oil and gas wells, 3) construction and operation of a pipeline, a gas processing plant or any oil and gas facility within Nunavut.
- **Pits and Quarries:** A project proposal with the objective of pitting, which involves the extraction of granular material (i.e. sands and gravels) and quarrying, which involves the removal of consolidated rock (i.e. bedrock, frozen soil).
- **Scientific Research:** A project proposal with the objective of implementing a series of site activities comprised of observation of phenomena, measurement and collection of data necessary for scientific investigation in designated areas within a limited time period.
- **Seismic Survey:** A project proposal with the objective of conducting a survey to map the depths and contours of rock strata by timing the reflections of sound waves released from the surface. Survey site locations may be offshore (not within 12 nautical miles of any coast), near shore, and extended onshore.
- **Site Cleanups:** A project proposal with the objective of site cleanups (includes DEW line site cleanups), which focuses on the remediation of chemically contaminated soils, stabilization of landfills and dumps, demolition/disposal of infrastructure and debris and monitoring after cleanup is completed.



- **Tourism Activity:** A project proposal with the objective of conducting travel predominantly for recreational, sport or leisure purposes within a designated area and limited time period.
- **Winter Road:** A project proposal with the objective of building a road for winter use by leveling and compacting surface snow and ice. Winter road is removed at end of season.
- **Winter Trail:** A project proposal with the objective of building a trail for winter use by a single pass of a tracked vehicle using a blade, if necessary.



#### **SCREENING PART 2 FORM** PROJECT SPECIFIC INFORMATION REQUIREMENTS (PSIR)

#### 1. SUBMISSIONS

The Proponent must submit all information pertaining to the Project as a whole. The information requirements below are designed for the purpose of environmental assessment and are not limited to the scope of a single permit or license application.

**IMPORTANT:** Please be advised of the following:

- NIRB does not accept references to an ftp or web sites as a submission.
- 2. The Proponent must provide NIRB with 1 (one) electronic copy and 1 (one) hardcopy of the required information in English.
- 3. All maps should be shapefiles, be legible, and should include grids, be of appropriate scale, indicate the scale, include latitude and longitude references, NTS Maps numbers, title, legend and a north arrow. To the extent possible, avoid hand-drawn demarcations and faxed maps; and,
- 4. Please complete all required information in each section below. If the required information is not applicable to the project proposal, please indicate this in the response with "n/a". If the request has been provided in a different section or report, please note the section or report where the response can be found.

#### 2. GENERAL PROJECT INFORMATION REQUIREMENTS

#### **Project Coordinates and Maps**

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- 1. The preferred method for submitting project coordinates information is through the use of a Geographic Information System (GIS) compatible digital file. Although an ESRI ArcView 3.x shape file (in decimal degrees) is the preferred interchange format, the NIRB has the capacity to receive over 100 GIS and CAD related formats, including MapInfo and AutoCAD, provided proper format and projection metadata is also submitted. The NIRB requires coordinates for the project proposal which reflect the entire project area as defined by:
  - Area/sites of investigation;
  - Boundaries of the foreseen land use permit/right-of-way area(s) to be applied for;
  - Location of any proposed infrastructure or activity(s); and,

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- Boundaries of the mineral claim block(s) where proposed activities will be undertaken.
- 2. Map of the project site within a regional context indicating the distance to the closest communities.
- 3. Map of any camp site including locations of camp facilities.
- 4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.

#### **Project General Information**

- 5. Discuss the need and purpose of the proposed project.
- 6. Discuss alternatives to the project and alternative methods of carrying out the project, including the no-go alternative. Provide justification for the chosen option(s).
- 7. Provide a schedule for all project activities.
- 8. List the acts, regulations and guidelines that apply to project activities.
- 9. List the approvals, permits and licenses required to conduct the project.

#### **DFO Operational Statement (OS) Conformity**

- 10. Indicate whether any of the following Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the project proposal:
  - Bridge Maintenance
  - Clear Span Bridge
  - Culvert Maintenance
  - Ice Bridge
  - Routine Maintenance Dredging
  - Installation of Moorings

Please see DFO's OS for specific definitions of these activities available from DFO's web-site at http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/index-eng.htm

11. If any of the DFO's OS apply to the project proposal, does the Proponent agree to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable OS? If yes, provide a signed statement of confirmation.

#### **Transportation**

- 12. Describe how the project site will be accessed and how supplies will be brought to site. Provide a map showing access route(s).
- 13. If a previous airstrip is being used, provide a description of the type of airstrip (ice-strip/all-weather), including its location. Describe dust management procedures (if applicable) and provide a map showing location of airstrip.
- 14. If an airstrip is being constructed, provide the following information:
  - a. Discuss design considerations for permafrost
  - b. Discuss construction techniques
  - c. Describe the construction materials, type and sources, and the acid rock drainage (ARD) and metal leaching (ML) characteristics (if rock material is required for airstrip bed).
  - d. Describe dust management procedures.
  - e. Provide a map showing location of proposed airstrip.
- 15. Describe expected flight altitudes, frequency of flights and anticipated flight routes.

#### **Camp Site**

16. Describe all existing and proposed camp structures and infrastructure

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- 17. Describe the type of camp:
  - a. Mobile
  - b. Temporary
  - c. Seasonal
  - d. Permanent
  - e. Other
- 18. Describe the maximum number of personnel expected on site, including the timing for those personnel involved with the project.

#### **Equipment**

- 19. Provide a list of equipment required for the project and discuss the uses for the equipment.
- 20. If possible, provide digital photos of equipment.

#### Water

- 21. Describe the location of water source(s), the water intake methods, and all methods employed to prevent fish entrapment. Provide a map showing the water intake locations.
- 22. Describe the estimated rate of water consumption (m³/day).
- 23. Describe how waste water will be managed. If relevant, provide detail regarding location of sumps, including capacity of sumps and monitoring.
- 24. If applicable, discuss how surface water and underground water will be managed and monitored.

#### Waste Water (Grey water, Sewage, Other)

- 25. Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):
  - Sewage
  - Camp grey water
  - Combustible solid waste
  - Non-combustible solid waste, including bulky items/scrap metal
  - Hazardous waste or oil
  - Contaminated soils/snow
  - Empty barrels/ fuel drums
  - Any other waste produced
- 26. If the project proposal includes a landfill or landfarm, indicate the locations on a map, provide the conceptual design parameters, and discuss waste management and contact-water management procedures.

#### Fuel

- 27. Describe the types of fuel, quantities (number of containers, type of containers and capacity of containers), method of storage and containment. Indicate the location on a map where fuel is to be stored, and method of transportation of fuel to project site.
- 28. Describe any secondary containment measures to be employed, including the type of material or system used. If no secondary containment is to be employed, please provide justification.
- 29. Describe the method of fuel transfer and the method of refuelling.
- 30. Describe spill control measures in place.

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Please refer to Environment Canada's fuel storage tank system regulations (*Storage Tank System for Petroleum and Allied Petroleum Products*) website at <a href="http://www.ec.gc.ca/st-rs/">http://www.ec.gc.ca/st-rs/</a> for details on fuel storage requirements.

#### Chemicals and Hazardous Materials\*

\*included but not limited to oils, greases, drill mud, antifreeze, calcium or sodium chloride salt, lead acid batteries and cleaners

- 31. Describe the types, quantities (number of containers, the type of container and capacity of containers), method of storage and containment. Indicate the location on a map where material is to be stored, and method of transportation of materials to project site.
- 32. Describe any secondary containment measures to be employed, including the type of material or system used.
- 33. Describe the method of chemical transfer.
- 34. Describe spill control measures in place.

#### **Workforce and Human Resources/Socio-Economic Impacts**

- 35. Discuss opportunities for training and employment of local Inuit beneficiaries.
- 36. Discuss workforce mobilization and schedule, including the duration of work and rotation length, and the transportation of workers to site.
- 37. Discuss, where relevant, any specific hiring policies for Inuit beneficiaries.

#### **Public Involvement/ Traditional Knowledge**

- 38. Indicate which communities, groups, or organizations would be affected by this project proposal.
- 39. Describe any consultation with interested Parties which has occurred regarding the development of the project proposal.
- 40. Provide a summary of public involvement measures, a summary of concerns expressed, and strategies employed to address any concerns.
- 41. Describe how traditional knowledge was obtained, and how it has been integrated into the project.
- 42. Discuss future consultation plans.

#### 3. PROJECT SPECIFIC INFORMATION

The following table identifies the project types identified in Section 3 of the NIRB, Part 1 Form. Please complete all relevant sections.

It is the proponent's responsibility to review all sections in addition to the required sections to ensure a complete application form.

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**Table 1: Project Type and Information Required** 

Project Type	Type of Project Proposal	Information Request
1	All-Weather Road/Access Trail	Section A-1 and Section A-2
2	Winter Road/Winter Trail	Section A-1 and Section A-3
3	Mineral Exploration	Section B-1 through Section B-4
4	Advanced Mineral Exploration	Section B-1 through Section B-8
5	Mine Development/Bulk Sampling	Section B-1 through Section B-12
6	Pits and Quarries	Section C
7	Offshore Infrastructure(port, break water, dock)	Section D
8	Seismic Survey	Section E
9	Site Cleanup/Remediation	Section F
10	Oil and Natural Gas Exploration/Activities	Section B-3 and Section G
11	Marine Based Activities	Section H
12	Municipal and Industrial Development	Section I

#### SECTION A: Roads/Trails

#### A-1. Project Information

- 1. Describe any field investigations and the results of field investigations used in selecting the proposed route (e.g. geotechnical, snow pack)
- 2. Provide a conceptual plan of the road, including example road cross-sections and water crossings.
- 3. Discuss the type and volume of traffic using the road/trail (i.e. type of vehicles and cargo and number of trips annually).
- 4. Discuss public access to the road.
- 5. Describe maintenance procedures.
- 6. Describe whether any portion of the road will be located outside of the Nunavut Settlement Area and whether any other regulatory requirements must be met (e.g. CEAA).

#### A-2. All-Weather Road/Access Trail

- 7. Discuss road design considerations for permafrost.
- 8. Describe the construction materials (type and sources for materials), and the acid rock drainage (ARD) and metal leaching characteristics of the construction materials.
- 9. Discuss construction techniques, including timing for construction activities.
- 10. Indicate on a map the locations of designated refuelling areas, water crossings, culverts, and quarries/borrow sources.
- 11. Identify the proposed traffic speed and measures employed to ensure public safety.
- 12. Describe dust management procedures.

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#### A-3. Winter Road/Trail

- 13. Describe the surface preparation, including the use of snow berms or compaction, and any flooding. If flooding is to be used, provide the location of the water source on a
- 14. Describe the operating time period.
- 15. Identify the proposed traffic speed and measures employed to ensure public safety.
- 16. Discuss whether the selected route traverses any fish-bearing water bodies.

#### **SECTION B: Mineral Exploration /Advanced Exploration /Development**

#### **B-1. Project Information**

1. Describe the type of mineral resource under exploration.

#### **B-2. Exploration Activity**

- 2. Indicate the type of exploration activity:
  - Bulk Sampling (underground or other)
  - Stripping (mining shallow bedded mineral deposits in which the overlying material is stripped off, the mineral removed and the overburden replaced)
  - Trenching
  - Pittina
  - Delineation drilling
  - Preliminary Delineation drilling
  - Exploration drilling
  - Geophysical work (indicate ground and/or air)
  - Other
- 3. Describe the exploration activities associated with this project:
  - Satellite remote sensing
  - Aircraft remote sensing
  - Soil sampling
  - Sediment sampling
  - On land drilling (indicate drill type)
  - On ice drilling (indicate drill type)
  - Water based drilling (indicate drill type)
  - Overburden removal
  - Explosives transportation and storage
  - Work within navigable waters
  - On site sample processing
  - Off site sample processing
  - Waste rock storage
  - Ore storage
  - Tailings disposal
  - Portal and underground ramp construction
  - Landfilling
  - Landfarming
  - Other

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#### **B-3.** Geosciences

- 4. Indicate the geophysical operation type:
  - a. Seismic (please complete Section E)
  - b. Magnetic
  - c. Gravimetric
  - d. Electromagnetic
  - e. Other (specify)
- 5. Indicate the geological operation type:
  - a. Geological Mapping
  - b. Aerial Photography
  - c. Geotechnical Survey
  - d. Ground Penetrating Survey
  - e. Other (specify)
- 6. Indicate on a map the boundary subject to air and/or ground geophysical work.
- 7. Provide flight altitudes and locations where flight altitudes will be below 610m.

#### **B-4.** Drilling

- 8. Provide the number of drill holes and depths (provide estimates and maximums where possible).
- 9. Discuss any drill additives to be used.
- 10. Describe method for dealing with drill cuttings.
- 11. Describe method for dealing with drill water.
- 12. Describe how drill equipment will be mobilized.
- 13. Describe how drill holes will be abandoned.
- 14. If project proposal involves uranium exploration drilling, discuss the potential for radiation exposure and radiation protection measures. Please refer to the *Canadian Guidelines for Naturally Occurring Radioactive Materials* for more information.

#### **B-5. Stripping/ Trenching/ Pit Excavation**

- 15. Discuss methods employed. (i.e. mechanical, manual, hydraulic, blasting, other)
- 16. Describe expected dimensions of excavation(s) including depth(s).
- 17. Indicate the locations on a map.
- 18. Discuss the expected volume material to be removed.
- 19. Discuss methods used to determine acid rock drainage (ARD) and metal leaching potential and results.

#### **B-6. Underground Activities**

- 20. Describe underground access.
- 21. Describe underground workings and provide a conceptual plan.
- 22. Show location of underground workings on a map.
- 23. Describe ventilation system.
- 24. Describe the method for dealing with ground ice, groundwater and mine water when encountered.
- 25. Provide a Mine Rescue Plan.

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#### B-7. Waste Rock Storage and Tailings Disposal

- 26. Indicate on a map the location and conceptual design of waste rock storage piles and tailings disposal facility.
- 27. Discuss the anticipated volumes of waste rock and tailings.
- 28. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

#### **B-8. Stockpiles**

- 29. Indicate on a map the location and conceptual design of all stockpiles.
- 30. Describe the types of material to be stockpiled. (i.e. ore, overburden)
- 31. Describe the anticipated volumes of each type of material to be stockpiled.
- 32. Describe any containment measures for stockpiled materials as well as treatment measures for runoff from the stockpile.
- 33. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

#### **B-9. Mine Development Activities**

- 34. Indicate the type(s) of mine development activity(s):
  - Underground
  - Open Pit
  - Strip Mining
  - Other
- 35. Describe mine activities.
  - Mining development plan and methods
  - Site access
  - Site infrastructure (e.g. airstrip, accommodations, offshore infrastructures, mill facilities, fuel storage facilities, site service roads)
  - Milling process
  - Water source(s) for domestic and industrial uses, required volumes, distribution and management.
  - Solid waste, wastewater and sewage management
  - Water treatment systems
  - Hazardous waste management
  - Ore stockpile management
  - Tailings containment and management
  - Waste rock management
  - Site surface water management
  - Mine water management
  - Pitting and guarrying activities (please complete Section C)
  - Explosive use, supply and storage (including on site manufacturing if required)
  - Power generation, fuel requirements and storage
  - Continuing exploration
  - Other
- 36. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.

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#### B-10. Geology and Mineralogy

- 37. Describe the physical nature of the ore body, including known dimensions and approximate shape.
- 38. Describe the geology/ mineralogy of the ore deposit
- 39. Describe the host rock in the general vicinity of the ore body.
- 40. Discuss the predicted rate of production.
- 41. Describe mine rock geochemical test programs which have been or will be performed on the ore, host rock, waste rock and tailings to determine acid generation and contaminant leaching potential. Outline methods and provide results if possible.

#### B-11. Mine

- 42. Discuss the expected life of the mine.
- 43. Describe mine equipment to be used.
- 44. Does the project proposal involve lake and/or pit dewatering? If so, describe the activity as well as the construction of water retention facilities if necessary.
- 45. Discuss the possibility of operational changes occurring during the mine life with consideration for timing. (e.g. open pit to underground)
- 46. If project proposal involves uranium mining, consider the potential for radiation exposure and radiation protection measures. Particular attention should be paid to The Nuclear Safety and Control Act.

#### B-12. Mill

- 47. If a mill will be operating on the property in conjunction with mining, indicate whether mine-water may be directed to the mill for reuse.
- 48. Describe the proposed capacity of the mill.
- 49. Describe the physical and chemical characteristics of mill waste as best as possible.
- 50. Will or does the mill handle custom lots of ore from other properties or mine sites?

#### **SECTION C:** Pits and Quarries

- 1. Describe all activities included in this project.
  - Pitting
  - Quarrying
  - Overburden removal
  - Road use and/or construction (please complete Section A)
  - Explosives transportation and storage
  - Work within navigable waters
  - Blasting
  - Stockpiling
  - Crushing
  - Washing
  - Other
- 2. Describe any field investigations and the results of field investigations used in determining new extraction sites.
- 3. Identify any carving stone deposits.
- 4. Provide a conceptual design including footprint.
- 5. Describe the type and volume of material to be extracted.
- 6. Describe the depth of overburden.

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- 7. Describe any existing and potential for thermokarst development and any thermokarst prevention measures.
- 8. Describe any existing or potential for flooding and any flood control measures.
- 9. Describe any existing or potential for erosion and any erosion control measures.
- 10. Describe any existing or potential for sedimentation and any sedimentation control measures.
- 11. Describe any existing or potential for slumping and any slump control measures.
- 12. Describe the moisture content of the ground.
- 13. Describe any evidence of ice lenses.
- 14. If blasting, describe methods employed.
- 15. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.
- 16. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.
- 17. Discuss safety measures for the workforce and the public.

#### **SECTION D: Offshore Infrastructure**

#### D-1. Facility

- 1. Describe any field investigations and the results of field investigations used in selecting the site (i.e. aerial surveys, bathymetric surveys, tidal processes, shoreline erosion processes, geotechnical foundation conditions)
- 2. Provide a conceptual plan, profile description and drawing(s) indicating shoreline, facility footprint, tidal variations, required vessel draft, keel offset, deck height freeboard
- 3. Discuss how anticipated loads on the seabed foundation and on the offloading platform will be incorporated into the design.
- 4. Describe how vessels will manoeuvre around the facility. (e.g. pull alongside or in front)
- 5. Discuss the anticipated life of the facility.
- 6. Describe whether part of the facility or project will be located outside of the Nunavut Settlement Area and whether any other regulatory requirements must be met (e.g. CEAA).

#### D-2. Facility Construction

- 7. Describe the types of material used for construction (i.e. granular or rock, steel piling or sheet piling, concrete). If material is granular, consider acid rock drainage potential, metal leaching potential, percentage of fines, size.
- 8. Describe dredging activities.
- 9. Indicate source of granular or rock material used in construction.
- 10. List quantities of the various types of material used in construction.
- 11. Describe construction method(s).
- 12. Indicate whether a site engineer will be on-site to inspect construction.
- 13. If proposed construction method involves dumping of fill into water, discuss measures for mitigating the release of suspended solids.

#### D-3. Facility Operation

14. Describe maintenance activities associated with the facility (e.g. dredging, maintenance to account for potential settlement of facility,)

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- 15. Discuss whether the public will have access to the facility(s) and describe public safety measures.
- 16. Describe cargo and container handling, transfer and storage facilities.
- 17. Indicate whether fuel will be transferred from barges at this site and describe the method of that fuel transfer.
- 18. Discuss frequency of use.

#### D-4. Vessel Use in Offshore Infrastructure

19. Please complete Section H

#### **SECTION E:** Seismic Survey

#### E-1. Offshore Seismic Survey

- 1. Indicate whether the survey is 2D or 3D at each site.
- 2. Describe the type of equipment used, including:
  - Type and number of vessels including length, beam, draft, motors, accommodation capacity, operational speeds when towing and when not towing
  - Sound source (type and number of airguns)
  - Type and number of hydrophones
  - Number, length, and spacing of cables/ streamers
- 3. On a map, indicate the grid, number of lines and total distance covered by each line, the distance to nearby community/communities and sensitive areas (e.g., National Parks, National Wildlife Areas, Migratory Bird Sanctuaries, recognized breeding grounds or migratory routes).
- 4. Indicate the discharge volume of the airguns, the depth of airgun discharge, the noise levels of acoustic signal at various distances from the source (e.g.,500 metres,1000 metres), and the frequency and duration of airgun operation at each site.
- 5. Discuss the potential for dielectric oil to be released from the streamer array, and describe proposed mitigation measures.
- 6. Indicate whether additional seismic operations are required for start-up of operations, equipment testing, repeat coverage of areas.
- 7. Indicate whether air gun procedures will include a "ramping up" period and, if so, the proposed rate of ramping up.
- 8. Indicate whether the measures described in the *Statement of Canadian Practice for Mitigation of Noise in the Marine Environment* will be adhered to for this project.
- 9. Describe whether any part of the project will be located outside of the Nunavut Settlement Area and whether any other regulatory requirements must be met (e.g. CEAA).

#### E-2. Nearshore/Onshore Seismic Survey

- 10. For each site, indicate whether nearshore and onshore surveys will be conducted during the ice season or once the ice has melted
- 11. Describe how nearshore and onshore areas will be accessed.
- 12. Describe the survey methods to be used (e.g. explosive charge, vibration, air or water gun, other)
- 13. Describe equipment to be used
- 14. If applicable, indicate number, depth and spacing of shot holes

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15. Describe explosive wastes including characteristics, quantities, treatment, storage, handling, transportation and disposal methods.

#### E-3. Vessel Use in Seismic Survey

16. Please complete Section H.

#### **SECTION F:** Site Cleanup/Remediation

- 1. Describe the location, content, and condition of any existing landfills and dumps (indicate locations on a map).
- 2. Identify salvageable equipment, infrastructure and/or supplies.
- 3. Provide a list of all contaminants to be cleaned up, anticipated volumes and a map delineating contaminated areas. This includes buildings, equipment, scrap metal and debris, and barrels as well as soil, water (surface and groundwater) and sediment.
- 4. Describe the degree of pollution/contamination, and list the contaminants and toxicity.
- 5. Describe technologies used for clean-up and/or disposal of contaminated materials. Include a list of all the physical, chemical and biological cleanup/ remediation methods, operational procedures, and the dosage/frequency of reagents and bacterial medium.
- 6. Identify and describe all materials to be disposed of off site, including the proposed off site facilities, method of transport and containment measures.
- 7. Discuss the viability of landfarming, given site specific climate and geographic conditions.
- 8. Describe the explosive types, hazard classes, volumes, uses, location of storage (indicate on a map), and method of storage (if applicable).
- 9. If blasting, describe the methods employed.
- 10. Describe all methods of erosion control, dust suppression, and contouring and revegetation of lands.
- 11. Describe all activities included in this project.
  - Excavation (please complete Section B-5)
  - Road use and/or construction (please complete Section A)
  - Airstrip use and/or construction
  - Camp use and/or construction
  - Stockpiling of contaminated material
  - Pit and/or quarry (please complete Section C)
  - Work within navigable waters (please complete Section H)
  - Barrel crushing
  - Building Demolition
  - Other

#### **SECTION G: Oil and Natural Gas Exploration/Activities**

#### G-1. Well Authorization

- 1. Identify the location(s) of the well centre(s) by latitude and longitude. Attach a map drawn to scale showing locations of existing and proposed wells.
- 2. Indicate if the site contains any known former well sites.
- 3. Include the following information for each well:
  - a. Well name
  - b. Surface location
  - c. Proposed bottomhole location

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- d. Ground elevation (in metres)
- e. Spacing area (in units)
- f. Identify the well type:
  - i. Production
  - ii. Injection
  - iii. Disposal
  - iv. Observation
  - v. Storage
  - vi. Experimental
  - vii. Other (specify)
- g. Identify the well classification:
  - i. Exploratory wildcat
  - ii. Exploratory outpost
  - iii. Development
- h. Drilling operation (deviation):
  - i. Vertical
  - ii. Directional
  - iii. Horizontal
  - iv. Slant
- i. Objective Zones (copy chart style below)

Objective Formation	Fluid (oil/gas/water)	Depth (mTVD)	Core (Y/N)
-			

- j. Proposed Total Depth in mTDV and mMD.
- k. Formation of Total Depth
- I. Sour well? (yes or no)
  - i. If Yes: Maximum H<sub>2</sub>S concentration in mol/kmol Emergency planning zone radius in km
- m. Blowout Prevention (Well Class I VI)
- n. Deviation Surveys
  - i. Will be run at intervals less than 150m? (yes or no)
- o. Wireline logs
  - i. Will run logs in hole for surface casing? (yes or no)
  - ii. Will run a minimum of 2 porosity measuring logs? (yes or no)

#### G-2. On-Land Exploration

- 4. Indicate if the site contains any known:
  - a. Waste Dumps
  - b. Fuel and Chemical Storage Areas
  - c. Sump Areas
  - d. Waste Water Discharge Locations
- 5. Attach maps drawn to scale showing locations of existing and proposed items identified in (2) above, as well as all proposed:
  - a. Sumps
  - b. Water sources
  - c. Fuel and chemical storage facilities
  - d. Drilling mud storage areas

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- e. Transportation routes
- 6. If utilizing *fresh water*, estimate maximum drawdown and recharge capability of the river or lake from which water will be drawn.
- 7. Indicate if permafrost is expected to be encountered under:
  - a. Camp Facilities
  - b. Well Site
  - c. Access Routes
  - d. Sumps

e.	Other:	

- 8. Indicate any potential for encountering artesian aquifers or lost circulation within the surface hole (to casing depth).
- 9. Will drilling wastes contain detrimental substances (including, but not limited to, oil-based or invert mud and high salinity fluids)? If yes, indicate the substances and estimated volumes.
- 10. Indicate methods for disposal of drilling wastes:
  - a. Sump
  - b. Down Hole (requires NEB approval)
  - c. On-Site Treatment (provide plan)
  - d. Off-Site (give location and method of disposal)
- 11. If a sump is being used, attach the following information:
  - a. scale drawings and design of sumps
  - b. capacity in cubic metres
  - c. berm erosion protection
  - d. soil permeability and type
  - e. recycling/reclaiming waters
  - f. surface drainage controls
  - g. abandonment procedures
- 12. Attach the proposed or existing contingency plan which describes the course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials.
- 13. Attach an outline of planned abandonment and restoration procedures.

#### G-3. Off-Shore Exploration

- 14. Will drilling wastes contain detrimental substances (including, but not limited to, oil-based or invert mud and high salinity fluids)? If yes, indicate the substances and estimated volumes.
- 15. Attach the proposed or existing contingency plan which describes the course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials.
- 16. Attach an outline of planned abandonment and restoration procedures.
- 17. Please complete Section H.

#### G-4. Rig

- 18. Type of Rig. Draw works, make and model
- 19. Derrick/Mast make and model
- 20. H.P. available to draw-works

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#### **SECTION H: Marine Based Activities**

#### H-1. Vessel Use

- 1. Describe the purpose of vessel operations.
- 2. List classes and sizes of vessels to be used.
- 3. Indicate crew size.
- 4. Indicate operating schedule.
- 5. Provide a description of route to be traveled (include map).
- 6. Indicate whether the vessel will call at any ports. If so, where and why?
- 7. Describe wastes produced or carried onboard including the quantities, storage, treatment, handling and disposal methods for the following:
  - a. Ballast water
  - b. Bilge water
  - c. Deck drainage
  - d. Grey and black water
  - e. Solid waste
  - f. Waste oil
  - g. Hazardous or toxic waste
- 8. List all applicable regulations concerning management of wastes and discharges of materials into the marine environment
- 9. Provide detailed Waste Management, Emergency Response and Spill Contingency Plans
- 10. Does the vessel(s) possess an Arctic Pollution Prevention Certificate? If yes, indicate the date of issue and the name of the classification society.
- 11. Describe the source of fresh water and potable water
- 12. Indicate whether ice-breaking will be required, and if so, approximately where and when? Discuss any possible impacts to caribou migration, Inuit harvesting or travel routes, and outline proposed mitigation measures.
- 13. Indicate whether the operation will be conducted within the Outer Land Fast Ice Zone of the East Baffin Coast. For more information on the Outer Land Fast Ice Zone, please see the Nunavut Land Claims Agreement (NLCA), Articles 1 and 16.
- 14. Indicate whether Fisheries or Environmental Observers or any other *Qualified Marine Observer* will be onboard during the proposed project activities. If yes, describe their function and responsibilities.
- 15. Describe all proposed measures for reducing impacts to marine habitat and marine wildlife (including mammals, birds, reptiles, fish, and invertebrates).
- 16. Describe whether any part of the project will be located outside of the Nunavut Settlement Area and whether any other regulatory requirements must be met (e.g. CEAA).

#### H-2. Disposal at Sea

- 17. Provide confirmation you have applied for a *Disposal at Sea* permit with Environment Canada.
- 18. Provide a justification for the disposal at sea.
- 19. Describe the substance to be disposed of, including chemical and physical properties.
- 20. Indicate the location where the disposal is to take place.
- 21. Describe the frequency of disposals (disposals per day/week or month).
- 22. Describe the route to be followed during disposal and indicate on a map.

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- 23. Indicate any previous disposal methods and locations.
- 24. Provide an assessment of the potential effects of the disposal substance on living marine resources.
- 25. Provide an assessment of the potential of the disposal substance, once disposed of at sea, to cause long-term physical effects.
- 26. Describe all mitigation measures to be employed to minimize the environmental, health, navigational and aesthetic impacts during loading, transport and disposal.

#### **SECTION I:** Municipal and Industrial Development

- 1. Describe the business type, including public, private, limited, unlimited or other.
- 2. Describe the activity (e.g. development of quarry, development of hydroelectric facility, bulk fuel storage, power generation with nuclear fuels or hydro, tannery operations, meat processing and packing, etc.).
- 3. Describe the production process or service provision procedures.
- 4. Describe the raw materials used in this activity, the storage and transportation methods. If hazardous materials are included in raw materials, products or byproducts; include safety regulations methodology.
- 5. Provide detailed information about the structure and/or building in which the activity will be conducted.
- 6. List the PPE (personal protective equipment) and tools to be used to protect personal health and safety.
- 7. Describe the firefighting equipment that are or will be installed.
- 8. Describe the noise sources, noise level in work area, technical measurements that will be adopted to abate the noise levels and regulatory requirements for noise abatement and noise levels.
- 9. Describe the type of gaseous emission that will be produced during this activity. Include the allowable thresholds and mitigation measures.
- 10. Describe odours that the activity might release and include corresponding allowable threshold. Describe mitigation measures if thresholds are exceeded.
- 11. Describe radiation sources that might be emitted during the activity. Include type and source and include mitigation measures. Also describe preventative measures for human exposure (i.e. PPE).
- 12. Discuss the employee safety and environment protection training program.
- 13. If the activity involves a bulk fuel storage facility, include drawings showing the bulk fuel storage facility location in proximity to natural water courses, high water marks, etc.
- 14. If the activity involves the development of a new quarry or expansion of an existing quarry, complete Section C.

#### 4. DESCRIPTION OF THE EXISTING ENVIRONMENT

Describe the existing environment, including physical, biological and socioeconomic aspects. Where appropriate, identify local study areas (LSA) and regional study areas (RSA).

Please note that the detail provided in the description of the existing environment should be appropriate for the type of project proposal and its scope.

The following is intended as a guide only.

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#### **Physical Environment**

Please note that a description of the physical environment is intended to cover all components of a project, including roads/trails, marine routes, etc. that are in existence at present time.

- Proximity to protected areas, including:
  - i. designated environmental areas, including parks;
  - ii. heritage sites;
  - iii. sensitive areas, including all sensitive marine habitat areas;
  - iv. recreational areas;
  - v. sport and commercial fishing areas;
  - vi. breeding, spawning and nursery areas:
  - vii. known migration routes of terrestrial and marine species;
  - viii. marine resources;
  - ix. areas of natural beauty, cultural or historical history;
  - x. protected wildlife areas; and
  - xi. other protected areas.
- Eskers and other unique landscapes (e.g. sand hills, marshes, wetlands, floodplains).
- Evidence of ground, slope or rock instability, seismicity.
- Evidence of thermokarsts.
- Evidence of ice lenses.
- Surface and bedrock geology.
- Topography.
- Permafrost (e.g. stability, depth, thickness, continuity, taliks).
- Sediment and soil quality.
- Hydrology/ limnology (e.g. watershed boundaries, lakes, streams, sediment geochemistry, surface water flow, groundwater flow, flood zones).
- Tidal processes and bathymetry in the project area (if applicable).
- Water quality and quantity.
- Air quality.
- Climate conditions and predicted future climate trends.
- Noise levels.
- Other physical Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

#### **Biological Environment**

- Vegetation (terrestrial as well as freshwater and marine where applicable).
- Wildlife, including habitat and migration patterns.
- Birds, including habitat and migration patterns.
- Species of concern as identified by federal or territorial agencies, including any
  wildlife species listed under the Species at Risk Act (SARA), its critical habitat or
  the residences of individuals of the species.
- Aquatic (freshwater and marine) species, including habitat and migration/spawning patterns.
- Other biological Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

#### Socioeconomic Environment

Proximity to communities.

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- Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project (Local Study Area) and adjacent area (Regional Study Area).
- Palaeontological component of surface and bedrock geology.
- Land and resource use in the area, including subsistence harvesting, tourism, trapping and guiding operations.
- Local and regional traffic patterns.
- Human Health, broadly defined as a complete state of wellbeing (including physical, social, psychological, and spiritual aspects).
- Other Valued Socioeconomic Components (VSEC) as determined through community consultation and/or literature review.

#### 5. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

- Please complete the attached Table 1 Identification of Environmental Impacts, taking into
  consideration the components/activities and project phase(s) identified in Section 4 of this
  document. Identify impacts in Table 1 as either positive (P), negative and mitigable (M),
  negative and non- mitigable (N), or unknown (U).
- 2. Discuss the impacts identified in the above table.
- 3. Discuss potential socioeconomic impacts, including human health.
- 4. Discuss potential for transboundary effects related to the project.
- 5. Identify any potentially adverse effects of the project proposal on species listed under the *Species at Risk Act (SARA)* and their critical habitats or residences, what measures will be taken to avoid or lessen those effects and how the effects will be monitored.
- 6. Discuss proposed measures to mitigate all identified negative impacts.

#### 6. CUMULATIVE EFFECTS

A cumulative impact (or effect) can be defined as the impact on the environment that results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions. Cumulative impacts can also result from individually minor but collectively significant actions taking place over a period of time.

Discuss how the effects of this project interact with the effects of relevant past, present and reasonably foreseeable projects in a regional context.

#### 7. SUPPORTING DOCUMENTS

Where relevant, provide the following supporting documents:

- Abandonment and Decommissioning Plan
- Existing site photos with descriptions
- Emergency Response Plan
- Comprehensive Spill Prevention/Plan (must consider hazardous waste and fuel handling, storage, disposal, spill prevention measures, staff training and emergency contacts)

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- Waste Management Plan/Program
- Monitoring and Management Plans (e.g. water quality, air pollution, noise control and wildlife protection etc.)
- If project activities are located within Caribou Protection Areas or Schedule 1 Species at Risk known locations, please provide a Wildlife Mitigation and Monitoring Plan

In addition, for Project Type 9 (Site Cleanup/Remediation), please provide the following additional supporting documents:

- Remediation Plan including cleanup criteria and how the criteria were derived.
- Human Health Risk Assessment of the contaminants at the site.

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#### **TABLE 1 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS**

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Nunavut MPACT REVIEW ENUNAVUT Kanogilivalianikot Elittohaiyeoplotik Ka	OARD tümayiit	ENVIRONMENTAL COMPONENTS	PHYSICAL	designated environmental areas (ie. Parks, Wildlife Protected areas)	ground stability	permafrost	hydrology/ limnology	water quality	climate conditions	eskers and other unique or fragile landscapes	surface and bedrock geology	sediment and soil quality	tidal processes and bathymetry	air quality	noise levels	other VEC:	other VEC:	other VEC:	BIOLOGICAL	vegetation wildlife, including habitat and migration patterns	birds, including habitat and migration patterns	species, incl. ł n/spawning	wildlife protected areas	other VEC:	other VEC:	SOCIO-ECONOMIC	archaeological and cultural historic sites	employment	community wellness	community infrastructure	human health	other VSEC
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Note: Please indicate in the matrix cell whether the interaction causes an impact and whether the impact is

P = Positive

If no impact is expected please leave the cell blank

N = Negative and non-mitigatable
M = Negative and mitigatable
U = Unknown