For office use only	
Date Received	Permit No.

CANADIAN WILDLIFE SERVICE PERMIT APPLICATION

NOTE TO RESEARCHERS

Without exception, all research within the NWT and Nunavut must be licensed. This includes work in indigenous knowledge as well as in physical, social, and biological sciences. For information on licensing for your project within the NWT, please refer to the Aurora Research Institute's Web site at http://www.nwtresearch.com. For Nunavut, visit the Nunavut Research Institute Web site at http://www.nri.nu.ca.

For Scientific Permits: Prior to issuing a Scientific Permit to Take, Salvage or Disturb Migratory Birds, CWS requires a copy of either an NWT or Nunavut Wildlife Research Permit; or an Aurora Research Permit/Nunavut Research Permit. Include a copy of either permit with this application or forward a copy to CWS upon receipt of it, or your CWS permit will not be issued.

Nunavut: In Nunavut your project will have to undergo screening by the Nunavut Impact Review Board. One of their requirements is that you obtain a conformity report from the Nunavut Planning Commission. Please ensure that you have done so.

To be completed by all applicants:

- ☐ New application
- ☒ Amendment/extension of existing permit

  Existing permit no. NU-SCI-14-01

Territory:

- ☐ NWT
- ☒ Nunavut

Anticipated project start date: 1 Jan. 2015

Anticipated project end date: 25 Mar. 2017

Type of permit applied for:

- ☐ Bird Sanctuary permit
- ☐ National Wildlife Area entry permit
- ☒ Scientific permit to take salvage or disturb migratory birds

Period of permit requested:

- ☐ 1 year
- ☐ 2 year
- ☒ 3 year

Please indicate by checkbox if your project is receiving federal government funding:

- ☐ No
- ☐ Polar Continental Shelf Project
- ☒ Yes/Other (please list)

Please indicate by checkbox if your project requires approvals/permits by any of the following regulators:

- ☐ DFO
- ☐ NRCAN
- ☐ INAC
- ☐ Parks Canada
- ☒ NWT or Nunavut Water Board
- ☐ NEB

1. CONTACT INFORMATION

Applicant name and mailing address Mike Janssen and Grant Gilchrist NWRC, Carleton University 1125 Colonel By Dr. Ottawa, ON, K1A 0H3		**Fax** 613-998-0458 **Phone** 613-998-7364 (Grant)
Field supervisor Grant Gilchrist	**E-mail address** michael.janssen@ec.gc.ca grant.gilchrist@ec.gc.ca	**Phone** 613-991-9973 (Mike)

Total number of personnel covered by application: 6-9

2. SUMMARY PROJECT INFORMATION

Project title:

Community – Based Monitoring of Sea Ice and Eider Duck Populations around the Belcher Islands, Nunavut

Project objective: (concise statement of purpose and goals)

Comprehensive coverage of the different oceanographic regimes will be important in understanding how changing sea ice conditions are influencing the large scale distribution and abundance of eider populations. We will integrate data from time lapse monitoring, satellite imagery of ice conditions, local knowledge, and foraging behavior into a computer model to assess the influence of different environmental regimes and harvest rates on eider populations. This will also help determine, 1) when and where eider ducks are most vulnerable to starvation 2) How water salinity and ice conditions influence eider movement and use of Polynyas. We are also interested in measuring the contaminant and parasite loads in eiders over-wintering in the Belcher Island Archipelago, and assessing how these levels influence eider health.

Project description: (non-technical summary; 300 words or less; describe purpose, nature and occasion of all activities; include the anticipated intensity of vehicle use)

We will be using time lapse photography, high resolution satellite imagery and oceanographic monitoring (salinity meters and tide current meters) at several sites to quantify wildlife abundance and behaviour in relation to the ice data.

Oceanographic monitoring will take place from January – March, and automatic time lapse photography stations will be set up from January – June to capture ice break-up. These project elements are part of a long-term community-based monitoring project, and will be executed by local hunters in consultation with a biologist.

We plan to catch 35 common eiders and attach a small GPS tag to the feathers on the back of the eiders. The units will fall off the eiders within 2-3 weeks of attachment and the GPS data will provide detailed information on movement in relation to ice conditions.

We will employ local hunters to collect up to 60 eiders at polynyas around the archipelago. These eiders will be frozen and sent to the National Wildlife Research Centre in Ottawa for contaminant and parasite analysis.

Teams of 3-6 people (1-2 biologists, 2-4 Inuit guides) will participate in each element of the study. Travel to the base camp, and from camp to polynyas and leads, will be by snowmobile. Teams will stay at the camp for approximately 1 week at a time, returning to Sanikiluaq periodically to resupply food and fuel. Oceanographic monitoring, eider collections will take place at Agiararaluit, Lucassie Island polynya, and Quipaluq polynya, as well at several floe edge habitats used by eiders. GPS deployments will occur at Agiararaluit polynyas.

All time lapse photography and eider handling and hunting will occur within the Belcher Islands Archipelago. Oceanographic monitoring will also occur along the coastline in between Chisasibi, Kuujjuaraapik, Umiujaq and Inukjuak.

See attached project description for more details**.

NOTE: *A full project description should accompany this application.*

Activities related to project proposal: (check as many as apply)

☒ Scientific research	☐ Ground surveys	☐ Storage of fuel
☐ Tourism, non-commercial	☐ Aerial surveys	☐ Camp construction
☐ Tourism, commercial	☐ Winter road	☒ Use of firearms
☐ Use of boats	☐ Commercial harvest	☐ Use of explosives
☐ Use of aircraft	☐ Cruise ship	☐ Seismic exploration
☐ Use of off-road vehicles	☐ Drilling activities	☐ Mining activities
☒ Other (please specify):	use of snowmobile	

Are you applying to kill, salvage or otherwise interfere with migratory birds (e.g. take blood, transmitter implant, etc.)?

☒ Yes ☐ No

If yes, provide details, including specie(s) of bird, number and method. Indicate whether the approval of an animal care committee has been received and include the name of the committee.

We will employ experienced hunters to collect up to 60 Common Eiders using 12 ga shotguns and bird shot. We will collect both males and females.

**We will catch 35 common eiders with a salmon gillnet suspended in the air. This method captures the eiders without harming them and we have used it in the Belcher Islands previously. We will attach a small GPS tag to the feathers on the back of the captured common eiders. The tags weigh 18g (<1% of the body mass of a Common Eider), and will be attached to female eiders by taping the unit to their dorsal feathers, approximately 5 cm above the uropygeal gland, using waterproof, cloth-backed Tesa tape. Data will be received via remote downloadable GPS receiver stations and the units will fall off the eiders within 2-3 weeks of attachment.

We have submitted an Animal Care Committee approval, but have not yet received approval.

Do you plan to carry firearms?

☒ Yes ☐ No

If yes, please describe number, type and purpose of firearms.

Bear protection - Remington Marine Magnum 12 gauge shotguns, 1 per person

3. PROJECT LOCATION

Geographic place names and coordinates: (be as specific as possible; enter multiple coordinates for activities occurring over large area(s))

Location	Geographic Coordinates
Environment Canada Cabin	55° 49.361N, 79° 53.925W
Coastline near Inukjuuaq (Oceanographic monitoring only)	58° 28' 11"N, 78° 03' 01" W
Coastline near Chisasibi (Oceanographic monitoring only)	53° 49' 08"N, 78° 55' 49" W
Coastline near Kuujjuaraapik (Oceanographic monitoring only)	55° 16' 56"N, 77° 45' 39" W
Coastline near Umiujaq (Oceanographic monitoring only)	56° 30' 54"N, 76° 31' 01" W

NOTE: *A map document delineating activity centres and travel corridors, etc. is required and should accompany this application. Please submit shapefiles if available.*

Status of land upon which project will occur:

☐ Federal crown
☒ Inuit-owned or other private
☐ Territorial (commissioner's land)

4. OPERATIONAL AND ENVIRONMENTAL CONSIDERATIONS

Provide a summary of potential environmental impacts and proposed restoration plans and activities: (describe the effects of the proposed activities on land, water, flora, fauna; attach separate pages as necessary)

We will be conducting our research during the winter for a relatively short period of time (3 months). We will be using snowmobiles to travel to and from the camp and polynyas, white gas for cooking, and kerosene to heat the cabin. All of these fuels will be stored in appropriate containers to avoid leaks. MSDS and spill contingency plans will be provided to the field crew. Because the work will take place during the winter, fuel spills will be cleaned up before they permeate the snow and ice and impact the land or water.

Past QIA exemption #: Q09XN06
Nunavut Water Board licence: 3BC-GBI1114
NIRB File No.: 10YN058

List of equipment and fuel to be used: (include aircraft, vehicles, boats, generators, large tent structures, various types of fuel, etc; indicate proposed containment strategies for all fuels; attach separate pages as necessary)

Equipment / Fuel	Size / Amount	Proposed use / Containment
Snowmobiles/gasoline	4	travel to/from hunting grounds/jerry cans
Cook stove/white gas		cooking/metal canister
Heater/kerosene		heat cabin/metal canister

NOTE: *Please submit a copy of a spill contingency plan, if available, with this application.*

Waste disposal: (describe any wastes that may be produced, e.g. garbage, grey water, sewage, hazardous waste, and proposed disposal methods; attach separate pages as necessary)

Type of waste	Approx. amount produced	Proposed disposal method
Garbage	20lbs	Return to Sanikiluaq by snowmobile
Greywater	10L/day	sump >150 m from any water
Sewage	2L/day	sump >150 m from any water

5. POTENTIAL ADVERSE EFFECTS TO SPECIES AT RISK

PLEASE NOTE:

- *You should consider species at risk legally listed on the Species at Risk Act (i.e. on Schedule 1) and those under consideration for legal listing, such as those designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).*
- *Refer to species status reports and other information on the Species at Risk Registry at www.sararegistry.gc.ca for information on specific species.*

Identify Species at Risk found within your proposed project area.

Beluga whales, listed as endangered in the Eastern Hudson Bay by COSEWIC, but not listed under SARA, occur in the area during the winter.

List any potential adverse effects that your project may have on the species, its habitat and/or its residence. All direct, indirect and cumulative effects should be considered.

We do not anticipate any effects on Beluga Whales or their habitat, as our research will be carried out over a short period of time and have a very small impact on the land. There is the most chance of a small fuel spill near our cabin, which is located far from the marine habitat used by Belugas.

If potential adverse effects are identified, list mitigation to avoid or lessen those effects.

When possible, refueling of snowmobiles will be done away from sea ice and open water to avoid a fuel spill.

List monitoring measures to determine the effectiveness of mitigation and/or identify where further mitigation is required.

6. CONSULTATION

List local community representatives who have been contacted about your proposed activities: (include community groups, local businesses, schools, etc.; state how they are participating in your activity, if at all (e.g. providing advice, supplying goods, hired to assist you, etc.))

1. Representative name:	Lucassie Arragutainaq
Name of group represented:	Sanikiluaq Hunters and Trappers Association
Address / phone / fax:	General Delivery, Sanililuaq, NU, X0A 0W0/ (867) 266-8709
How contacted and date:	Contacted by email November, 2014
Participating?	☒ Yes ☐ No
If yes, how?	

The community of Sanikiluaq has been involved with the project since its inception in 1998. All work is conducted in direct collaboration with experienced Inuit hunters and in close consultation with the local Hunters and Trappers Organization, whom have identified this research as an important priority for local co-management efforts.
We will be accompanying Inuit guides to polynyas to set up equipment. We hope to hire them through the HTA.

2. Representative name:	
Name of group represented:	
Address / phone / fax:	
How contacted and date:	
Participating?	☐ Yes ☐ No
If yes, how?	

3. Representative name:	
Name of group represented:	
Address / phone / fax:	
How contacted and date:	
Participating?	☐ Yes ☐ No
If yes, how?	

Applicant Grant Gilchrist
(Print Full Name)
Signature **Date** 24 November 2014

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(Print Full Name)
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