



Valerie Wynja
ECCC
1125 Colonel By Drive, NWRC, Raven Road
Ottawa Ontario K1S 5B6
Canada
ᐅᖃᓕᐅᐱᖅ: 6132963540, ᐱᑲᐱᖅ:

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▷Δ&NƆ: I have attached all project descriptions as attachments:- English, French, Inuinnaqtun, Kivallirmiutut and Qikiqtaaluk Nigiani.

Personnel

Operations Phase: from 2024-06-01 to 2024-09-30

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Frobisher Bay Study Site	Aerial surveys	Inuit Owned Surface Lands	NA	NA	Proximity to nearest communities: Iqaluit, Apex are within the study site. Proximity to nearest protected areas: Katannilik Territorial Park, Sylvia Grinnell and Qaummaarviit Territorial Park are within the study site, Dewy Soper MBS (285 km away)
Frobisher Bay Study Site	Aerial surveys	Crown	NA	NA	Proximity to nearest communities: Iqaluit, Apex are within the study site. Proximity to nearest protected areas: Katannilik Territorial Park, Sylvia Grinnell and Qaummaarviit Territorial Park are within the study site, Dewy Soper MBS (285 km away)
Rankin Inlet, Chesterfield Inlet and Baker Lake Study Site	Aerial surveys	Inuit Owned Surface Lands	NA	NA	Proximity to nearest communities: Rankin Inlet, Chesterfield Inlet and Baker Lake are within the study site. Whale Cove and Arviat are close to the study site. Proximity to nearest protected

					<p>areas: Iqalugaarjuup Nunanga Territorial Park is close to the study site. McConnel River MBS is 250 km away.</p>
Rankin Inlet, Chesterfield Inlet and Baker Lake Study Site	Aerial surveys	Inuit Owned Sub-Surface Lands	NA	NA	<p>Proximity to nearest communities: Rankin Inlet, Chesterfield Inlet and Baker Lake are within the study site. Whale Cove and Arviat are close to the study site. Proximity to nearest protected areas: Iqalugaarjuup Nunanga Territorial Park is close to the study site. McConnel River MBS is 250 km away.</p>
Rankin Inlet, Chesterfield Inlet and Baker Lake Study Site	Aerial surveys	Crown	NA	NA	<p>Proximity to nearest communities: Rankin Inlet, Chesterfield Inlet and Baker Lake are within the study site. Whale Cove and Arviat are close to the study site. Proximity to nearest protected areas: Iqalugaarjuup Nunanga Territorial Park is close to the study site. McConnel River MBS is 250 km away.</p>
Southern Bathurst Inlet Study Site	Aerial surveys	Crown	NA	NA	<p>Proximity to nearest communities: Cambridge Bay (280 km away) and Kugluktuk (340 km away) are close to the</p>

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ᑕᑕᑦᑦᑦ ᑕᑕᑦᑦᑦ ᑕᑕᑦᑦᑦ	Application will be submitted for a scientific research license for conducting shoreline videography in Nunavut. This will be done following NIRB review.	Not Yet Applied		
ᑕᑕᑦᑦᑦ ᑕᑕᑦᑦᑦ ᑕᑕᑦᑦᑦ	Seeking permission to potentially place one fuel cache on Inuit owned lands. Fuel cache will allow the helicopter to refuel during helicopter surveys in Bathurst Inlet.	Not Yet Applied		
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Project transportation types

Transportation Type	ᑕᑕᑦᑦᑦ ᑕᑕᑦᑦᑦ ᑕᑕᑦᑦᑦ	Length of Use
Air	Helicopter survey over the coast	

Project accomodation types

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Λ⁵δ^c Δ^aΓ⁵ Δ⁵ C▷σ▷Λ⁵ Δ^c Γ▷Π▷Γ^c ΔδCΔ^c, Γ^c▷ΔΠ^c, Γ⁵Λ^cCΓ⁵, ρεΓ▷^c ΔΓ^aΓ^c▷

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Aviation fuel	fuel	0	208	0	Liters	Access to aviation fuel from the coastguard ship for mapping in Frobisher Bay and Rankin/Chesterfield Inlets.
Aviation fuel	fuel	0	208	0	Liters	Access to aviation fuel from the Cambridge Bay Airport with the Southern Bathurst Inlet Study Site.
Aviation fuel	fuel	15	208	3120	Liters	We have applied to the Polar Continental Shelf Program for logistical research support in the Arctic. We have proposed one a fuel

						cache with 10-15 drums at the Bathurst Inlet Lodge. Coordinates: 66 50' 14.62N; 108 00' 57.64
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$$\Delta^b C d r n \sigma \Delta^c \sigma^c$$

$\Delta \nabla \Gamma \triangleright C \dot{\bar{C}}^C \supset^C \Delta^b \supset^{cb} C \triangleright \gamma L \gamma^C$

We anticipate the low-altitude helicopter overflight will have a relatively low potential impact of wildlife and the environment. Wildlife may be impacted by: Noise, sudden movements, physical contact with helicopter (unlikely). Anticipated wildlife impact may include: brief periods of alertness while maintaining activities, animals may watch the aircraft, minor changes in animals existing travel speeds, methods and routes, and no change in animal group size or movements. Some moderate impacts might include flight to escape terrain, or flocks of birds taking flights or other changes in animal behavior. Mitigation measures: - Prior to initiation, identify and map sensitive sites (such as breeding, nesting, calving, migration) so we are aware of their location. - Seasonally (mid May-mid-July) avoid caribou birthing/rearing habitats by limiting helicopter flights altitudes to a minimum of 400m above the ground. - Select particular routes, heli-pads, heli-spots for all helicopter activities to avoid caribou birthing/rearing areas. - Avoid landing sites on or near critical seasonal caribou habitats. - No circling above wildlife if spotted. - Avoid bear feeding sites, by limiting helicopter flights altitudes to a minimum of 400m above the ground and avoid general bear habitat by limiting helicopter flights altitudes to a minimum of 200m above the ground. - Limiting helicopter overflights to a minimum of 400m above the ground in areas around waterfowl and shorebirds, and no circling over wetlands and flocks of birds. - Utilizing existing airstrips or using existing disturbed areas for helicopter takeoff and landings. - Predetermine suitable flight routes to: maintain avoidance distance, visual screening and reduced frequency of flights near critical areas. - Identify suitable landing sites in advance. - Plan fieldwork outside of calving/nesting/birthing season. - Convey the mitigation measures to all staff.

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

The helicopter makes a single pass along the shoreline and moves along the coast. We typically fly at 110km an hour, so we pass by sites fairly quickly, reducing and limiting impact to the wildlife present. We anticipate the low-altitude helicopter overflight will have a relatively low potential impact of wildlife and the environment. Wildlife may be impacted by: Noise, sudden movements, physical contact with helicopter (unlikely). Anticipated wildlife impact may include: brief periods of alertness while maintaining activities, animals may watch the aircraft, minor changes in animals existing travel speeds, methods and routes, and no change in animal group size or movements. Some moderate impacts might include flight to escape terrain, or flocks of birds taking flights or other changes in animal behavior. As we are doing a single pass in the helicopter, past the coastline, we do NOT

anticipate the single flight having an impact on changes in animal activity periods, change in animal bedding and feeding areas, lower productivity or abandonment of preferred habitats. Aircraft are noisy machines that travel at high speed with the ability to approach wildlife closely. All aircraft approaches will invoke some kind of reaction from animals. It is difficult to assess the impact of short-term reaction on populations, productivity and habitat use. Helicopters are also associated with rotor downwash and brownouts: high velocity wind vortices are generated by helicopter blades when the machine is hovering above a runway or bushland. This generates blankets of airborne dust particles, reduces habitat values and exposes vegetation and wildlife to lethal wind velocities. Direct physical damage such as to hearing or vegetation being shredded by rotor downwash. Mitigation measures: -Prior to initiation, identify and map sensitive sites (such as breeding, nesting, calving, migration) so we are aware of their location. -Seasonally (mid May-mid-July) avoid caribou birthing/rearing habitats by limiting helicopter flights altitudes to a minimum of 400m above the ground. -Select particular routes, heli-pads, heli-spots for all helicopter activities to avoid caribou birthing/rearing areas. -Avoid landing sites on or near critical seasonal caribou habitats. -No circling above wildlife if spotted. -Avoid bear feeding sites, by limiting helicopter flights altitudes to a minimum of 400m above the ground and avoid general bear habitat by limiting helicopter flights altitudes to a minimum of 200m above the ground. -Limiting helicopter overflights to a minimum of 400m above the ground in areas around waterfowl and shorebirds, and no circling over wetlands and flocks of birds. -Utilizing existing airstrips or using existing disturbed areas for helicopter takeoff and landings. -Predetermine suitable flight routes to: maintain avoidance distance, visual screening and reduced frequency of flights near critical areas. -Identify suitable landing sites in advance. -Plan fieldwork outside of calving/nesting/birthing season. -Convey the mitigation measures to all staff.

Cumulative Effects

Disturbance for wildlife is an additive effect. While the occasional disturbance may be of limited short-term impact (such as this shoreline mapping project), each successive disturbance (other projects in the area) can escalate the impact. The duration of disturbances can be of escalating importance. Wildlife initial response to disturbance is to flee to a secure area, so the ability to have a security area available where there is no disturbance is crucial for mitigation for short-term and long-term impacts. We plan to minimize cumulative impacts by limiting the overflights to one pass.

Impacts

$\Delta^b \triangleright \sigma^a \tau^c \triangleleft \nabla \triangleright \dot{\sigma}^c \dot{\tau}^c \triangleleft \dot{\tau}^b \triangleright \tau^c \nabla$

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(P = $\langle b \rangle \dot{a} \cdot \dot{p} \dot{q} \dot{r} \dot{a} \dot{a} \dot{c} \dot{c}$, N = $\langle b \rangle \dot{a} \dot{r} \dot{r} \dot{c} \dot{d} \dot{a} \dot{a} \dot{c} \dot{c} \dot{c} \dot{c} \dot{d} \dot{r} \dot{r} \dot{c} \dot{c} \dot{c} \dot{d} \dot{a} \dot{a} \dot{r} \dot{c} \dot{c} \dot{c}$, M = $\langle b \rangle \dot{a} \dot{r} \dot{r} \dot{c} \dot{d} \dot{a} \dot{a} \dot{c} \dot{c} \dot{c} \dot{c} \dot{d} \dot{r} \dot{r} \dot{c} \dot{c} \dot{c} \dot{d} \dot{a} \dot{a} \dot{r} \dot{c} \dot{c} \dot{c}$, U = $\dot{c} \dot{d} \dot{p} \dot{r} \dot{a} \dot{a} \dot{r} \dot{c} \dot{c} \dot{c}$)



List of Project Geometries

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|---|---------|--|
| 1 | polygon | Frobisher Bay Study Site |
| 2 | polygon | Rankin Inlet, Chesterfield Inlet and Baker Lake Study Site |
| 3 | polygon | Southern Bathurst Inlet Study Site |

