



## **NIRB Application for Screening #126155 Monitoring Program Pilot in Ahiak MBS**

**Application Type:** New

**Project Type:** Scientific Research

**Application Date:** Wednesday, March 19, 2025

**Period of operation:** from 2026-02-22 to 2027-07-24

**Project Proponent:** Danica Hogan  
Canadian Wildlife Service  
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Canada  
Phone Number:: 867-669-4754, Fax Number::

## DETAILS

### Non-technical project proposal description

English: Danica Hogan, Canadian Wildlife Service, 5019 52 St, PO Box 2310, Yellowknife, NT, X1A2P7, Danica.Hogan@ec.gc.ca, 867-669-4754. Number of personnel and/or visitors that will be covered under the permit: 5-6 (to be determined but no more than 6)

**Project Objectives:** Ahiak Migratory Bird Sanctuary is one of the pilot sites for developing and implementing monitoring protocols as part of the Ecological and Conservation Monitoring Program (ECOMaP), a program aimed at monitoring the status and effectiveness of the Protected and Conserved Areas Network managed by Environment and Climate Change Canada. The goal of this project is to develop and implement monitoring protocols for priority species as identified by the Ahiak Area Co-Management Committee (ACMC), which includes species at risk, light geese, and other birds. Arctic PRISM (Program for Regional and International Shorebird Monitoring) is one of the few survey protocols that monitor shorebirds, and other non-colonially nesting birds, in the Arctic. The goal of PRISM surveys is to find out which bird species are there, if they are breeding or not, how many there are, and what habitats they are using. Adopting this protocol inside the MBS will enable us to compare population trends inside the MBS with those generated for the same region outside the MBS, which will provide valuable information about the value of the MBS to several groups of birds. Additionally, we intend to develop and implement sustainable long-term monitoring protocols to assess light goose use of the MBS using aerial survey techniques, such as colony perimeter mapping and transect-based aerial surveys. Light goose colony trends and use of the MBS is the primary concern of the Ahiak ACMC and information from these surveys will be used to help inform management decisions. In 2025-2026, we plan to focus on project development and fuel caching for a summer 2026 field season. In 2026-2027, we plan to focus on conducting on-the-ground PRISM surveys for shorebirds and landbirds, and aerial surveys for light geese.

**Project Location:** Ahiak Migratory Bird Sanctuary We plan to base the field work out of pre-existing camp and fuel cache sites: Karrak Lake (67 14.230N, 100 15.550W) or Perry River Cabin (67 42.400N, 102 11.117W), with fuel caches at these locations and other caches located within the MBS based on field logistics, likely at other pre-existing sites such as Ellice River Cabin (67 42.499N, 104 08.349W) or McNaughton Lake (67 21.690N, 98 4.110W). We will provide other fuel cache location information when available and prior to caching. Exact survey locations are still to be determined as the protocol is in development. All survey locations will be within MBS boundaries and we will provide the Ahiak ACMC with updates as the project develops.

**Proposed date and duration of visit to each protected area:** -Fuel caching: 1-2 weeks in March/April 2026, pending weather -Field work: 2-3 weeks in June/July 2026, pending weather

**Method of Transportation:** For fuel caching, drums will be delivered via Twin Otter aircraft. At the end of the project, drum clean up will also be done via Twin Otter aircraft. Projected number of hours is to be determined.

**During field work, personnel will transit to and from survey locations via helicopter (Bell 407 or similar). The light goose surveys will also use the same helicopter. Projected number of hours is to be determined.**

**Summary of Activities and Rationale:** The Arctic PRISM (Program for Regional and International Shorebird Monitoring) protocol for surveying shorebirds and other non-colonially nesting birds consists of rapid ground surveys at a random sample of plots that are accessed by helicopter. Surveys involve two observers walking systematically over a 12-hectare plot and recording all birds and nests they see. This allows us to determine bird density (how many there are), species diversity (how many different types of birds there are), which habitats they are using, and how a given nesting season may compare to previous years. Travel between survey plots will be done via helicopter, and otherwise the work is conducted on foot. Surveys typically take 1-2 hours to complete per plot, and plots are only visited once in a given season. Results from these surveyed plots will be used to calculate density estimates of shorebirds and other non-colonial birds within the MBS and allow us to compare population trends inside the MBS with survey data collected outside the MBS in the same region. This will provide valuable information about the value of the MBS to several groups of birds, and allow us to assess the health of the MBS as compared to areas outside the MBS. We also intend to develop and conduct surveys to assess light goose use of the MBS using aerial survey techniques. Goose survey methods are still being finalized, but the general techniques involve goose colony mapping via helicopter flown at a height so as to minimize disturbance to the geese, and transect-based aerial surveys flown at heights that minimize disturbance to the geese. The Ahiak ACMC identified light goose colony trends and use of the MBS as a priority and information from these surveys will be used to help inform management decisions.

**Future plans within the protected area:** With fuel caching taking place in spring 2026, we plan to

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Inuinnaqtun: Danica Hogan, Kanatameoni Umayolikiyit Ikayoktit, 5019 52 Akotani, Titigakvikmi Kiyokut 2310, Yalonaemi, Nonateami, X1A2P7Kagitaoyami Titikilvea: Danica.Hogan@ec.gc.ca-miHivayaota: 867-669-4754. Kaveonigit havaktut / polaktolunet ilagiyaoneaktut ilagani piyonaotip: 5-mit 6-mut (nalonaektaoneakok kiheani 6-nit amigaetkiyaolimaetut) Havami Piyotaoyut: Aheakmi Tikikpaktonik Tikmiyanik Unageokhikvea ataohik hivoleoyok inikhak pivaleaniganik atoliniganiklo amigoyotinih havaohiknik ilagiyanik Avataoyomik Unageokhikvikmiklo Amigiyotinih Havami (ECOMaP), havak amigiyotikhak kanoginiganik nakogitaoniganiklo Monagiyaoyok Ilipkamayaoyolo Nonani Havakatiget monagiyaoyok Avatilikiyinit Hilaplo Alagukniganik Kanatami. Iniktigakhak umani havami pivaleayagani atoligeaganilo amigoyotinih havaoheoyut ihomagiyoaloaktonik umayonik tikoaktaoyonik Aheakmi Nonami Monagikatiget Kamiteoyomit (ACMC), ilakaktonik umayonik ihomalogiyaoliktonik,kagoet, ahelo tikmiyat. Ukeoktaktomi PRISM-mi (Havak Nonani Hllakyoamilo Takyup Hinani Tikmeat Monagiyoaniginik) ataohik ikitoni naonaeyaotini havaohikmik amigiyotaoyok takyup hinani tikmiyanik aheniklo ataotimeovagitut ivayut tikmiyat Ukeoktaktomi. Iniktigakhak PRISM-mi naonaeyaotini naonaegeaggani kitut tikmeyat umayut talvaneniginik, ivanikata imanaklunet, kaveoniginik, kitoniklo nonanik atokmaga. Atolikniga uma havaoheop ilagani MBS-mi naonaeyaktineagatigut amigaenigini kanogilivaleanginik iloani MBS-mi ukonanilo havagiyaoyut talvani nonami aheanit MBS-mit, pipkaeneaktomik atoknikateaktonik hivonikhiyotinih atoknikakniganik MBS-goyup atahenaogitomi timeani. Ilageagotikha, pivaleayomayogut atoliklogolo atokhimaginaktokhak hivhonikhami amigiyotinih havaoheoyut ilitokhageagani ulut atoknigit MBS-mik atoklota tikmeakut naonaeyoatinik notaonikhanik, amigaeniginik homeniginik nonaoyami avatiknogakviknilo tikmeakut naonaeyaotinih. Kagoet ataotimeoyut kanoginigit atokniginiklo MBS-mik ihomalutaaloaktok Aheakmi ACMC-mi hivonikhiyotilo ukonanga naonaeyaotinit atoktaoneaktut ikayogeagani kaoyimalotik monakhiiyt ihomaleoknigini.2025-mit 2026-mut, upalogaektogut ihomagiyaagani havami pivaleaniganik okhokyoaniklo kaneyotinih aoyami 2026-mi manikami ilagani ukeop.2026-mit 2027-mut, upalogaektogut havagiyaagani manikami PRISM-mi naonaeyaotit takyup hinani tikmiyanik manikamilo tikmiyanik tikmeakolo naonaeyaoeyomayogut kagoknik.Havap Inikha: Aheakmi Tikikpaktut Tikmiyat Unageokhikveani Upalogaektogut inikhakageagani manikami havakhak atokhimayoni iglukpakakvikmi okhokyoaniklo kaneveoyoni inikhani: Karrek-mi Tahikmi (67 14.230-Tunungani, 100 15.550-Oalikheani) Kukyoamilunet Iglukpakni (67 42.400-Tunungani, 102 11.117-Oalikheani), okhokyoanik kaneveoyoni ukonani inikhani aheniklo kaneveoyoni talvani MBS-mit inigiyani manikami nalonaopkotini, ahenilo atokhimayugaloani inikhani ayikotaenik Kunayokmi Iglukpaop (67 42.499-Tunungani, 104 08.349-Oalikheani) McNaughton-milunet Tahikmi (67 21.690-Tunungani, 98 4.110-Oalikheani). Pipkaeneaktogut ahenik okhokyoanik kaneveoyut inigiyaenik hivonikhiyotit kahakpata kanegeaktinagilo. Homenigit naonaeyaevit inigiyaet nalonaektaoyageakaktut huli havaohikhak ihoakhaktaohimakmat. Tamaeta naonaeyaevet inigiyaoyut ilonaneneaktut MBS-mi kikligiyaeni, pipkaeneaktogolo ukoniga

Aheakmi APMC-konik kanogilivaleayotini havak ihoakhaktaovaleanigani. Atoliktayomayok ubloani hivitoni gani klo atoni polakveoyup monagiyoayomi nonami: -Okhokyoanik kanevikhat: Ataohikmit malguknut saneonikni March-mi/April-milo 2026-mi, hilakeomakpat - Manikami havakvikhak: Malguknit Pigahunut saneonikni June-mi/July-milo 2026-mi, hilakeomakpat Aolagotikhat: Okhokyoat kaneyokhani, katakyoet akyaktaoneaktut malgolinoakut tikmeakut. Inikat havak, katakyoet kiklimaktiknigit havagiyaoneaktolo Malgolinoakut tikmeakut. Nahogiyaoyut ikaknigit nalonaekneakut. Manikami havaktilogit, havaktut avatiknogakneaktut talvuga talvangalo naonaeyaoviknit inigiyaoyunit halikaptakut (Bell 407-mik ayikotaniklunet). Kagoknik naonaeyaotit atokneaktolo tavomiga halikaptamik. Nahogiyaoyut ikaknigit nalonaekneakut. Naetomik Okaoheoyhut Huliyotit Huklo Atoktaoniginik: Ukeotaktomi PRISM-goyok (Havak Nonami Hilakyoamilo Takyup Hinani Tikmiyanik Amigiyotit) havaohikhak naonaeyageagani takyup hinani tikmiyanik aheniklo ataotimoeyotoni ivavaktonik tikmiyanik pikaktok kilamik manikami naonaeyaotini kitonilika inikhani tiktaovaktonik halikaptakut. Naonaeyaot ilakaktok malguknik ihivgeokhiyiknik pihokhotik ihoakhagekhiyomihomi 12-hectere-yomi nonami naonaeyakhogit tamaeta tikmiyat ubloelo takoyamiknik. Una naonaegotigiyakut amigaenginik tikmiyat (kaveoniginik talvani), umayut amigaenigit (kaveoniginik alatket tikmiyat talvani), kitut nunagiyaoyut atoktaenik, kanoklo ivaveoyok ilagani ukeop naonaeyageagani atoktakhimayoni ukeoni. Aolagotit akungani naonaeyaevit nonat halikaptakut tiktaovakneaktut; aheagut, havak tiktaoneaktok pihoklotik. Naonaeyaotit ataohimit malguknut ikaknikni inikpakneaktut atoni inikhani, inikhat tiktaovakneaktut ataoheklotik ilaenani ukeop. Kanogiliyotit ukonanga naonaeyaktaoyonit inikhanit atoktaoneaktut nahaktaoyagani amigaeniginik nalaotakniginik takyup hinani tikmiyanik aheniklo katiyoetonnik tikmiyanik iloani MBS-mi talvani nonami. Una pipkaeneaktok atoknikateaktonik hivonikhiyotiknik atolakniginik MBS-mik ataoheonaogitomi ikayoktigenit tikmiyalikiyonit pipkakmatigolo atolaligeagani aneaknaeniga MBS-goyup ihomagikpata alat nonat aheani MBS-goyup. Piyomayogolo naonaeyaptikni ilitokhageagani kagut atokniginik MBS-mik atoklota tikmeakut naonaeyaotini notaonikhanik. Ulut naonaeyaknigit atoktaoyut iniktiktaohimaktut, kiheani atoktaoginaktut piyotikaktut ulut amigaeniginik nonaoyamut ileogakniginik halikaptakut kulvahiknikaklotik mikinikhamik kimalatigitagani ulut avatiknogagotaoyolo tikmeakot naonaeyaotit kulvahikneaktut kimalatigitpalagitagani ulut. Aheakmi APMC-mi tikoaktaoyut kagoet amigaenigit kanogileoknigit atoknigilo MBS-mik atokaktokhak Hivonikhiyotilo ukonanga naonaeyaotinit atoktaoneaktut kaoyimayomik monagiyeoyut ihomaleokpageagani. Hivonikhami upalogaeyaotit talvani monagiyaoyomi nonami: Okhokhanik kaneneakhotik upingami 2026, upalogaektogut havagiyaagani PRISM-mi hogayanik naonaeyaotini kagokniklo naonaeyaotini aoyami 2026-mi. Havaoheoyok naonaeyaotilo aolanikateakata, upalogaektogut atovageagani naonaeyaotit talimanit Kulinut ukeot natkagat, nahogilogit atolikoyaoyut Aheakmi APMC-konit kahakpatalo ihoakotikhat. Inikat, kigolik unipkak toneokhaktakoneaktok Aheakmi APMC-konut, Okhoktumi Agonahokatit Nanigeaktoktilo Katimayenut, Ikaloktuteamilo Agonahoaktit Nanigeaktoktilo Katimayenut.

## Personnel

Personnel on site: 6

Days on site: 21

Total Person days: 126

Operations Phase: from 2026-02-22 to 2027-07-24

## Activities

| Location                                | Activity Type             | Land Status | Site history                                                                                                                                                                                                                                                                                                                                                                                                                              | Site archaeological or paleontological value | Proximity to the nearest communities and any protected areas |
|-----------------------------------------|---------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------|
| Ahiak Migratory Bird Sanctuary Boundary | Researching               | Crown       | Land status of Ahiak MBS is a combination of Crown and Inuit Owned Surface Lands. We will be surveying approximately 70-75 sites within the boundaries of Ahiak MBS. Each survey site is 300m x 400m and will take 1-2 hours to complete. We will not revisit survey sites again in the same season, thus disturbance to wildlife will be minimal. We will also survey the extent of the goose colony within the boundaries of Ahiak MBS. | N/A                                          | In Ahiak Migratory Bird Sanctuary.                           |
| Karrak Lake Field Camp                  | Camp                      | Crown       | Existing field camp and cabin site location. We will base our field camp from here.                                                                                                                                                                                                                                                                                                                                                       | N/A                                          | within Ahiak Migrator Bird Sanctuary                         |
| Perry River Cabin and Fuel Cache        | Camp                      | Crown       | Existing cabin and fuel cache location. We may use this as an alternate camp location and fuel cache.                                                                                                                                                                                                                                                                                                                                     | N/A                                          | within Ahiak Migratory Bird Sanctuary                        |
| Ellice River Cabin and Fuel Cache       | Fuel and chemical storage | Crown       | Existing fuel cache location. We may cache a small amount of fuel at this existing cache location and clean up once field work is complete.                                                                                                                                                                                                                                                                                               | N/A                                          | within Ahiak Migratory Bird Sanctuary                        |
| McNaughton Lake Old Cabin               | Fuel and chemical         | Crown       | Existing fuel cache location.                                                                                                                                                                                                                                                                                                                                                                                                             | N/A                                          | within Ahiak Migrator Bird                                   |

|                     |         |  |                                                                                                               |  |           |
|---------------------|---------|--|---------------------------------------------------------------------------------------------------------------|--|-----------|
| Site and Fuel Cache | storage |  | We may cache a small amount of fuel at this existing cache location and clean up once field work is complete. |  | Sanctuary |
|---------------------|---------|--|---------------------------------------------------------------------------------------------------------------|--|-----------|

### Community Involvement & Regional Benefits

| Community     | Name         | Organization                                                                                    | Date Contacted |
|---------------|--------------|-------------------------------------------------------------------------------------------------|----------------|
| Cambridge Bay | Chair        | Ahiak Area Co-Management Committee (ACMC) - to be discussed at next meeting in March/April 2025 | 2025-03-31     |
| Gjoa Haven    | ACMC members | Ahiak Area Co-Management Committee (ACMC) - to be discussed at next meeting in March/April 2025 | 2025-03-31     |

## Authorizations

Indicate the areas in which the project is located:

Authorizations

| Regulatory Authority                             | Authorization Description                                                                                                                                                      | Current Status            | Date Issued / Applied | Expiry Date |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------|-------------|
| Environment and Climate Change Canada            | Canadian Wildlife Service Migratory Bird Sanctuary Permit                                                                                                                      | Applied, Decision Pending |                       |             |
| Environment and Climate Change Canada            | Canadian Wildlife Service Scientific Permit                                                                                                                                    | Applied, Decision Pending |                       |             |
| Government of Nunavut, Department of Environment | GN Wildlife Permit - application drafted, awaiting exact survey site locations to be chosen before submitting. Plan to submit in the next couple weeks.                        | Not Yet Applied           |                       |             |
| Kitikmeot Inuit Association                      | Kitikmeot Inuit Association Land Division - application drafted, awaiting exact survey site locations to be chosen before submitting. Plan to submit in the next couple weeks. | Not Yet Applied           |                       |             |

### Project transportation types

| Transportation Type | Proposed Use                                                                                                                                                                                                                                | Length of Use |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Air                 | Fuel caching and drum clean up will be done with a Twin Otter aircraft. During field work, personnel will transit to and from survey locations via helicopter (Bell 407 or similar). Light goose surveys will also use the same helicopter. |               |
| Land                | Once field personnel reach survey site, they will conduct their surveys on foot (each site is a plot of approximately 300m by 400m)                                                                                                         |               |

### Project accomodation types

Permanent Camp

Other,

## Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

| Equipment Type                   | Quantity | Size - Dimensions | Proposed Use                                    |
|----------------------------------|----------|-------------------|-------------------------------------------------|
| Helicopter - Bell 407 or similar | 1        | TBD               | travel to and from survey plots, aerial surveys |
| Twin Otter Fixed-wing Aircraft   | 1        | TBD               | fuel caching and removal of empty drums         |

### Detail Fuel and Hazardous Material Use

| Detail fuel material use: | Fuel Type | Number of containers | Container Capacity | Total Amount | Units  | Proposed Use                                                       |
|---------------------------|-----------|----------------------|--------------------|--------------|--------|--------------------------------------------------------------------|
| Propane                   | fuel      | 6                    | 20                 | 120          | Lbs    | for cooking and heating                                            |
| Aviation fuel             | fuel      | 60                   | 205                | 12300        | Liters | for helicopter fueling - number of drums is still to be determined |

### Water Consumption

| Daily amount (m3) | Proposed water retrieval methods                                                                                      | Proposed water retrieval location             |
|-------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| 0                 | Given only a small amount of water is needed for camp uses, personnel will retrieve water by bucket for purification. | Closest freshwater source to Karrak Lake Camp |

# Waste

## Waste Management

| Project Activity | Type of Waste          | Projected Amount Generated | Method of Disposal                                                                            | Additional treatment procedures |
|------------------|------------------------|----------------------------|-----------------------------------------------------------------------------------------------|---------------------------------|
| Camp             | Greywater              | up to 6 person's worth     | disposed of in sump pit at camp location                                                      | N/A                             |
| Camp             | Other, Household waste | 10 bag                     | flown out with camp                                                                           | N/A                             |
| Camp             | Sewage (human waste)   | up to 6 person's worth     | solid waste bagged and flown out. Cat holes will be dug and waste buried when away from camp. | N/A                             |

## Environmental Impacts:

Potential environmental impacts from this project are primarily associated with aircraft use. These include disturbance to wildlife while travelling to survey sites and potential for fuel spillage while refueling or from fuel caches. All aircrafts are equipped with spill kits, and drums will be placed in portable berms to contain any potential spills. Pre-existing fuel cache locations will be used whenever possible and to minimize the number of new fuel cache locations required. Empty drums will be taken to air strip at Perry River or Karrak Lake at the end of each field season where they can be picked up by Twin Otter and transported to Cambridge Bay for proper disposal. No temporary camps will be established within the MBS as the field crew will be staying at preexisting cabin sites at Perry River or Karrak Lake. All garbage and human waste will be removed from the cabin sites at the end of the field season.

# **Additional Information**

**SECTION A1: Project Info**

**SECTION A2: Allweather Road**

**SECTION A3: Winter Road**

**SECTION B1: Project Info**

**SECTION B2: Exploration Activity**

**SECTION B3: Geosciences**

**SECTION B4: Drilling**

**SECTION B5: Stripping**

**SECTION B6: Underground Activity**

**SECTION B7: Waste Rock**

**SECTION B8: Stockpiles**

**SECTION B9: Mine Development**

**SECTION B10: Geology**

**SECTION B11: Mine**

**SECTION B12: Mill**

**SECTION C1: Pits**

**SECTION D1: Facility**

**SECTION D2: Facility Construction**

**SECTION D3: Facility Operation**

**SECTION D4: Vessel Use**

**SECTION E1: Offshore Survey**

**SECTION E2: Nearshore Survey**

**SECTION E3: Vessel Use**

## **SECTION F1: Site Cleanup**

## **SECTION G1: Well Authorization**

## **SECTION G2: Onland Exploration**

## **SECTION G3: Offshore Exploration**

## **SECTION G4: Rig**

## **SECTION H1: Vessel Use**

## **SECTION H2: Disposal At Sea**

## **SECTION I1: Municipal Development**

### **Description of Existing Environment: Physical Environment**

### **Description of Existing Environment: Biological Environment**

### **Description of Existing Environment: Socio-economic Environment**

### **Miscellaneous Project Information**

### **Identification of Impacts and Proposed Mitigation Measures**

Potential disturbance to wildlife primarily consists of disturbance related to aircraft use during travel, and from human presence on the ground while surveys are taking place. Bird nests discovered during surveys will be approached in order to count the number of eggs and to record the nest location using GPS. Visits to nests will be brief and occur only once, so disturbance to nests is expected to be minimal. Surveys generally take 1-2 hours to complete so we're usually not in any one location for more than a few hours, and we will avoid repeatedly disturbing nests of birds during the survey. If there are large mammals in the area to be surveyed we will not land at that plot or we will depart from the area. If large mammals are observed during air transit, altitude will be increased in order to minimize potential for disturbance.

### **Cumulative Effects**

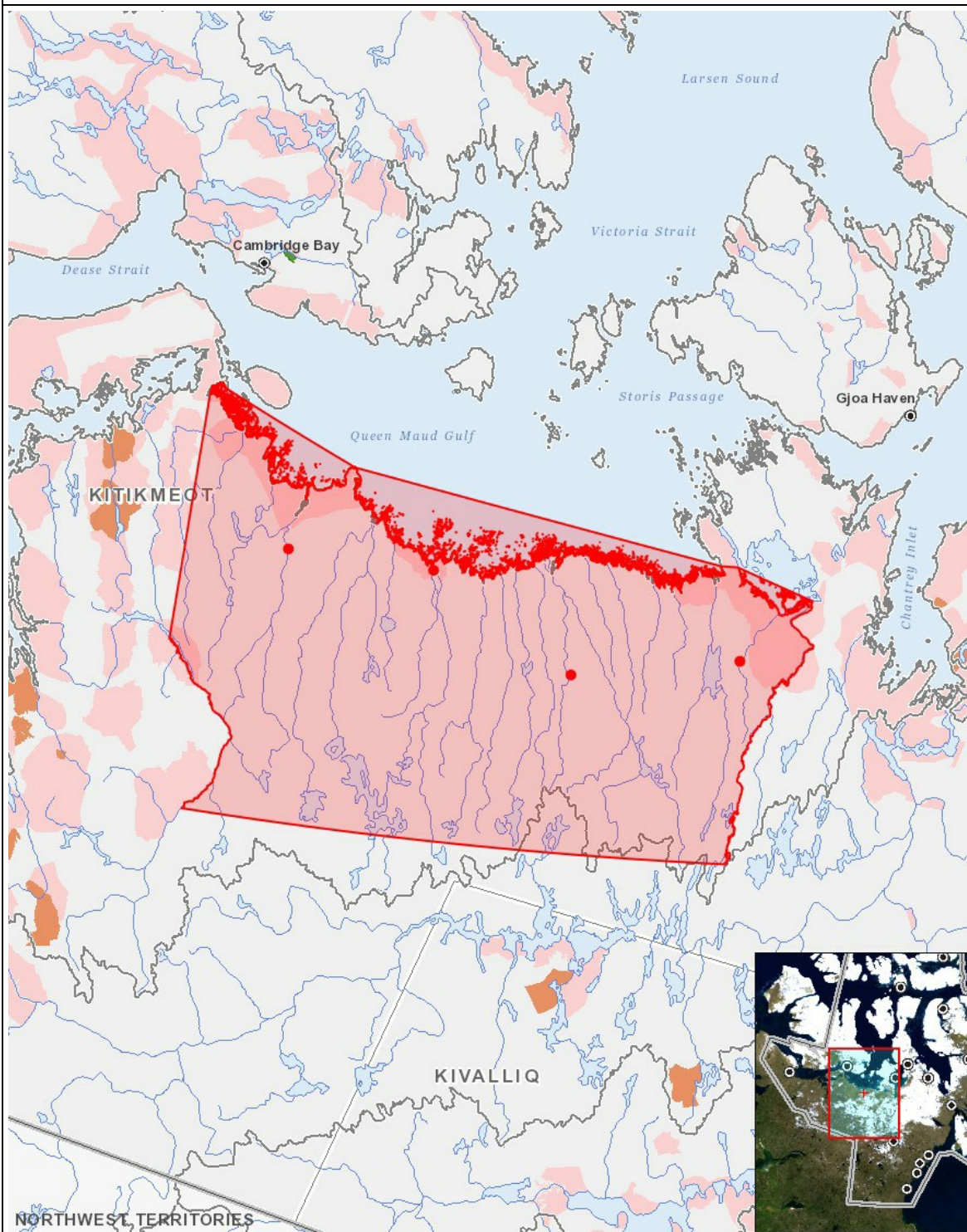
# Impacts

## Identification of Environmental Impacts

|                        |  | PHYSICAL | Designated environmental areas | Ground stability | Permafrost | Hydrology / Limnology | Water quality | Climate conditions | Eskers and other unique or fragile landscapes | Surface and bedrock geology | Sediment and soil quality | Tidal processes and bathymetry | Air quality | Noise levels | BIOLOGICAL | Vegetation | Wildlife, including habitat and migration patterns | Birds, including habitat and migration patterns | Aquatic species, incl. habitat and migration/spawning | Wildlife protected areas | SOCIO-ECONOMIC | Archaeological and cultural historic sites | Employment | Community wellness | Community infrastructure | Human health |
|------------------------|--|----------|--------------------------------|------------------|------------|-----------------------|---------------|--------------------|-----------------------------------------------|-----------------------------|---------------------------|--------------------------------|-------------|--------------|------------|------------|----------------------------------------------------|-------------------------------------------------|-------------------------------------------------------|--------------------------|----------------|--------------------------------------------|------------|--------------------|--------------------------|--------------|
| <b>Construction</b>    |  |          |                                |                  |            |                       |               |                    |                                               |                             |                           |                                |             |              |            |            |                                                    |                                                 |                                                       |                          |                |                                            |            |                    |                          |              |
| -                      |  | -        | -                              | -                | -          | -                     | -             | -                  | -                                             | -                           | -                         | -                              | -           | -            |            | -          | -                                                  | -                                               | -                                                     | -                        |                | -                                          | -          | -                  | -                        | -            |
| <b>Operation</b>       |  |          |                                |                  |            |                       |               |                    |                                               |                             |                           |                                |             |              |            |            |                                                    |                                                 |                                                       |                          |                |                                            |            |                    |                          |              |
| Camp                   |  | P        | -                              | -                | -          | -                     | -             | -                  | -                                             | -                           | -                         | -                              | -           | U            |            | -          | U                                                  | M                                               | U                                                     | P                        |                | -                                          | -          | P                  | -                        | -            |
| Researching            |  | -        | -                              | -                | -          | -                     | -             | -                  | -                                             | -                           | -                         | -                              | -           | M            |            | -          | -                                                  | -                                               | -                                                     | -                        |                | -                                          | -          | -                  | -                        | -            |
| <b>Decommissioning</b> |  |          |                                |                  |            |                       |               |                    |                                               |                             |                           |                                |             |              |            |            |                                                    |                                                 |                                                       |                          |                |                                            |            |                    |                          |              |
| -                      |  | -        | -                              | -                | -          | -                     | -             | -                  | -                                             | -                           | -                         | -                              | -           | -            |            | -          | -                                                  | -                                               | -                                                     | -                        |                | -                                          | -          | -                  | -                        | -            |

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

## Project Location



## List of Project Geometries

- |   |         |                                               |
|---|---------|-----------------------------------------------|
| 1 | polygon | Ahiak Migratory Bird Sanctuary Boundary       |
| 2 | point   | Karrak Lake Field Camp                        |
| 3 | point   | Perry River Cabin and Fuel Cache              |
| 4 | point   | Ellice River Cabin and Fuel Cache             |
| 5 | point   | McNaughton Lake Old Cabin Site and Fuel Cache |