

QWB Submission  
to the Nunavut Planning Commission  
in response to the 2021 Draft Nunavut Land Use Plan (DNLUP)  
regarding  
**Wildlife Habitat Areas**  
No. 2023 – D

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**Prepared By:** Qikiqtaaluk Wildlife Board (QWB), with support from Firelight Research Inc.

**In response to:** The 2021 Draft Nunavut Land Use Plan

**Date:** February 10 2023

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**Submission QWB-QIA 2023-D-22**

**Updated from 2018 QWB Written Submission No. 02**

**2021 Draft Nunavut Land Use Plan**

**Walrus Haul-outs (Ulliit) on Ice, Dundas Island**

**To:** The Nunavut Planning Commission

**From:** The Qikiqtaaluk Wildlife Board (QWB), and the Hunters and Trappers Organizations (HTOs) of Resolute Bay

**Background Information:**

Atlantic walrus are important to the nutritional, cultural and economic well-being and traditions of Inuit. They are also a vital component of the ecology of marine environments in Qikiqtaaluk Region.

Walrus haul-out on sea ice in winter and spring, and on land in summer and fall. They often haul-out in tight congregations on sea ice around stable polynyas in winter where food is readily available annually. Terrestrial haul-outs are often small but densely populated used areas, while around polynyas, very large numbers of walrus are seen over an extensive area.

In Inuktitut, walrus haul-outs are ulliit (ulli, singular). Habitats for ulliit are limited. Large numbers of walrus must be able to move easily, quickly and safely in and out of the water, especially in the presence of predators and human disturbance. Haul-outs must also be in close vicinity to suitable foraging habitats, mainly shellfish beds.

Walrus are susceptible to impacts of human disturbance at and near ulliit. Repeated disturbance by people who do not have sufficient knowledge of approach methods known to Inuit may cause short or long-term abandonment of ulliit. Besides from being protected for ocean vessels, walrus should be protected from disturbance from aircraft and terrestrial vehicles. Walrus at ulliit on land and sea ice should be protected.

The 2021 draft Nunavut Land Use Plan (DNLUP) identified and mapped a considerable number of ulliit in Qikiqtaaluk Region, which is excellent. However, the 2021 DNLUP did not give Limited Use protection to the many walrus that use the major ice Ulliit at the polynya near Dundas Island, north of Resolute Bay. This Ulliit may be the home of the largest population of walrus in the Canadian High Arctic.

Based on Inuit Qaujimajatuqangit, this ice ulliit is known to harbour large numbers of walrus that haul out onto the ice and feed in the open waters of the permanent polynya throughout winter. Each spring the polynya expands to the southwest toward Crozier, Little Cornwallis and Cornwallis islands. The walruses continue to haul out on the ice edges as the polynya expands until open water allows them to move farther. (Note: Although the sea ice in the spring expansion zone may appear solid in winter and early spring, it is highly unstable and usually unsafe for humans.

This is the winter home of walrus that provide food to Inuit of Resolute Bay and probably other communities in the High Arctic. In order for the final NLUP to meet its goals established by the Nunavut Agreement, this Ulliit must be given protection with a Limited Use designation.

**Source of information:** Inuit Qaujimajatuqangit.

**Proposed Amended Restrictions:**

**Prohibited Uses:** The following uses are prohibited:

- Mineral Exploration and Production;
- Oil and Gas Exploration and Production;
- Seismic testing;
- Disposal at Sea;
- Quarries;
- Hydro-electrical and related infrastructure;
- Linear Infrastructure;
- Tourism; and
- Related research except Non-exploitive Scientific Research

**Conditions:**

- No vessel may approach within five (5) km seaward of a walrus haul-out, any time during the year.
- When walrus are present, fixed wing aircraft must maintain a minimum vertical setback of 460 m (1500 ft) above ground level (AGL) while within 310 m (1000 ft) of a group of walruses. Helicopters should remain at altitudes greater than 910 m (3000 ft) AGL when traveling within 1,610 m (1 mile) of a group of walruses.
- When walruses are present, walruses must not be approached by snowmobiles or other vehicles on ice or land closer than 800 m (0.5 mile) while the vehicle remains out of sight of the walruses.
- Any project in Nunavut that would violate these conditions is prohibited.

**Proposed Additional Walrus Haul-outs:**

Add this walrus haul-out (ulliit) identified by Inuit around the ice edges of the polynya near Dundas Island, as shown on northwestern portion of the attached maps and in the associated shp files.

**References:**

Ristroph, B. 2016. Pacific Walrus Protection and Management in a Changing Climate: Findings from the 2016 Arctic Science Summit Seminar. Pacific Environment, San Francisco, USA. 45 pp.

[http://www.pacificenvironment.org/wp-content/uploads/2017/02/walrus-mgmt-report\\_final\\_gl.pdf](http://www.pacificenvironment.org/wp-content/uploads/2017/02/walrus-mgmt-report_final_gl.pdf)

US Fish and Wildlife Service. 2018. U.S. Fish and Wildlife Service Approach & Viewing Guidelines for Pacific Walruses. USFWS, Anchorage, USA. 2 pp. <https://s3.amazonaws.com/arc-wordpress-client-uploads/adn/wp-content/uploads/2018/05/08093104/walrus-viewing-guidelines-2018-1.pdf>

**Date:** February 10, 2023



## Submission QWB 2023-D-23

Updated from 2018 QWB Written Submission No. 04

### 2021 Draft Nunavut Land Use Plan

#### Walrus Calving and Post-calving Areas, East of Bathurst Island

To: The Nunavut Planning Commission

From: The Qikiqtaaluk Wildlife Board (QWB), and  
the Hunters and Trappers Organization (HTO) of Resolute Bay

#### **Background Information:**

Atlantic walrus are important to the nutritional, cultural and economic well-being and traditions of Inuit. They are also a vital component of the ecology of marine environments in Qikiqtaaluk Region.

Walrus are at risk to increasing industrial development in the Arctic because they are very sensitive to human disturbance. They are sensitive to noise, and the presence of humans and aerial, terrestrial and water vehicles and other equipment.

Walrus calving and post-calving areas are recognized as being important habitat where pregnant females and young walrus are very sensitive. Calves are born beginning in late May, and young walrus are dependent on their mothers for about two years after birth. Mature females may give birth only once every three years at most. Given their sensitivity and low reproductive rates, it is important that known calving and post-calving areas are given strong protection.

Walrus calving and post-calving areas have not been well documented scientifically, but some are well known to Inuit, and must be recognized and protected. Theis Walrus Calving and Post-calving is one such critical area. These areas are important to the maintenance of walrus populations, a major source of food for Inuit. if the Nunavut Land Use Plan is to protect and promote the well-being of all of Nunavut's residents as a primary purpose of land use planning under Article 11 of the Nunavut Agreement.

**Source of information:** Inuit Qaujimajatuqangit.

**Proposed Designation:** Limited Use

**Proposed Restrictions:**

**Prohibited Uses:** The following uses are prohibited:

- Mineral Exploration and Production;
- Oil and Gas Exploration and Production;
- Seismic testing;
- Disposal at sea;
- Obnoxious Land Use;
- Quarries;
- Hydro-electrical and related infrastructure;
- Linear Infrastructure;
- Tourism; and
- Related research except Non-exploitive Scientific Research

**Conditions:**

- No vessel may approach within five (5) km seaward of a walrus calving and post-calving area at any time during the year.
- When walrus are present, fixed wing aircraft must maintain a minimum vertical setback of 460 m (1500 ft) above ground level (AGL) while within 310 m (1000 ft) of a group of walruses. Helicopters should remain at altitudes greater than 910 m (3000 ft) AGL when traveling within 1,610 m (1 mile) of a group of walruses.
- When walruses are present, walruses must not be approached by terrestrial vehicles closer than 800 m (0.5 mile) while the vehicle remains out of sight of the walruses.
- Any project in Nunavut that may violate these conditions is prohibited.

**Proposed Boundaries of the Walrus Calving and Post-Calving Areas, East of Bathurst Island:**

Two areas along eastern Bathurst Island, as per the attached maps and associated shp files.

**Date:** February 10, 2023





**Submission QWB 2023-D-24**

**Updated from 2018 QWB Written Submission No. 13**

**2021 Draft Nunavut Land Use Plan**

**Polar Bear Denning, Emergence and Mating Areas**

To: The Nunavut Planning Commission

From: The Qikiqtaaluk Wildlife Board (QWB), and the Hunters and Trappers Organizations (HTOs) of Grise Fiord, Resolute Bay, Arctic Bay, Pond Inlet, Clyde River, Sanikiluaq and Hall Beach

**Background Information:**

Polar bears are an important part of Inuit cultural, nutritional and economic life. As a top predator, they are also critical elements in the functioning of Nunavut's marine ecosystem. Polar bears are currently listed as a species of special concern under the federal Species at Risk Act (SARA).

The polar bear harvest by Inuit of Nunavut is closely managed through a complicated co-management system, involving Inuit, the Government of Nunavut and the Government of Canada. Harvesting of female polar bears with cubs has been especially limited for many years, despite the fact that occasional harvesting of females and cubs has been traditional within Inuit society since time immemorial.

The 2021 draft Nunavut Land Use Plan (NLUP) provided conditional use protection to 40% of the areas described in this submission during workshops in all 13 communities in 2017-2018. During these workshops, HTOs worked to identify the most critical areas for polar bear denning and emergence, not just any and all areas. Some of the areas mapped in the 2021 Plan were not identified as the most critical denning and emergence areas described in the QWB-HTO workshops in 2017-2018, although it may be best to identify as many as possible, as long as the most important areas are included. The QWB calls on the final NLUP to add all of the areas identified on the attached maps.

Clear protection of denning females and their cubs must be protected to ensure their survival during and after emergence from their dens.

In our view, the discrepancy between government protection of females and their cubs from traditional Inuit activities and the unclear protection of females and their emergent cubs from non-traditional human land uses is highly imbalanced or biased. This discrepancy should be addressed in the final Nunavut Land Use Plan.

The QWB was encouraged by the following statements in the 2016 draft NLUP. Regarding polar bear denning areas, “[Although] the information provided to the NPC on polar bear denning areas was not sufficiently precise, ... this will be reviewed as new information comes to light” (page 28). And regarding Inuit Qaujimajatuqangit (IQ), “the Commission’s objectives are to: ... (f) Utilize both science and IQ to maintain or enhance the biological diversity of Nunavut and to promote the restoration and revitalization of depleted wildlife populations.” (page 26)

In this submission, the QWB presents precise and clear information, based on IQ, about specific Polar Bears Denning, Emergence and Mating areas in Qikiqtaaluk Region, so that these areas and protective conditions can be incorporated into the final Nunavut Land Use Plan.

Polar bear denning areas are important coastal habitats where females give birth and nurture their cubs, and where they often remain for days and weeks after the cubs emerge. Dens may be distributed over very large geographic areas.

Nevertheless, in some areas, polar bear denning is predictable from year to year and at higher density than in other areas. Such areas with predictable polar bear denning have also been found in parts of Svalbard (Larsen 1985), where the high elevation and rugged terrain is similar to that of much of Qikiqtaaluk Region, unlike that in lower elevation parts of Nunavut. In Qikiqtaaluk Region, Inuit hunters know where denning females are more predictable, known through their own observations and knowledge passed on from their elders and ancestors.

Cub survival is unlikely if dens are inadvertently disturbed before females emerge naturally, and also if human disturbance inadvertently causes separation of females from their cubs during the period following den emergence. Starvation of cubs and predation of cubs by male bears are risks when they become separated from their mothers, even for short periods of time outside their maternal dens. This could be exasperated through human disturbance.

Females may enter dens as early as mid-November and as late as early January. They remain in their dens, giving birth and nursing their cubs until they emerge usually in March and April. Females and cubs may then remain near their den sites for up to a month, hunting in nearby fiords or at nearby floe edges, but they may also move away if they are disturbed or if hunting near the denning area is not successful. Disturbance of hunting females and their prey (e.g., denning ringed seals) can jeopardize early cub survival.

In denning and emergence habitats that are used in most years, females and their cubs should be protected from human disturbance throughout these periods, and from long-term industrial damage to denning and emergence habitats.

Encounters between female polar bears and humans in these areas are especially dangerous, as the females must protect their young cubs at all costs. Therefore, limiting human access in critical denning and emergence habitats is also an issue of public safety.

Extensive sea-ice areas are used by mating polar bears from March to June. Male bears compete for and pursue females for long distances for days over several weeks. Violent conflicts occur between males. Humans must avoid mating areas unless they are being guided by knowledgeable Inuit. Some but not all mating areas may be near denning and emergence areas. We propose to designate one mating area north of Grise Fiord because of the high density of mating bears each year.

### **New Scientific Information**

Unfortunately, the above IQ may not have been sufficient to justify greater protection for denning and emerging females and their cubs. Fortunately, new supporting scientific information is now emerging out of Alaska. Rode et al (2018) found that females that remained in their dens 15 days longer than others produced more cubs than others. In an as-yet unpublished study, Andersen et al. found that the longer that cubs can remain with their mothers near their dens after emergences, their rates of survival increase markedly. The emergence period is important just as IQ teaches us. Owen et al. (2021) has estimated that within a closed den, aircraft had high probabilities of being detected by polar bears at distances  $\leq 1.6$  km, and ground-based sources had high probabilities of detection at distances  $\leq 0.8$  km. They concluded that noise from some industrial support vehicles was likely to be detected farther from dens than previously documented. Woodruff et al. (2022) found that human disturbance within 8 days of emergence caused females and cubs to depart the emergence area early, which could negatively impact cub survival. Although more research is still emerging these results tend to confirm IQ use to make the QWB's recommendations.

**Source of information:** Inuit Qaujimajatuqangit.

**Proposed Designation:** Conditional Use.

### **Proposed Restrictions:**

#### **Conditions:**

- During Ukiaksaaq (starting November 15), Ukiaq, Ukiuq and Upingaksaaq, Critical Polar Bear Denning, Emergence and Mating Areas must not be disturbed by any activities related to:

- Mineral Exploration and Production;
- Oil and Gas Exploration and Production;
- Quarries;
- Hydro-electrical and related infrastructure;
- Linear Infrastructure;
- Shipping; and
- Tourism without Inuit guides.
- In these Areas, any long-term projects related to these land uses must shut-down annually during these seasons.
- Once females or females with cubs are found to have emerged from a den, no aircraft, ground or snow vehicle, boat or human may approach the females or her cubs within 4 km for at least 14 days after they were first observed.
- No activities in other seasons related to these land uses may be developed if they may impact polar bear denning or emergence in these areas.
- Any project in Nunavut that would violate these conditions is prohibited.

**Proposed Community Areas of Interest - Polar Bear Denning, Emergence and Mating:**

See the attached maps and the associated shp files.

**References:**

Larsen, T. 1985. Polar bear denning and cub production in Svalbard, Norway. *Journal of Wildlife Management* 49: 320-326.

Owen, M.A. et al. 2021. Estimating the Audibility of Industrial Noise to Denning Polar Bears. *J. Wildl. Manage.* 85:384–396.

Rode, K.D. et al. 2018. Den phenology and reproductive success of polar bears in a changing climate. *J. Mammal.* 99:16–26.

Woodruff et al. 2022. Classifying the effects of human disturbance on denning polar bears. *Endangered Species Research* 9: 43–56.

**Date:** February 10, 2023.

