

Proposal Status: Conformity Determination Issued

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Project Overview

Type of application: **New**

| | |
|-----------------|--------------|
| Proponent name: | Clare Kines |
| Company: | Parks Canada |

Schedule:

| | |
|-----------------|------------|
| Start Date: | 2020-08-01 |
| End Date: | 2022-11-30 |
| Operation Type: | Annual |

Project Description:

This proposal is a three year pilot research project designed to begin establishing baseline data on underwater noise, within Tallurutiup Imanga National Marine Conservation Area (TINMCA). TINMCA is currently in the establishment phase but has been operating since the signing of an Inuit Impact Benefit Agreement in August 2019. The pilot project will involve deploying four hydrophones in strategic spots within TINMCA in the area of Arctic Bay. This work would contribute to better understanding human generated noise and its effects on marine life and ocean health within the NMCA. This pilot underwater noise study is consistent with similar studies done in the Arctic (e.g. around Pond Inlet) and in Canada. It is expected that the result of this study would contribute to the overall understanding of human generated noise on marine wildlife. Once the data is analyzed, the results will be shared with the Hunter and Trapper Organization of Arctic Bay, the Hamlet, and the community at large. The following suggested locations have been discussed with Arctic Bay Inuit Stewards of the Qikiqtani Inuit Association (QIA), Department of Fisheries and Oceans scientists, and experts in underwater acoustics to help determine their suitability: 1) Adam's Sound, the approach to the community of Arctic Bay; 2) Strathcona Sound, the approach to the Nanisivik Naval Facility; 3) near Kakiak Point on Admiralty Inlet, an important area for the harvest of Narwhal by Arctic Bay Community members, and an important area of Narwhal habitat, although a Steward felt that there may be some reservations locally about the location, and felt further consultation necessary; and 4) the area in the vicinity of Sannirugaaluit (Yeoman Island), an area that should have less anthropogenic underwater noise. The exact locations will be confirmed after further consultation with the community, including Arctic Bay Hunter and Trapper Organization, the Hamlet, and QIA. Discussion with QIA is also ongoing to explore potential partnership between Parks Canada and the Inuit Stewards regarding the deployment and recovery of the hydrophones. 2020 is an important year to start baseline data, as Covid-19 has reduced the amount of ship traffic that should be present in the Arctic. If there is any significant change in locations, or substantive changes in the project after consultation, the revision will be brought back to Nunavut Planning Committee. The four hydrophones that are to be deployed are Micro Aural hydrophones (Multi-Electronique Ltd.), locations 1-4 on the map. These hydrophones will be deployed annually over three years during the open water season. They would be deployed in waters less than 30 metres deep, using an anchor and surface buoy (see below photos of the hydrophones and quick release devices). At the earliest, initial deployment would take place in mid-August and the sites revisited in 5 week intervals (in late September and early November). An alternative mooring may be used, consisting of a subsurface buoy, and a Vemco Ascent acoustical release, depending on circumstance. In the case of the subsurface mooring, an anchor made of local rock with an eye bolt would be left behind. The acoustic devices also obtain data on tagged Greenland sharks as part of an ongoing study by Nigel Hussey of the University of Windsor. He has been using similar devices throughout Baffin Bay, including around Pond Inlet, Clyde River and Qikiqtarjuaq, to monitor the movement of 180 Greenland sharks in order to support sustainable fisheries management and development of community fisheries. Nigel Hussey's research is conducted through the support of local HTOs, the Government of Nunavut and the Nunavut Fisheries Association with relevant licenses to fish obtained through the Department of Fisheries and Ocean. Basically, Nigel Hussey will lend Parks Canada some of his Vemco Ascent acoustical release to make the underwater noise baseline pilot project more efficient, while collecting data on Greenland sharks for him. Hydrophones record sound, they do not make sound. They are passive and remain in one spot. Further, surface floats to which the hydrophones are attached are small vinyl floats that will not cause damage to boats and create no risk to wildlife. This technology, although relatively new, is in place throughout the Arctic and the rest of Canada and has been used by government and universities. During the 2nd visit the data would be

downloaded and the battery recharged. The equipment will be removed from the site during the 3rd visit in late October / early November. Dates may be adjusted to account for ice and other local conditions. The hydrophones are set to sample at 96,000 Hz and record at 15 minutes out of each hour, for approximately five weeks each deployment. It is important to note that the hydrophones record sounds only, and do not make any sound. No camp is planned, visits will be by boat. Vessels utilized to deploy and recover the hydrophones would be welded aluminum runabouts, not exceeding 28 feet, and powered by outboard motors. It is anticipated that either Arctic Bay Adventures' boat, or one used by the Inuit Stewards would be used, but circumstances may dictate similar boats being used. Social distancing and other Covid-19 protective measures will be followed as recommended by the Nunavut Health Authority and the Arctic Bay community council (e.g. use of personal protective equipment). Data obtained would be recordings of underwater noise, including marine mammals, benthic organisms (animals that live on the bottom of the ocean), ship traffic, small vessel traffic, and ice. Data will be used to establish the baseline of underwater noise within TINMCA, in proximity of Arctic Bay. It is expected that the baseline data could help better understand the impact of underwater noise on, marine mammals within TINMCA, and could be used to complement the work on similar initiatives conducted in Nunavut waters and elsewhere. .

Personnel:

| | |
|----------|----|
| Persons: | 3 |
| Days: | 40 |

Project Map

List of all project geometries:

| ID | Geometry | Location Name |
|------|----------|--|
| 6354 | polygon | Area within Hydrophone #1 will be placed. Adam's Sound, approaches to Arctic Bay |
| 6355 | polygon | Area within Hydrophone #2 will be placed. Strathcona Sound, approaches to Nanisivik |
| 6357 | polygon | Area within Hydrophone #3 will be placed. Kakiak Point area, important location for Arctic Bay |
| 6358 | polygon | Alternate location for an area within Hydrophone #3 will be placed. |
| 6359 | polygon | Area within Hydrophone #4 will be placed. Admiralty Inlet, waters around Yeoman Island. |

Planning Regions:

Kivalliq

Affected Areas and Land Types

- Inuit Owned Surface Lands
- Municipal
- Settlement Area
- North Baffin Planning Region

Project Land Use and Authorizations

Project Land Use

- Marine-Based Activities
- Marine-Based Activities
- Scientific Research

Licensing Agencies

NR: Scientific Research Licence

Other Licensing Requirements

No data found.

Material Use

Equipment

| Type | Quantity | Size | Use |
|---------------------------|----------|--|---|
| Hydrophone Micro Aural | 4 | Diameter: 8 cm (3 in.) - Length: 45 cm (18 in.) - weight: 6 lbs. - Water Weight: 2 lbs. | Collecting data (underwater noise recordings). AirMoored either with a surface buoy (vinyl fishing float 12 inch diameter or less and anchor, or a subsurface buoy and acoustic release. |

| | | | |
|---------------------------------|---|---|---|
| Acoustic Release - Vemco Ascent | 4 | Diameter; 81mm (3 in) – Length: 465mm (18 in) – Air weight: 6 lbs. – water weight – 1.75 lbs. | Recovery of hydrophone if subsurface mooring is used. |
|---------------------------------|---|---|---|

Fuel Use

| Type | Container(s) | Capacity | UOM | Use |
|----------|--------------|----------|--------|---|
| Gasoline | 1 | 364 | Liters | Fuel for boat. None cached. Fuel within boat's fuel tanks only. |

Hazardous Material and Chemical Use

| Type | Container(s) | Capacity | UOM | Use |
|-------------------|--------------|----------|-----|-----|
| No records found. | | | | |

Water Consumption

| Daily Amount (m³) | Retrieval Method | Retrieval Location |
|-------------------|------------------|--------------------|
| 0 | | |

Waste and Impacts

Environmental Impacts

n/a

Waste Management

| Waste Type | Quantity Generated | Treatment Method | Disposal Method |
|----------------|--------------------|------------------|-----------------|
| No data found. | | | |

See All (6)

Categories

Application form attachment

- Equipment (2)
- Project description (4)

15714 - uAURAL_en.pdf

Category: Application form attachment - Equipment

Received: 2019-04-03

Originator: Clare Kines

Public Registry ID: 15714

Document Size: 516.17 Kb

17807 - ascent - AR Data sheet.pdf

Category: Application form attachment - Equipment

Received: 2020-05-22

Originator: Clare Kines

Public Registry ID: 17807

Document Size: 757.56 Kb

17883 - Hamlet of Arctic Bay consult letter - eng.pdf

Category: Application form attachment - Project description

Received: 2020-07-14

Originator: Clare Kines

Public Registry ID: 17883

Document Size: 530.32 Kb

17884 - Hamlet of Arctic Bay consult letter - inu.pdf

Category: Application form attachment - Project description

Received: 2020-07-14

Originator: Clare Kines

Public Registry ID: 17884

Document Size: 514.05 Kb

17885 - Consultation letter HTO - Inu.pdf

Category: Application form attachment - Project description

Received: 2020-07-14

Originator: Clare Kines

Public Registry ID: 17885

Document Size: 513.84 Kb

17886 - Consultation letter HTO - Eng.pdf

Category: Application form attachment - Project description

Received: 2020-07-14

Originator: Clare Kines

Public Registry ID: 17886

Document Size: 530.35 Kb



NORTH BAFFIN QUESTIONNAIRE

GENERAL

Environmental Protection:

s3.13.8: The applicant undertakes to prevent any new occurrences of pollution, garbage and contamination at the site of the development.

YES

Removal of Fuel Drums:

s3.13.8: The applicant undertakes to remove all drums safely from the site and dispose of the drums in a safe manner.

YES

New Site Restoration and Clean Up:

s3.13.1 and Appendix H, s1: The applicant undertakes to clean up the site and restore the site to its natural condition to the greatest extent possible.

YES

Old Site Restoration and Clean Up:

s3.13.2: The applicant undertakes to clean up the site and restore the site to its original condition to the greatest extent possible, including any work required due to the applicant's action prior to this application.

YES

Low-Level Air Flights:

Appendix H, s3: Will the applicant avoid all low-level flights?

YES

Caribou Protection Measures:

s3.3.7 and Appendix D: Will the applicant comply with the Caribou Protection Measures outlined in section 2.4.6 and in Appendix D?

YES

Caribou Water Crossings:

s3.3.7 and map: Will the applicant avoid, between may 15 and September 1, to construct any camp, cache any fuel or conduct any blasting within 10 km of any Designated Caribou Water Crossing identified

YES

Polar Bear Denning Areas and Walrus Haul-outs:

s3.3.8: Will the applicant keep its activities away from any polar bear denning area or walrus haul-out?

YES

HERITAGE RESOURCES

Reporting of Archaeological Sites:

s3.11.3 and Appendix H, s2 and s8: Will the applicant immediately report the discovery of all suspected archaeological sites to the Department of Culture, Language, Elders and Youth (GN)?

YES

SCIENTIFIC RESEARCH

Scientific Research:

s3.9.3: Does the project proposal involve scientific research?

YES

If yes, will the applicant integrate all available and relevant local and traditional knowledge when conducting its research?

YES

Consultation with Nunavut Research Institute:

s3.9.5: Has the applicant consulted with the Nunavut Research Institute about research topics that would benefit or interest local residents?

NO

ii. If no, explain why.

null

Local Services and Local Employment:

s3.9.4: Will the applicant rely on local services and employment where possible?

YES

i. Describe the services retained and the people to be employed.

Equipment will be deployed and recovered in partnership with the Uattijit (Guardians for Tallurutiup Imanga NMCA) who are fully employed by QIA. All are beneficiaries of the Nunavut Land Claims.

Communication on Scientific Research:

s3.2.8: The applicant will, at minimum, translate a summary of its work into Inuktitut and communicate with communities using language that is clear and non-technical. The results of all scientific re

YES

MARINE AND TERRESTRIAL TRANSPORTATION**Corridor:**

s3.5.11, s3.3.5.12: Does the proposal consider the development of a transportation and/or communications corridor?

NO

Code of Good Conduct for Land Users:

Appendix H: The applicant undertakes to adhere to the code of Good Conduct at all times.

YES