

# Wildlife Management Plan

## PIN-C Remediation Project

**PREPARED BY: Crown Indigenous Relations and Northern Affairs Canada**

**PLAN DATE: August 30, 2024**

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## 1 Introduction

Due to the remote nature of the PIN-C Remediation Project site, there is the potential for wildlife encounters. This Wildlife Management Plan will outline procedures for addressing risks associated with potential encounters.

There are also hazards at the sites that could be potentially dangerous to wildlife including: deteriorating buildings, hazardous and non-hazardous debris, hydrocarbon and metals impacted soils, and during remediation there will be moving vehicles. The purpose of the remediation project is to mitigate hazards to humans and the environment.

## 2 Potential Large Wildlife

Wildlife may be present at the project site, including the potential for the following large species (AECOM Ltd., 2024):

- Polar Bear
- Caribou
- Arctic Wolf
- Arctic Fox

Due to the abundance of polar bears within the project area and the potential impacts from bear related incidents, this plan will focus on bear encounters. However, the basic principles of the plan can be applied to other dangerous animals, if encountered.

## 3 Response Procedures

Defined roles and responsibilities have been established to deal with any potential wildlife response. Table 1 outlines the personnel position and their associated roles/responsibilities in regards to wildlife response. Response Procedures are outlined Appendix A.

**Table 1: Personnel Position and Associated Responsibilities**

Position	Responsibility
<b>Project Manager</b>	<ul style="list-style-type: none"><li>• Preparing Wildlife Management Plan and coordinating resources required to implement the plan; and</li><li>• Providing appropriate training to field personnel.</li></ul>
<b>Site Supervisor</b>	<ul style="list-style-type: none"><li>• Implement the Wildlife Management Plan;</li><li>• Provide appropriate wildlife response equipment to Wildlife Monitor(s), including fire arms and ammunition;</li><li>• Ensure crew is aware of the Plan and are trained to respond to wildlife encounter appropriately; and</li><li>• Report wildlife encounters.</li></ul>
<b>Wildlife Monitor(s)</b>	<ul style="list-style-type: none"><li>• Ensure the safety of the crew by acting as the “eyes and ears” while field operations are ongoing;</li><li>• Implement the procedures outlined within this Plan;</li><li>• Ensure all fire arms and ammunitions are used and stored appropriately;</li><li>• Response to wildlife encounters;</li><li>• Report all wildlife encounters; and</li></ul>

	<ul style="list-style-type: none"> <li>• Document wildlife sightings.</li> </ul>
<b>Designated First Aid Personnel</b>	<ul style="list-style-type: none"> <li>• Respond to first aid issues that may arise from a wildlife encounter as per the Emergency Response Plan.</li> </ul>
<b>Crew</b>	<ul style="list-style-type: none"> <li>• Report any wildlife encounters to wildlife monitor and/or site supervisor; and</li> <li>• Do not impede the Wildlife Monitor during response (i.e. stay away from area)</li> </ul>

## 4 Training

Crews will be required to be knowledgeable in how to respond to a wildlife encounter in an appropriate manner. In addition, the Wildlife Monitors will have their Canadian Fire Arms Safety Course and a valid Possession of Acquisition License (PAL).

## 5 Reference Documents

To prepare this Wildlife Management Plan, the following documents were referenced:

- CIRNAC Environment, Health and Safety Standard Operating Procedures (EHS SOP) Manual – 017 (A) & (B);
- Firearms Act and its applicable regulations; and
- Canadian Firearms Safety Course Student Handbook.

## 6 Emergency Response

In the event of a wildlife encounter, the procedures identified within the Emergency Response Plan (ERP) will be implemented. Emergency Contact information is available within the ERP and provided below.

**Table 2: Response Personnel and Contact Information**

<b>Name</b>	<b>Contact Information</b>
Wildlife Emergency Line	867-975-7780
PSPC Project Manager	Claire Brown Cell: (780) 237-8429
PSPC Regional Construction Safety Advisor	Carl Zaminer Cell: (780) 905-0842
CIRNAC Project Manager	Peter Martin Cell: (867) 222-1876
Medi-Vac	<b>Air Inuit – air ambulance</b> <u>1 866 661-8456</u>
Nearest Hospital	Kugluktuk Health Center (867) 982-4531 Stanton Medical Centre, 419 Byrne Rd, Yellowknife, NT X1A 2N1 - 867-767-9300 ext. 0

## 7 Firearm Procedures

Wildlife monitors will be issued firearms and ammunition to respond to wildlife encounters. Firearm and ammunition procedures are outlined below.

## 7.1 Firearms

Only the use of non-restricted firearms will be permitted during the Remediation Project, which includes rifles or shotguns. Firearms are to be used primarily by the Wildlife Monitor and/or the Site Superintendent. In the case of an emergency, a crew member may use a firearm for wildlife defence if he or she is trained to do so. No prohibited devices are to be used with firearms, including any part of a weapon or accessory that is prescribed by regulation to be a prohibited device.

Unauthorized use of a firearm, including prohibited devices is a serious offence and will result in immediate removal from site and potential charges under the various legislation(s).

Firearms are not to be loaded when not in use.

## 7.2 Ammunition

Only center-fire ammunition will be permitted and be of .23 or larger caliber. The empty cartridges are not to be less than 44mm in length. All ammunition will be the proper fit for the firearm being used. Any ammunition that is used will be tracked by the Site Superintendent.

Ammunition of the following type is NOT to be used:

- Rim fire;
- Non-expanding bullets;
- Steel-jacketed;
- Tracer; or
- Prohibited ammunition, such as any;
  - cartridge that can be fired from a commonly available semi-automatic handgun or revolver and has projectile specifically designed to penetrate body armor;
  - any projectile that can ignite on impact, is made to be used in or with a cartridge, and is not more than 15mm in diameter;
  - any cartridge that can be fired from a shotgun and contains projectiles, known as flechettes, or any similar projectiles.

## 7.3 Storage

Appropriate ammunition storage procedures will be employed at the Sites. All ammunition will be stored in a safe place, away from any flammable goods, and will be stored in a locked container when not in use. Firearms and ammunition will be managed by the Wildlife Monitor, including storing firearm and ammunition when not in use. A secured designated area will be determined by the contractor and will be established for the storage of firearms and ammunition. No trigger lock is required as the firearms and ammunition are strictly for use in controlling animal predators in a remote wilderness area. Firearms are to be “PROVE” safe and stored unloaded.

# 8 Firearm Safety Principles

## 8.1 Basic ACTs of Safety

The four basic ACTS of firearm safety are:

1. Assume every fire arm is loaded. Regard any firearm as a potential danger;
2. Control the muzzle direction at all times.
  - a. Identify the safest available muzzle direction;
  - b. Keep the firearm pointed in the safest available direction at all times;

- c. The muzzle of a firearm **MUST NOT** be pointed towards yourself or any other person at any time. Pointing firearms at persons is a federal offence and will be treated as a serious incident.
- 3. Trigger finger must be kept of the trigger and out of the trigger guard.
  - a. Resist the temptation to put your finger on the trigger or inside the trigger guard when you pick up a firearm;
  - b. Accidental discharge is far more likely to occur if your finger is on the trigger or inside the trigger guard;
- 4. See that the firearm is unloaded when not required to be loaded for Wildlife Response – **PROVE** it safe
  - a. Do not initially handle the firearm unless you can **PROVE** it safe;
  - b. Check to see that both chamber and magazine are empty. Do this any time you initially handle a firearm
  - c. Pass or accept only open and unloaded firearms. This is an **IMPORTANT HABIT** to develop.

## 8.2 Proving a Firearm is Safe

Proving a firearm safe requires the following step to be completed in the listed order:

1. **Point** the firearm in the safest available direction (Not at yourself or any other person);
2. **Remove** all cartridges;
3. **Observe** the chamber;
4. **Verify** the feeding path; and
5. **Examine** the Bore.

The firearm is now unloaded and safe until it leaves the direct control of the person who unloaded and completed **PROVE** it safe procedures on the firearm.

## 9 Mitigating Against a Bear Encounter

Polar bears are known to inhabit the Amundsen Gulf Lowlands where PIN-C is located. How to respond to a bear will depend on the type of behavior it is exhibiting, and whether the bear has been habituated to humans.

Bears will defend their space, which will vary depending on the bear and the situation. If the bear feels their space is threatened, then an attack may be provoked. Female bears are likely to respond aggressively in defence of their cubs. Aggressive behavior is also likely in response to defending food.

A threatened bear could display behavior of huffing, panting, hissing or growling, looking directly at you or with a lowered head or ears laid back, or swaying from side to side. These threat displays could result in an attack, but may also end with the bear walking away. Additionally, a bear will stand on its hind legs, likely trying to pick up a scent, but will not charge standing on their hind legs.

### 9.1 Preventing Bear Encounters

Wildlife monitors will monitor the work area at all times during the Remediation. Checks for wildlife presence (i.e., scat) will be made each morning and evening and discussion on wildlife management will be included in morning safety briefings. Wildlife Monitors will always carry bear deterrents, including a firearm, and a communication device to stay in contact with the Site Superintendent. Any wildlife sightings will be reported to the Wildlife Monitor who will respond in accordance to this Plan.

## 9.2 Food Attractants and Waste Management

All food waste will be stored in a bear proof receptacle and incinerated, as per the Waste Management Plan.

As fuel and greases can act as a bear attractant, storage of these products will be in designated containers sealed immediately after use and provided with secondary containment. As much as possible, fuel will be kept within established Fuel Storage Areas. Precautions will be taken to avoid spills (e.g. drip trays), and any spill clean-up procedures will be implemented immediately (as per the Spill Contingency Plan). All mobile equipment will be maintained in quality working order to reduce the potential for leaks which could act as a bear attractant.

## 10 Response Equipment

Table 3 outlines the proposed Wildlife Response Equipment that may be used for wildlife response. Final equipment will be determined by the contractor in discussion with the project manager.

**Table 3: Proposed Wildlife Response Equipment**

Item	Location Stored	Use
<b>Firearms</b>	A designated storage area will be determined by the contractor, locked in appropriate containers to meet regulations.	By Wildlife Monitor, and crew in emergency.
<b>Ammunition</b>	A designated storage area will be determined by the contractor, in a manner that meets regulations.	By Wildlife Monitor, and crew in emergency.
<b>Bear Deterrents</b> <ul style="list-style-type: none"><li>- Fog horn</li><li>- Bear spray</li></ul>	A designated storage area will be determined by the contractor, in a manner that meets regulations.	By Wildlife Monitor, and crew in emergency.
<b>Communications</b> <ul style="list-style-type: none"><li>- Handheld radio</li><li>- SAT phone</li></ul>	A designated storage area will be determined by the contractor, in a manner that meets regulations.	By Wildlife Monitor, and crew in emergency.

### 10.1 Dead Wildlife

**DO NO APPROACH** any dead wildlife. Bear will aggressively defend food resources, and encountering a bear that is defending a food resource could result in an injury or fatality of a person or bear. All dead wildlife should be reported to the Wildlife Monitor and Site Supervisor.

## 11 Wildlife Management

### 11.1 Protecting Sensitive Habitat

The project area provides both year-round and seasonal habitat for wildlife species. The potential for wildlife impact exists, in the way of loss or modification of habitat and disturbance from vehicles and equipment. Environmental awareness and orientation sessions can provide an opportunity to provide some insight into wildlife encounters and protection against any impacts.

The camp will be established within previously disturbed areas. Activities will be carried out to minimize impacts.

Species of conservation concern are species either listed by COSEWIC or SARA. AECOM Project Proposal Report from 2024 identified the species at risk ranges that overlap with PIN-C. The following species were identified: two fish, four marine mammals, five terrestrial mammals and five birds. All species are presented in Table 4 below.

Table 4 identifies the species at risk potentially occurring within the project area. The primary mitigation measure of a species at risk is avoidance. If a species at risk is encountered the Wildlife Monitor and Site Supervisor will be notified.

**Table 4 Confirmed and Potential Species at Risk Potentially Occurring within the Project Area**

<b>Common Name</b>	<b>Scientific Name</b>	<b>SARA Status</b>	<b>Potential Habitat in the Proposed Project Area</b>
Atlantic Cod-Arctic Lakes Population	<i>Gadus morhua</i>	Not listed, under consideration for addition to Schedule 1. Special concern under COSEWIC.	<b>Low potential.</b> The onsite lakes are not known to have surface connectivity to the marine environment.
Fourhorn Sculpin – Freshwater form	<i>Myoxocephalus quadricornis</i>	Not listed, under consideration for addition to Schedule 1. Data deficient under COSEWIC.	<b>Low potential.</b> The onsite lakes are not thought to provide over-wintering habitat and therefore likely do not support fish.
Bowhead Whale (Bering-Chukchi-Beaufort population)	<i>Balaena mysticetus</i>	Special Concern	<b>Moderate potential.</b> Likely presence in Dolphin and Union Strait.
Beluga Whale	<i>Delphinapterus leucas</i>	Threatened (Government of Canada 2023b). COSEWIC assessments: Eastern High Arctic – Baffin Bay population – special concern. Cumberland Sound population – Endangered. Ungava Bay population – endangered. Western Hudson Bay population – not at risk. (Government of Canada 2021). Eastern Hudson Bay population – threatened. James Bay population – not at risk	<b>Low potential.</b> Population ranges typically do not extend to the proposed Project Site.
Narwhal	<i>Monodon monoceros</i>	Not listed, under consideration for addition to Schedule 1. Special concern under COSEWIC.	<b>Low potential.</b> Typical habitat is in Arctic Ocean waters east of the proposed Project Site.
Ringed Seal	<i>Pusa hispida</i>	Not listed, under consideration for addition to Schedule 1. Special concern	<b>Moderate potential.</b> Likely presence in Dolphin and Union Strait. Habitat strongly linked to sea ice. Waters adjacent to Project Site have polynyas which prevent freezing.
Dolphin and Union Caribou	<i>Rangifer tarandus</i>	Special Concern. COSEWIC identified as Endangered	<b>Moderate potential.</b> The current range of the Dolphin and Union caribou population overlaps with the Site (ECCC 2017) and one caribou was observed at the proposed Project location during the 2022 Site visit.
Peary Caribou	<i>Rangifer tarandus pearyi</i>	Endangered. COSEWIC identified as Threatened	<b>Low potential.</b> The current range of the Peary caribou population does not overlap with the Site; however, they have been observed outside of typical range. The Site is located on an exposed beach ridge representing potential winter habitat. Vegetation at the Site is likely too sparse to provide summer habitat.

Wolverine	<i>Gulo gulo</i>	Special Concern	<b>Moderate potential.</b> Site conditions provide potential habitat for the wolverine.
Polar Bear	<i>Ursus maritimus</i>	Special Concern	<b>Moderate potential.</b> The Northern Beaufort Sea subpopulation overlaps the Site. Remediation activities are anticipated to occur in July or August, which does not overlap the maternal denning period or the breeding period, additionally there will be a lack of sea ice, which they hunt from, during the remediation activities.
Grizzly Bear	<i>Ursus arctos</i>	Special Concern	<b>Moderate potential.</b> Grizzly bears have a large range and are not limited to any one habitat type. Nunavut has seasonally dependent abundance of productive habitat and food supplies.
Eskimo Curlew	<i>Numenius borealis</i>	Endangered	<b>Low potential.</b> The probable breeding areas for the Eskimo curlew overlaps the Site (Government of Canada 2022). However, the Site is dominated by coarse limestone gravels and cobbles, which is not suitable breeding habitat. There may be potential habitat in proximity to the Site in the vegetated area surrounding the cobble beach.
Peregrine Falcon anatum/tundrius	<i>Falco peregrinus anatum/tundrius</i>	Special Concern. COSEWIC identified as Not at Risk	<b>Low potential.</b> Although the breeding range of the peregrine falcon anatum/tundrius overlaps the Site typical nest sites are located on cliff ledges or in rock crevices at heights of 50 to 200 m, which are not present at the proposed Project Site (Government of Canada 2022).
Red-necked Phalarope	<i>Phalaropus lobatus</i>	Special Concern	<b>Low potential.</b> While there is open water in the Site area, it lacks graminoid vegetation which is a requirement for substantive nesting habitat.
Harris's Sparrow	<i>Zonotrichia querula</i>	Not listed, under consideration for addition to Schedule 1. Special concern	<b>Low potential.</b> The Site is near to the species' northern range. Proposed Project site lacks wooded habitat typical for species.
Short-eared Owl	<i>Asio flammeus</i>	Threatened	<b>Low potential.</b> No breeding habitat nor preferred nesting habitat are present within the Site. There is breeding habitat within the vegetated and wetted areas adjacent to the Site.

As outlined in the *CIRNAC Environment, Health and Safety Operating Procedures (EHS SOP) Manual - 17A&B*, the following items will be implemented for the Remediation Program:

1. Pursuant to the Migratory Bird Convention Act Regulations, no person shall disturb or destroy the nests or eggs of migratory birds. The period from the beginning of May to mid-August is the general migratory bird breeding season. If nests containing eggs or young are encountered, all persons on-site shall avoid these areas until nesting is complete and the young have left the nest.
2. Drivers will maintain a safe and appropriate speed on the roads, and drivers will not chase animals down roads. Instead, drivers will stop and turn off their headlights to allow stressed animals to disperse.
3. Aircraft pilots shall be informed that they must adhere to flight altitudes of greater than 300 metres above ground level, unless there is a specific need for low-level-flying which does not disturb wildlife.
4. The Land Use Permit holder shall ensure that land use activities avoid known environmentally sensitive areas (denning, nesting, etc.) by a minimum of 250 metres.
5. The Land Use Permit holder shall not locate any operation so as to block or cause substantial diversion to migration of caribou.
6. No camp or fuel cache shall be conducted within 10 km of any “designated caribou crossing” unless otherwise designated in the Land Use Permit.
7. The Land Use Permit holder shall not conduct any activity associated with the land use during critical periods of wildlife cycles where possible (e.g. caribou migration, calving, fish spawning or raptor nesting). Mitigation measures are detailed in the Project Proposal Report (PPR) to address acceptable activities and responses during the project.
8. Recreational hunting, firearm use, and/or fishing are not permitted on any site unless authorized in writing by the Regional Director.
9. Dogs are not permitted on any site unless prior authorization is obtained from the CIRNAC Project Manager.
10. Animal harassment and feeding will be prohibited throughout the Project.

## **11.2 Documenting Wildlife**

Wildlife Monitors, in addition to providing protection against wildlife predators, will record all wildlife observations. If a sighting occurs, it will be documented by the Wildlife Monitor and reported to the Site Superintendent, who will record it in the Daily Progress Report. If a crew member observes any wildlife, they are to report it to either the Wildlife Monitor or the Site Superintendent.

# Appendix A – Response Procedures

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## Bear in the Vicinity (Within 5km and Visual)

- Observe the location of the bear and note which direction it is travelling and what type of behavior it is exhibiting;
- Notify the Wildlife Monitor and Site Superintendent who will gather the bear response equipment;
- Blast the fog horn as the primary deterrent, encouraging the bear to leave the vicinity. The fog horn will also act as a signal to the rest of the crew that a bear is in the area and they should check in with the Site Superintendent who will advise of the level of potential danger and appropriate response;
- Monitor the movement of the bear, if safe to do so, until all personnel are accounted for and response procedure relayed to the Wildlife Monitors and crew;
- **DO NOT APPROACH** the bear under any circumstances;
- Keep all building doors closed, and attractants (i.e., food) stored to reduce the bears interest in pursuing an encounter;
- Adhere to the direction of the Site Superintendent, and respond as directed; and
- If safe to do so, record a description of the bear.

## Bear within 2-5km of Work/Camp Area

- Ensure the shotgun magazine is fully loaded with slugs. 12 gauge deterrents are to be hand loaded, one at a time. The shot gun can accommodate 3 slugs and the 45-70 level action rifle can accommodate 4 shells'
- Observe the bears movement and behavior watching to see if it is moving away from the work/camp area;
- Use bear deterrents again (i.e., fog horn, fire cracker shell); and
- Once the bear has left the area, and safe to do so, ensure the incident is documented. The Site Superintendent reports the encounter to the Conservation Officer (Table 2)

## Bear within 2km of Work/Camp Area

- The Wildlife Monitor will deploy deterrent rounds to aggressively drive the bear away from the work/camp area; and
- Once the bear has left the area, and safe to do so, ensure the incident is documented. The Site Superintendent reports the encounter to the Conservation Officer (Table 2)

## Bear within Work/Camp Area

- An attempt to move the bear out of the work/camp area shall be made only if it is safe to do so and no personnel are in immediate danger;
- If personnel are in immediate danger, and it is not possible to deter the bear without endangering personnel, then lethal action should be implemented;
- Ensure the bear has a route of escape, with no personnel located in the direction that the bear would likely take in leaving the area;

- If safe to do so, use deterrents (i.e., rubber bullets, screamers and/or cracker shells) to drive the bear away from the work/camp area;
- Continue to monitor the bear until you are confident that it is leaving the area;
- Ensure there are no other bears in the area;
- Check in with the Site Superintendent, ensuring all personnel are accounted for and notified of the response; and
- Once the bear has left the area, and safe to do so, ensure the incident is documented. The Site Superintendent reports the encounter to the Conservation Officer (Table 2)

## **Lethal Response to Bear**

- Lethal measures may be required in response to an unexpected incident/encounter for which there has been no warning. Alternatively, a bear may demonstrate a gradual escalation in behavior which indicates that lethal measures may be required in the future. In such an instance, the ENR Wildlife Officer will be consulted for guidance and direction.
- A bear facing sideways should be shot at the shoulder bone, into the chest area;
- A bear facing head on should be shot into the chest area;
- A minimum of two (2) shots should be fired into the vital areas, ensuring the area behind the bear is clear of any hazards, as the ammunition may pass through the bear;
- The bear is not to be approached until it is certain that it is dead, and the firearm is reloaded and ready to fire;
- Report the incident immediately to the Wildlife Emergency Line (Table 2);
- Procedures outlined by the Conservation Officer are to be implemented, which may include the removal of the hide, claws and head, which shall be placed in a freezer (so the valuable parts do not spoil) and turned over to the Conservation Officer.