NPC 151052: Assessing oil related contaminants in birds in Nunavut

Close

Proposal Status: Conformity Determination Issued

Overview Documents Questionnaire

Project Overview

Type of application: Amendment

Proponent name:

Jennifer Provencher

Proponent company:

Environment and Climate Change Canada

Project Description:

Building on previous work, our objective is to assess current levels of oil-related contaminants in species of seabird eggs as part of a large scale assessment of contaminants in relation to shipping traffic. In the future it is expected that shipping and boat traffic in Baffin Bay/Davis Strait will increase, while in the Hudson Bay region we expect some vessel traffic to decrease. While we have learned much about how ecosystems can be affected by oil spills in some regions, there is little data on oil exposure and the potential effects of oil-related contaminants in northern ecosystems. We aim to start collecting a wider range of species eggs in regions that are experiencing different levels of shipping to examine how the current levels of oil exposure, and archive samples in the case of a future oil spill. This will occur alongside our legacy contaminants monitoring so that we can better understand global and local patterns. Studies of seabirds, including thick-billed murres (Uria lomvia), northern fulmars (Fulmarus glacialis), common eiders (Somateria mollissima), black-legged kittiwakes (Rissa tridactyla), and black guillemots (Cepphus grylle) have shown that seabirds are affected by a number of contaminants in the Arctic region. To date most work on contaminants in seabirds has focused on legacy contaminants, including pesticides and flame retardants, but there are a suite of chemicals of emerging concern in the Arctic that have only been addressed in a limited number of species or at a few colonies in the Arctic region. Preliminary studies of seabirds at near Qikiqtarjuaq and Nunatsiavut has shown that seabirds are also exposed to plastic pollution and oil-related contaminants as well. Currently in the Canadian Arctic, there are low levels of shipping and oil exploration related activities as compared to many other regions. As offshore oil and gas activities might proceed in Baffin Bay and Davis Strait, there

is a need to assess the current levels of oil-related contaminants exposure in marine species, and the potential effects. A Strategic Environmental Assessment in the Baffin Bay-Davis Strait recently highlighted the need to assess how activities relating to oil and gas, and current levels of activities, are affecting local biota. This will include the collection of eggs with partners at various sites in Nunavut, including Arviat, Iqaluit, Qikiqtarjuaq, Resolute, Nasurvalik (Tern Island), and Pond Inlet. We will collect eggs from the following species, based on their presence at each of the locations: -common eider -black guillemot -thick-billed murre -glaucous gull -black-legged kittiwake -northern fulmar -Sabine's gull -Arctic tern -Herring gull -Snow goose -Cackling goose -King eider -Iceland gull

Project Schedule

Start Date:

2025-06-01

End Date:

2028-10-01

Project Map

List of project geometries:

Id

Geometry

Location Name

19466

polygon

Arviat

19467

polygon

Iqaluit

19468

polygon

Qikiqtarjuaq

19469

polygon

Pond Inlet

19470

polygon

Resolute

19471

polygon

Nasurvalik

19472

polygon

Cambridge Bay

NPC Planning regions:

No Approved Plan

North Baffin

Keewatin

Project Land Use and Authorizations

Project Land Use:

Scientific Research

Scientific Research

Licensing Agencies:

Government of Canada - Canadian Wildlife Service

Government of Canada - Canadian Wildlife Service

Government of Canada - Canadian Wildlife Service

Government of Nunavut - Department of Environment

Government of Nunavut - Department of Environment

Material Use

Equipment:

Type

Quantity

Type

Use

Twin Otter

1

large

Twin Otter or boat will be used to access the sites, depending on the needs of the site.

Boat

1

small

Local small craft will be used to access sites.

Fuel Use:

Type

Container

Capacity

Use

No data found

Hazardous Material and Chemical Use:

Type

Container

Capacity

Use

No data found

Water Consumption:

Daily Amount (m^2)

Retrieval Method

Retrieval Location

0

Waste and Impacts

Environmental Impacts:

No waste will be produced at the sites

Waste Management:

Waste Type

Quantity Generated

Treatement Method

Disposal Method

No data found