



## **NIRB Uuktuutinga Ihivriughikhamut #125627**

### **Cambridge Bay New Power Plant and Bulk Fuel Storage Facility**

**Uuktuutinga Qanurittuq:** New

**Havaap Qanurittunia:** Ikumatiit Alguyaanut Havakvik

**Uuktuutinga Ublua:** 7/17/2021 12:17:07 PM

**Period of operation:** from 0001-01-01 to 0001-01-01

**Piumayaat Angirutinga:** from 0001-01-01 to 0001-01-01

**Havauhikhaq Ikayuqtinga:** Megan Larose  
Qulliq Energy Corporation  
PO Box 250  
Iqaluit Nunavut X0A 0H0  
Canada  
Hivayautit Nampanga:: 867 979 7553, Kayumiktukkut Nampanga::





ukiuqtaqtumi. Qulliq Alrujaqtuqtunik Ikumadjutiit uukturumajut nappaqtirilutik aulapkailutiklu nutaamik pauwaqarvikhamik Hamlangani Iqaluktuutiami ittuq hamani Kitikmeot Avikturiani Nunavunmi (Havaakhaq). Iqaluktuutiaq nunagijaujuq amigairjuumiliqtunik pijumajaujunik alrujaqtuqtukhanik, naunairjuumiutaujuq amigaigjuumiliqtut inugiangningit imaalu amigaigjuumiliqtut kavamatkut ukuallu nanminirijaujut havagvigjuat. Tadja Iqaluktuutiami pauwaqariat nappaqtiqtauhimajuq 1958mi imaalu ajuqhautiqaqpaliqtuq amigaittut ihuirutauvaliqtut naamalluarungnaiqhutik. Pauwaqarviit utuqqanguliramik imaalu utuqqaanguqpallaramik, ajurnaqhitiinaqtuq munaqhijaami, pauwaqarvianik imaalu pauwaqarvialit naammalluarunaiqhungujuq ajuqhautaulirniaqturlu. Una uuktuqtaujuumajuuq amigaittut ukiuni havaarajakhaq ilaqarniaqtuq tallimanik-ingniqutiqlaruni pauwaqariami janulitaqariangini pauwaqarvikhanik iliurailutik imaatut 5,500 kilowatts, piliuqhimajumik 40-ukiuni atugakhamik ilaqarniaqturlu nutaamik ihuaqutikhainik, ihuaqtumik. auladjutikhanik imaalu qajangnaittumik. Nuutaaq pauwaqarvikhat aulaniqarniaqtuq ilaujukhanik atuqtauffaagiaqaqtunik auladjutikharnik. Angijunut uqhuqarviit uqhurjuaqarvikhat atuqtakhat piqaqtut malruuk 2-million litre qunmuujuk uqhuqarviik, tuklianik ingalaitkutikhanik avalumik, atauhiq 90,000 litre qaliktariik haninmungajuq uqhuqarvik, turhuangit pappirvikhangitlu iliuraqtauniaqtut hanajauniaqtut. Unaluttauq, QEC-kut upalungaiqhijaujut nappaktirijamingni Quonset akhaluutiqarvikhamik, transformer tutquumavikhanik, napariakhainik, kiniqtat ukuallu glycol qattarjungnik tutquumavikhanik ingalaitkutikhaqaqtumik . Inikhaqarniaqtut umiakku agjautainik havigalingnik tamajaqariinik umingalu aallamiklu qilamiurutiqlarumik janulitakhamik. Imaatut 2 kilometres (km) alrujaqtuutikhanik alrujamik pijariaqaqtut iliurautikhanik atadjutikhanik nutaamut pauwaqarvingmut. Pauwaqarvikhat igluqpat ilaqarniaqtuq havagviit, alrujaqtuutikhanik munaqhivikhanik igluarmik, alrujanik hanaviat, akhaluutiqarvik/hanavikhat, iilaliutihimajumik pauwaliurutikhanut tutquumavikhat. Imaatut aktigijumik 400-metre takujut turhuat nappaqtiqtauniaqtun atajunik Uqhurjualiqlijikkut Uqhukhanik Havagvia (PPD) angijut uqhuqarviinut. Uukturumajat nunakhaa najugakhaa imaatut aktigijuuq 14,400 kikkariktait metres najugaani Kamisinap Nunait ukunani Lot 1017 Plan 4573 imaatut naunaiqtauniaqtuq Lot 3 Block 67 Plan 4781 (Sketch 500-SK-2019). Najugaani kivataani haffuma Apqutaa R36, imaatut unngahiktigijuuq 2 km hivuraani Hamlangat Iqaluktuutiamit, imaatut unngahiktigijuuq 1 km kivataanit Iqaluktuutiap Milvianit, imaatutlu unngahiktigijuuq 400 metres tunnunganit PPD angijut uqhuqarviinut. Piqangittuq nunamit qurluarvikhanik, imainnarmikluunniit 100 miitasnik havaakhamik napaqtirvikhanit. Piqangittuq huradjaat najugaanik, imarmiuniklu, avikturviuvimi Kanadamilu min'nguirviinnik Inuit nunagijainnikluunniit hulaqutikpat pauwaqarvikhaannik najugakhanik. Ingilraangnitatigun aktumattaqtunik ihivriuhiniaqtut July 2021 mi ihumaliuriami ingilraangnitamik pivikhaqarianginni ihuilidjutiniarman havaakhamut naunairlugitlu hanaqijaulimaittaanginni. Havaakhamut naunaitkutikhangit takunnaqtut talvani Naunaitkutimi 1. Naunaitkut 1: Naunaitkutikhat Iqaluktuutiami Pauwaqarvikhat HavaakhaqHavaktakhaqKirlikhaqaqtutInikhanik Nunamik imaalu Iniqtirlugitlu Ingilrarnittat Aktuurtaulajunik Naunaijainirmut March 2021 talvunga March 2022 Naunaijattiaqhimajuq titiraujakhimajumik piliurnia April 2022 talvunga March 2023 Kantraqarnikkut niuvirnirmunlu April 2023 talvunga March 2024 Nappaktirinirmut April 2024 talvunga December 2025 (ukiumi ilangani) Uuktuutinik imaalu havaktitaulirniq January 2026 talvunga March 2026 Pauwaqarvik tunijaunikanik March/April 2026 Kantraqaqtukhamik tunijauniaqtut nappaktirijukhamik uuktuutat naunaiqtauniaqtut pijakhat havaktakhanut ihuaqtumik havaakhamut pijakhanik; kihimi, iitqurniakhimajat 35 nik havaktikhat najugaani-inniaqtun pidjutigilugit nappaktirinikhanut qanurinningit. Kantraaktitaujut pijukhat tikiutilugit piqaqtukhanik Inuit havaktikhanik tamainni nappaktiriligumik. QEC-kunni haaktiit nunagani Iqaluktuutiami munarijaqaqtut ubluq tamaat aulavikhainut pauwaqarviani. Ukuat ilaujut Pauvaliqivingmi Atan'ngujat, Ikajuqtiujuq Aulapkijiujuumut, umalu Himmataulaktuq

Aulapkaijimut. Nahurijaujut tadjja havaktiujut nuutirniaqtun nutaamut pauwaqarvikhamut nappaqtiqtaukpat iniqqadjuk. Tamna alrujaqarviat/ihuaqhaiviat havaktaujukhanik imalu tutquumavat tamajarviat nappaqtaukpat, alrujiqijit havaktingit, ihuaqhaijit havaktingitm tutqumaviinik munaqhiji iniqtirniaqtzit havagvikhatik hamani. Atauttimut, imaatut aimgaittut 14nik QEC-kuni havaktiit havangniaqtun talvanga nutaami pauwaqarvikhat najugaani. Amigaitqijaujut nappaktirinirmun tamajait Havaakhamut agjaqtauniaqtut umiakktut. Ilangit tamajait niuviktauniaqtun nunanganit agjaqtaulutikluunniit tingmitikkut naunairutilugit aktilaangit kaffiutilangitlu. Kantraaktitaujuq munarijaqarniaqtuq atuqtitilutik nappaqtirutikhanik ingilrutinik. Ilaliutinarungnaqhijutlu aadlamik kantraaktitaujukhamik nunamingnit hailijunik ingilrutinik imaaluuniit agjarlugit ingilrutit nunanganut umiakktut. Una havaakhaq niriugijaujuq pivikhaqariami Hamalatkunnut Iqaluktuutiami ihuatqijamik aturiangini uqhurjuvanik, hilaimit pauwaliurutikhanik, imaalu ikiglijuumiutikhanik algungup pujuanik. Pipkainiaqtullu QEC-kunnut nakuuhivalliadjutikhaanun pauwaqautikkut nunallaami, ikajuutikhanik amigaikpallianingat nunanganut, tikiutilugulu hivunikhaliuqtat qajangnaittumik, ihuaqtumik pauwakhainnik nunanganut kivgaqtuqtamingnut.

### **Personnel**

Personnel on site: 30

Days on site: 580

Total Person days: 17400

Operations Phase: from 2024-04-01 to 2026-03-31

Operations Phase: from 2026-04-01 to 2046-03-31

Post-Closure Phase: from to

# Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannuqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtaiiyainnit nuna
Cambridge Bay Proposed Power Plant Lot (area)	Municipal and Industrial Development	Commissioners	The proposed lot for the power plant is unoccupied and undeveloped Commissioner's Land; however, it is within the Municipal Boundary for the Hamlet of Cambridge Bay. The area proposed for the power plant has been designated by the Hamlet as 'restricted industrial' and is proposed for re-zoning as industrial. The Many Pebbles Golf Course is located in the immediate vicinity of the proposed power plant location and may conflict with one of the holes.	An archaeological impact assessment will be carried out in July 2021 to determine if archaeological sites are in potential conflict with the project. •In the event that cultural or archaeological artifacts are encountered, construction activity will stop and the Government of Nunavut Department of Culture and Heritage will be contacted.	The proposed project is approximately 2 kilometres southwest of the Hamlet of Cambridge Bay, approximately 1 kilometre east of the Cambridge Bay Airport, and approximately 400 metres northeast of the PPD bulk fuel storage facility. There are no designated wildlife areas, marine protected areas, territorial or national parks or Inuit owned lands in conflict with the power plant location. There are no natural drainages, or watercourses within 100 metres of the project location.
Cambridge Bay Proposed Power Plant Lot (area)	Fuel and chemical storage	Commissioners	The proposed lot for the power plant is unoccupied and undeveloped Commissioner's Land; however, it is within the Municipal Boundary for the Hamlet of Cambridge Bay. The area proposed for the power plant has been designated by the Hamlet as 'restricted industrial' and is proposed for re-zoning as industrial. The Many Pebbles Golf Course is	An archaeological impact assessment will be carried out in July 2021 to determine if archaeological sites are in potential conflict with the project. •In the event that cultural or archaeological artifacts are encountered, construction activity will stop and the Government of Nunavut Department of Culture and Heritage will be contacted.	The proposed project is approximately 2 kilometres southwest of the Hamlet of Cambridge Bay, approximately 1 kilometre east of the Cambridge Bay Airport, and approximately 400 metres northeast of the PPD bulk fuel storage facility. There are no designated wildlife areas, marine protected areas, territorial or national parks or Inuit owned lands in conflict with the power plant

			located in the immediate vicinity of the proposed power plant location and may conflict with one of the holes.		location. There are no natural drainages, or watercourses within 100 metres of the project location.
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**Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun**

<b>Nunauyuq</b>	<b>Atia</b>	<b>Timiuyuq</b>	<b>Upluani Uqaqatigiyaungmata</b>
Ikaluktuttiak	Hamlet Council - Chief Administrative Officer	Hamlet of Cambridge Bay	2020-07-20
Ikaluktuttiak	Land Development Officer	Hamlet of Cambridge Bay	2021-03-09

# Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Kitikmeot

## Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Hamlets and Municipalities	Land Application - applied March 9, 2021 to be reviewed at Lands Committee Mtg July 20, 2021	Applied, Decision Pending		
Government of Nunavut, Community Government & Services	Lease Agreement - subject to approval by the Hamlet	Applied, Decision Pending		
Hamlets and Municipalities	Development Permit	Not Yet Applied		
Government of Nunavut, Community Government & Services	Building Permit	Not Yet Applied		
Nunavut Kavamanga, Pivalliyuliyikkut Ingilrayuliyitkullu	Review by Nunavut Airports - no objection letter	Not Yet Applied		
Tingmiliqiyitkut Kaanatami	Aeronautical Assessment	Not Yet Applied		
Alaanut	NavCanada - Land Use Proposal Submission - No Objection Letter	Not Yet Applied		
Nunavut Imaligiyyit Katimayit	Hydrostatic Test - Type B license for water use and disposal of test water (to be completed by contractor)	Not Yet Applied		

## Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Air	Construction labour and some materials will be transported to the community by air	
Water	Construction equipment and materials will primarily be transported to the community by sea lift	

## Project accomodation types

Nunauyuq

# Ihuaqtivaluin Atuqtauyukhan

Hanalrutit atuqtaunahuat (ukuallu ikuutat, pampiutainnik, tingmitinik, akhaluutinik, hunaluuniit)

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Back Hoe/Excavator	1		excavation, land development, foundation
Bull Dozer	1		civil works, grading
Compactor	1		foundation construction
Fork Lift	1		moving/transporting materials
Dump Truck	2		gravel/rock and other material transportation
Mobile Tower Crane	1		lift/place materials and equipment to height
Pile Boring Machine	1		pile construction
Tele-handler	1		lifting/moving materials
Concrete Mixer	2		mixing and pouring concrete
Welding/Steel Cutting Machine	2		welding
Truck Trailer	1		transporting materials
Generator	5		Five generators will be installed in the power plant with a generating capacity of 5,500 kilowatts

## Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Diesel	fuel	1	90000	90000	Liters	Fuel will be used to run the generators for the power plant. Fuel will be stored in an above ground horizontal fuel storage tank.
Diesel	fuel	2	2000000	4000000	Liters	Fuel will be used to run the generators for the power plant. QEC bulk fuel supply. Fuel will be stored in vertical tanks within a secondary containment berm.
solvent	hazardous	4	205	820	Liters	generator maintenance/operation
engine oil	hazardous	16	205	3280	Liters	generator operation
propylene glycol	hazardous	1	2000	2000	Liters	power plant operations, heat transfer
Diesel	fuel	1	0	0	Liters	Fuel will be required during construction for all equipment used on site. Fuel storage and handling during construction will be the

					responsibility of the contractor. Details regarding the location and volume of fuel storage and location of equipment refueling during construction are not known at this time. The contractor will be required to have a fuel management plan.
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**Imaqmik Aturninnga**

<b>Ubluq qanuraaluk (m3)</b>	<b>Aturumayain imavaluin utiqittagaani qanuq</b>	<b>Atulirumayain imavaluin utiqittagani humi</b>
0	To be determined by the construction contractor.	To be determined by the construction contractor.

# Iqqakuq

## Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Municipal and Industrial Development	Ikulalaaqtun iqqakuuvaluin	unknown	Disposal of construction waste will be the responsibility of the contractor. If permitted by the Hamlet, some waste may be disposed of at the local landfill. During operations, QEC will dispose of domestic waste in the local landfill if permitted by the Hamlet. Waste that is not permitted in the local landfill will be shipped south as part of QECs annual waste shipment.	none
Fuel and chemical storage	Ikulalaaqtun iqqakuuvaluin	unknown	Disposal of construction waste will be the responsibility of the contractor. If permitted by the Hamlet, some waste may be disposed of at the local landfill. During operations, QEC will dispose of domestic waste in the local landfill if permitted by the Hamlet. Waste that is not permitted in the local landfill will be shipped south as part of QECs annual waste shipment.	none
Fuel and chemical storage	Hivuuranaqtun iqqakuuvaluin	2,460 litres	The amount of liquid waste generated during operation will vary annually. Waste fuel, oil, glycol, and solvent will be collected in drums, stored within secondary containment and shipped south for disposal.	none
Municipal and Industrial Development	Ikulalimanngittun iqqakuuvaluin	unknown	During construction, the contractor will be responsible for the disposal of non-	none

			combustible waste. The amount of non-combustible waste generated during operations will vary annually. Material will be stored in quatrex bags or other appropriate containment and shipped south for disposal.	
Fuel and chemical storage	Ikulalimanngittun iqqakuuvaluin	unknown	During construction, the contractor will be responsible for the disposal of non-combustible waste. The amount of non-combustible waste generated during operations will vary annually. Material will be stored in quatrex bags or other appropriate containment and shipped south for disposal.	none
Municipal and Industrial Development	Atakuin (halumaiqtun nunan, iqqakuuvaluillu uyaqqiqivingmin)	unknown	Disposal of overburden and soil/rock excavated for the power plant and bulk fuel storage area to be determined by the contractor in communication with the Hamlet. Volume to be determined. If possible, some overburden material may be used to build up other areas within the plant site.	none

**Avatiliriniqmut Ayurhauingit:**

Please refer to the attached Project Description (Table 4). Note: The environmental impact identified for permafrost, sediment and soil quality, air quality, and noise levels should be negative/mitigable for the construction and operation phases of the Municipal and Industrial Development and Fuel and Chemical Storage activities. The selection changes automatically to negative/non-mitigable every time this page is viewed.

# **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**

Please refer to the attached Project Description document.

**Qanurittuq Ittunik Avatinga: Avatingalluanga**

Please refer to the attached Project Description document.

**Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga**

Please refer to the attached Project Description document.

**Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga**

Please refer to the attached Project Description document.

**Miscellaneous Project Information**

**Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit**

Please refer to the attached Project Description document.

**Tamatkiumayunik Ihuikgutivaktunik**

Please refer to the attached Project Description document.

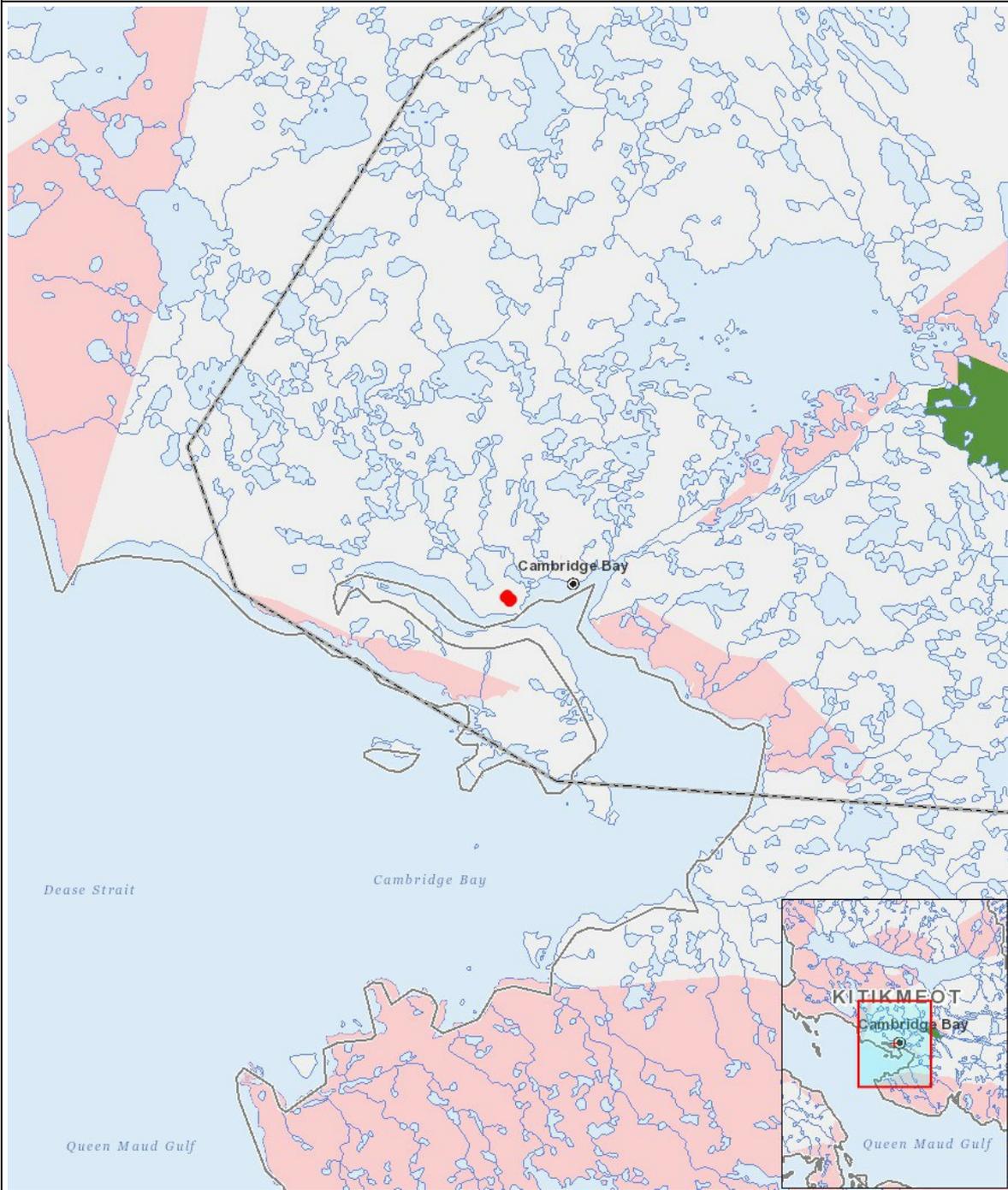
# Impacts

## Ilitariyauniq Avatiliriniqmut Ayurhauingit

	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>Havakvinga</b>																									
Fuel and chemical storage	-	-	N	-	-	-	-	-	N	-	N	N	-	-	-	-	-	-	-	U	P	-	P	-	
Municipal and Industrial Development	-	-	M	-	-	-	-	-	M	-	M	M	-	-	-	-	-	-	-	U	P	-	P	-	
<b>Aulapkaininnga</b>																									
Fuel and chemical storage	-	-	N	-	-	-	-	-	N	-	N	N	-	-	-	-	-	-	-	-	-	-	P	-	
Municipal and Industrial Development	-	-	M	-	-	-	-	-	M	-	M	M	-	-	-	-	-	-	-	-	-	-	P	-	
<b>Piiqtauniq</b>																									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

(P = Nakuuyuuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhittaaqtuq, U = Naluyauyuq)

Havaariyauyukhamut Nayugaa



List of Project Geometries

- |   |         |   |
|---|---------|---|
| 1 | polygon | Cambridge Bay Proposed Power Plant Lot (area)     |
| 2 | point   | Cambridge Bay Proposed Power Plant (four corners) |