

	Aurora Energy Resources Inc FINAL CLOSURE AND RECLAMATION PLAN Baker Lake Basin Property, Nunavut	Final	Page: 25 of 25
Final Closure & Reclamation Plan	Date: June 28, 2010	Approved by: JSA	

## Appendix VI

### Wildlife Monitoring & Mitigation Plan



**AURORA ENERGY RESOURCES INC.**

**WILDLIFE MONITORING AND MITIGATION PLAN**

**BAKER LAKE PROPERTY**  
**NUNAVUT**

**June 28, 2010**

## Preamble

This plan is developed in support of the final closure and reclamation plan of the Bissett Lake mineral exploration camp. The objective of the plan will be to monitor wildlife and to implement measures to avoid or deal with wildlife.

The plan will identify, analyze and manage any effects that its activities may cause to the wildlife. The plan will outline how to carry out inspections, document findings and report to appropriate regulatory agency. If an effect gets discovered that has the potential to harm wildlife then the plan will be executed immediately:

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## 1.0 WILDLIFE AUTHORIZATION

### 1.10 NIRB Screening Report

- a) Aurora shall ensure that there is no damage to wildlife habitat in as a result of project activities.
- b) Aurora personnel shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. Deliberate feeding of any wildlife is absolutely prohibited. Aurora and its employees and contractors shall not hunt or fish within the project area unless proper Nunavut authorizations have been acquired.
- c) Aurora personnel shall not touch, feed or entice wildlife to approach by holding out or setting out decoys or any such devices, foodstuffs or bait of any kind.
- d) Aurora will employ an Independent Caribou Monitor (ICM) to conduct daily ground-based surveys to help assess when caribou are within or moving towards the project area. If daily monitoring indicates a group of caribou present within 2 km of project activities, Aurora will cease operations and the operation of ground or air based mobile equipment until caribou are at least 2 km from the project activity location. Efforts undertaken by the ICM are to be summarized and included within the Wildlife Mitigation and Monitoring Report.
- e) Prior to significant operational movements Aurora shall undertake high altitude aerial reconnaissance (minimum altitude of 610 m) or an equivalent observation technique with the assistance of an ICM to determine whether any migrating caribou, caribou cows (pre-calving), caribou cows and calves or large herds (> 25 animals) are present within a 2.0 km radius of the project area. If caribou are observed, the Aurora will suspend any activities; over flights by aircraft of less than 610 m above ground level movement of equipment and personnel, until monitoring indicates the caribou are at least 2.0 km from the project area.
- f) Aurora will not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration such as movement of equipment or personnel until such time as the caribou have passed.
- g) Aurora shall not construct or operate any camp, cache any fuel or conduct blasting within 10 km, or conduct any drilling operation within 5 km, of the designated caribou crossing of Kazan River.
- h) Aurora shall ensure that unless there is a specific requirement for low level flights, which could include low ceilings or cloud cover, aircraft maintain a minimum altitude of 610 meters above ground level in places where there are occurrences of wildlife. In areas where there are observed nesting raptors or

large concentrations of birds, flight level is to be restricted to 1,000 meters vertical distance and 1,500 meters horizontal distance from the birds. It is recommended aircraft avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors. Aurora shall advise all pilots of these restrictions and enforce their application over the project area and flight paths to/from the project area. Aurora will endeavor to correspond with local hunters along the flight corridors to establish times when hunters expect to be in the area.

- i) Aurora personnel will not disturb nesting raptors and will treat all nest sites with equal precaution, regardless of the response of the bird. It is especially important not to disturb raptor nests during conditions of poor weather (rain, snow or high winds), and nesting (late May through July).
- j) Aurora will avoid any and all activity within 100 m of a raptor nest site during the latter part
- k) of the nesting stage (August 10-20 for peregrine falcons in this region).
- l) Aurora will ensure that all activities avoid known environmentally sensitive areas (denning, nesting etc.) by a minimum of 250 metres.
- m) Aurora and all employees should follow procedures outlined in the "Safety in Bear Country Manual", and will contact the regional biologist indicated below for information and advice on measures which should be taken to minimize the possibility of bear-people conflicts.
- n) Aurora will ensure compliance with the Fisheries Act (<http://laws.justice.gc.ca/en/showtdm/cs/F-14///en>). Section 35(1) of the Fisheries Act specifies that unless authorized by federal regulation, no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat. Section 36(3) of the Fisheries Act specifies that unless authorized by federal regulation, no person shall deposit or permit the deposit of a deleterious substance in any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.
- o) Aurora is aware that the following legislation may apply to the project: and Aurora will ensure compliance with the Fisheries Act (<http://laws.justice.gc.ca/en/showtdm/cs/F-14///en>). Section 35(1) of the Fisheries Act specifies that unless authorized by federal regulation, no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat. Section 36(3) of the Fisheries Act

specifies that unless authorized by federal regulation, no person shall deposit or permit the deposit of a deleterious substance in any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.

- p) Aurora will ensure compliance with the Nunavut Waters and Nunavut Surface Rights Tribunal Act which states that “no person shall use, or permit the use of, waters in Nunavut except in accordance with the conditions of a licence,” and “no person shall deposit or permit the deposit of waste (a) in waters in Nunavut; or (b) in any other place in Nunavut under conditions in which the waste, or any other waste that results from the deposit of that waste, may enter waters in Nunavut” (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
- q) Aurora will adhere to The Migratory Birds Convention Act and Migratory Birds Regulations which state that no person disturb or destroy the nests or eggs of migratory birds, and that no person shall deposit or permit to be deposited oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds  
(<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>)
- r) Aurora will adhere to The Species at Risk Act (<http://laws.justice.gc.ca/en/showtdm/cs/S-15.3>). Aurora will consult the Species at Risk Public Registry (<http://www.sararegistry.gc.ca/>) to identify any Species at Risk within the project location. Further the Aurora will develop monitoring plans for each relevant Species at Risk in accordance with any applicable status reports, recovery strategies, action plans, and management plans posted on the Species at Risk Public Registry and in consultation with the Government Organization with Primary Management Responsibility. Monitoring plans will record the locations and frequency of observing species of special concern and note any actions taken to avoid contact or cause disturbance to the species, its residence, or its critical habitat.
- s) Aurora will adhere to the Nunavut Wildlife Act which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk. Aurora will report all releases of harmful substances where the release:
- i. is near or into a water body;
  - ii. is near or into a designated sensitive environment or sensitive wildlife habitat;
  - iii. poses an imminent threat to human health or safety; or
  - iv. poses an imminent threat to a listed species at risk or its critical habitat

## 1.20 Land Use Permit #N2006J0017

*(Only additional provisions that are not specifically mentioned in NIRB Screening)*

- a) Aurora shall ensure that all water intake hoses are equipped with a screen with an appropriate mesh size to ensure that there is no entrapment of fish; that the rate of water withdrawal is such that no fish become impinged on the screen; the fish guard or screen is properly maintained; and that during fish guard or screen repair, the entrance of the water intake is closed.
- b) Aurora shall locate hazardous materials away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
- c) Aurora will ensure that chemicals containing salts, which may attract wildlife to the site, will be stored so that they are inaccessible to wildlife.
- d) Aurora will contact in advance, the Regional Biologist to identify areas which should be avoided.
- e) Pursuant to the Migratory Bird Convention Act Regulations, Aurora will not disturb or destroy the nests or eggs of migratory birds. The period from May 15 to July 31 is the general migratory bird breeding season. Aurora will endeavor to conduct its activities outside of these dates, particularly in the vicinity of known bird colonies.
- f) Aurora will ensure that all drill holes are sealed by cementing (grouting) the upper 30 metres of bedrock. Drill holes that encounter uranium mineralization with a content greater than 1% over a length of 1 metre with a meter-percentage concentration greater than 5.0% will be sealed by cementing over the entire mineralization zone; and will be at least 10 metres above and below each mineralization zone. Aurora will pump all cuttings and grey drill water to large cuttings containment bags where cuttings and grey water will be collected. Any overflow water will be contained within a large low lying area (natural sump). As part of its reclamation program, Aurora endeavors to pump back down drill holes as much of the drill cuttings as possible and will definitely pump back down any cuttings where uranium mineralization is greater than 0.05% U.
- g) Aurora will orientate its employees and contractors with respect to the risks and safety measures to be taken when working with rock that contains uranium and provide information about the hazards of working in environment where there is radiation. Aurora ensures the safety of its employees that work with core containing uranium mineralization with all personnel issued a dosimeter monitor badge as provided by Health Canada. Aurora ensures that personnel wear protective clothing, eye ware and breathing apparatus when splitting core and that all work places are well ventilated. All personnel are to wash their hands before they eat if they have been working with uranium mineralization.



- h) Aurora will use the established pit privy located at the Bissett Lake Camp. Aurora will not burn hazardous waste and will remove any hazardous material (including waste oil products). Also note that Aurora will not incinerate treated wood, plastics, electrical wire, asbestos, and demolition waste except for clean wood.
- i) Aurora will confirm there are no active nests (i.e. nests containing eggs or young) in the vicinity before activities commence. If active nests of migratory birds are encountered, avoid these areas until nesting is complete and the young have left the nest.
- j) The period from mid June to mid August is the general pre-moulting geese season when moulting geese are temporarily flightless while they lose their flight feathers and grow new ones. During this time they are particularly sensitive to disturbance. Aurora will endeavor to avoid moulting flocks where ever possible.
- k) Aurora will ensure compliance with Section 35 the Migratory Birds Convention Act and Migratory Birds Regulations which states that no person shall deposit or permit to be deposited, oil, oil wastes, or any other substance harmful to migratory birds in any waters or any areas frequented by migratory birds.
- l) Aurora will ensure compliance the Migratory Birds Convention Act and Migratory Birds Regulations during all phases and in all undertakings related to the project.
- m) Aurora will not locate any operation so as to block or cause substantial diversion to migration of caribou.
- n) Aurora will develop monitoring plans for each species of special concern in accordance with any applicable status reports, recovery strategies, action plans, and management plans posted on the Species at Risk Public Registry (<http://www.sararegistry.gc.ca>) and in consultation with the Government of Nunavut and Environment Canada. Monitoring plans must record the locations and frequency of observing species of special concern and note any actions taken to avoid contact or cause disturbance to the species, its residence, or its critical habitat.
- o) Aurora will not conduct any project activities within one (1) km of the Kazan River."
- p) Aurora will not conduct any activities within the Fall Caribou Crossing National, Historic Site and shall maintain a 1- km boundary from the site at all times.

- q) Aurora will consult with local residents including the Baker Lake Elders, Youth, and Hunters and Trappers, regarding their activities in the region, and to keep the communities informed.

### 1.30 Land Use Permit #N2006J0017 and DIAND Caribou Protection Measures.

*(Only additional provisions that are not specifically mentioned in NIRB Screening Report)*

- a) Aurora will not without approval, conduct any activity between May 15 and July 15 within the Caribou Protection Areas depicted on the "Caribou Protection Map" as certified by the Engineer.
- b) In the event that caribou cows calve outside the Caribou Protection Areas, Aurora will suspend operations within the area(s) occupied by cows and/or calves between May 15 and July 15.
- c) In the event that caribou cows and calves are present, the permittee shall suspend activities.
- d) Aurora will not, between May 15 and Sept 1, construct any camp, cache any fuel, or conduct any blasting within 10 kilometres of any "Designated Crossing" as outlined on the "Caribou Protection Map" as certified by the Engineer.
- e) Aurora will not, between May 15 and Sept 1, conduct any operation within 5 kilometres of any "Designated Crossing" as outlined on the "Caribou Protection Map" as certified by the Engineer.
- f) Aurora will cease activities that may interfere with migration or calving, such as airborne geophysics surveys or movement of equipment, until after the migrating caribou have passed.

## 2.0: PREDICTED IMPACTS TO WILD LIFE/HABITAT

Possible impacts and mitigations to wildlife and wildlife habitat:

- 1) Possible damage to wild life habitat may result from drill set ups. Damage to the tundra is mitigated by building the drill set up on wooden timbers to keep the drill steel up off the tundra and prevent roughening of the tundra moss.
- 2) Aurora employees and contractors are instructed not to feed wild animals such as foxes or harass the animals in any way. If animals are feed while they are still very young, their development may be impaired with respect to learning how to hunt for them-selves. Harassing animals could upset normal birthing periods causing premature births of caribou for example.
- 3) Low level helicopter flying necessary for moving equipment may scare or worry caribou or muskox. With the hiring of ICM from Baker Lake, an early morning fly around will let us know if there are any caribou or muskox within the work area. If there are caribou or muskox in the area, the operation will be put on hold or moved to a different part of the property until the animals have moved away.
- 4) In a camp situation, if garbage is not burnt regularly, this can promote a problem with wild animals including bear, wolverine, wolves and foxes scrounging for food. If animals get into a habit of finding food at camps, this will disrupt their hunting patterns. This situation puts both company personnel and animals at risk. Personnel at risk because of personnel injury caused by animal attacks and animals at risk, because if guns are used for protection, animals may be harmed in the process of protecting human life. This situation can be mitigated or avoided by burning garbage on a daily basis.
- 5) During the course of completing property ground surveys (geological mapping radiometrics or grid construction) raptors may be encountered. If raptors have nests low to the ground, they may be disturbed if personnel walk to close. Personnel are instructed to make wide detours round areas where raptors are nesting so that nesting birds are not disturbed. If personnel do not leave the area and continue to work, the raptor may leave the area altogether, abandoning their nest and leaving the fledging small birds or eggs to mercy of the elements and predators.
- 6) By utilizing spill kits at all sites where fuel is being dispensed or stored, the effects of minor or major spills of diesel, gasoline or oil or oil wastes are mitigated. If these substances, seep into the water supply system water fowl or other animals may be seriously harmed.
- 7) By ensuring that all intake water hoses are equipped with screens of appropriate mesh size, entrapment of fish is avoided. Also, if the rate of water withdrawal is controlled, fish impinging on the screen is also avoided.

- 8) By keeping hazardous material away from the high water mark of any body of water, any spill of hazardous material is mitigated. Spills of hazardous materials into any body of water would be harmful to any wild life uses the water system. By storing hazardous materials above the high water mark prevents the materials from being dissolved into the environment.
- 9) Storing of salt in a proper storage containers inaccessible to wild animals will mitigate the problem of attracting wildlife to the camp site and eliminated possible dangerous wildlife encounters with personnel.
- 10) Field work by company personnel may encounter predatory animals such as grizzly bears wolves or wolverine. Hunting by company personnel is strictly prohibited. Guns are only carried by qualified personnel and for protection purposes only. Aurora hires local Baker Lake residents experienced in hunting and gun handling. Animals are only to be shot at only if they are being aggressive. Warning shots are generally effective to scare the animals away before the animals become a serious threat and before animals have to be harmed.

### 3.0 MITIGATION AND MANAGEMENT STRATEGIES

Aurora's protocol for initiating the shut down of all exploration activities during periods of caribou migration:

- a) If migrating caribou are within 2km of exploration work including, Aurora will suspend such surveys until the caribou have moved to at least 2km away. Aurora will employ an ICM from Baker Lake to assist in the monitoring of caribou movements.
- b) With respect to less obtrusive exploration surveys conducted by Aurora including personnel exploring on foot including geological mapping, GPS grid survey construction and radiometric surveying, Aurora will suspend work in the area and move to another area where the caribou are 1km away.
- c) With respect camp scenario or our core processing facility, if caribou migration movement come within 2.0 km of the facility all personnel will be instructed to return to their tents and be quiet. All motors will be shut down until the caribou have moved away at least 2.0 km away.

## 4.0 MONITORING PROCEDURES

Aurora will employ an ICM who will be a resident and native Inuit of Nunavut (preferably from Baker Lake community). The monitor will be knowledgeable about Inuit traditions and will be able to develop his/her own unique monitoring program by incorporating Inuit traditions. As a base for the program, Aurora would require:

- a) The caribou monitor to complete a high altitude helicopter reconnaissance (minimum of 610m) of all work areas in the morning before crews start aerial work.
- b) Each area monitored will be recorded on a daily basis. The record will include:
  - Location (latitude and longitude)
  - Species
  - Number of animals
  - Description and gender and age (young present?) of animals if possible;
  - Description of animal activity/behavior prior to encounter and the response to human presence;
  - Observations and locations of denning, calving areas, caribou crossings, raptor nests and other;
  - Timing of critical life history events observed such as calving, mating, denning, nesting;
  - All actions/ mitigation taken to reduce adverse impacts to wildlife; and
  - An analysis of the effectiveness of mitigation measures or adaptive management strategies implemented.
- c) Throughout the day, all Aurora personnel who are working on foot will be required to monitor caribou movements in their work area. If caribou move closer than 1 km into a work area, the employee or contractor will be instructed to move out of the area and have the helicopter pick them up and move them to another location or shut down for the remainder of the day.
- d) If the caribou move into the camp area closer than 2km, operations will be shut down and workers will be instructed to cease work until the caribou move at least 2 km away
- e) The caribou monitor will also return at pickup time for the crews to give an idea where the caribou might be located for the following day and record their locations.

## 5.0 PREVENTION OF HUMAN-CARNIVORE CONFLICT

### 5.10 Food Handling and Storage

Proper food handling and storage is important in a camp scenario. Most food except for fruit and vegetables will be stored in freezers to keep the food fresh until it is used. Left-over food will be stored in refrigerators and food waste will be disposed of in Smart ash incinerators. No food will be left as the odors will attract wildlife. Waste food including vegetable peels will be gathered and incinerated.

In the field, personnel will be instructed to bring left-over lunch food including fruit waste back to camp or town to be incinerated or deposited in the Baker Lake land fill.

### 5.20 Garbage Disposal

All combustible garbage will be burnt on a daily basis in a empty fuel drum.

All non-combustibles such as waste metal (cans) will be flown out to the Baker Lake community landfill where it will be disposed of properly. Any waste oil will be returned to the Baker Lake where it will be disposed of properly. Aurora has an agreement with a reputable contactor that will dispose of all our used oil by way of oil burning furnaces. Aurora will obtain permission from the Baker Lake council to utilize the landfill to dispose of garbage and non-combustibles.

### 5.30 Staff Training In Bear/Wolf/Fox/Wolverine Encounters

Aurora and all employees and contractors will follow procedures outlined in the “Bear Country Manual” and will contact the regional biologist below for information and advice on measures which should be taken to minimize the possibility of bear-people conflicts as well as conflicts with wolf, fox and wolverine. All interactions with carnivores will be reported to the local conservation officer.

Ecosystems Biologist (Environment Assessment)  
Hillary Robinson (867) 934-2176, hrobinson@nunavutwildlife.ca

GN-DOE Manager, Wildlife  
Dan Shewchuck, (867) 857-2828, dshewchuck@gov.nu.ca

Biologist, Kivalliq Region  
Mitch Campbell, (867) 857-2828, mcampbell@gov.nu.ca all

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## 6.0 SUPERVISION OF ON-SITE WORKERS

Aurora will contract a Project Manager who will be a Level II Supervisor who will be in charge of its Baker Basin field operations.

The manager will:

- Report directly to the Aurora's VP of Exploration.
- Implement a program of daily meetings that will lay out the framework for all Aurora mitigation measures and then with follow meetings make sure that the measures are strictly enforced.
- supervise employees and contractors on implementation of the Wildlife Monitoring and Mitigation Plan.



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## 7.0 COMMUNICATION OF WILDLIFE MITIGATION MEASURES

As stated above in 6.0, Aurora will employ a Level II supervisor who is responsible for all aspects of the Baker Basin program. He/she will implement a program of daily and weekly meetings that will initially lay out the framework for all Aurora mitigation measures and then with follow meetings make sure that the measures are strictly enforced. For example one meeting will focus on enactment of a mock spill and all the procedures that are required to be completed if there is a dangerous goods spill (i.e. diesel, gas or oil).

Aurora as stated above, will, as in the past two years employ the expertise of 1984 Enterprises Inc. who will supply first aid/ safety personnel who look after all first aid requirements as well will implement a safety program and orient employees/contactors on various mitigation and safety procedures as well as supply safety and camp manuals that are available for perusal at any time by personnel.

## Appendix I

### Map showing the Caribou Protection Areas

