NIRB Application for Screening #125717
ms GREG MORTIMER - Arctic Cruises - 2022

Application Type:	New
Project Type:	Tourism
Application Date:	6/15/2022 12:14:50 PM
Period of operation:	from 0001-01-01 to 0001-01-01
Proposed Authorization:	from 0001-01-01 to 0001-01-01
Project Proponent:	F.K. Warren Ltd. F.K. Warren Ltd. 2000 Barrington St., Suite 1212 Halifax Nova Scotia B3J 3K1 Canada Phone Number:: 902-423-8136, Fax Number:: 902-429-1326

DETAILS

Non-technical project proposal description

English: AURORA EXPEDITIONS plans to bring passengers and crew members, aboard its small expedition cruise vessel M/V GREG MORTIMER, to Nunavut in the late summer/early fall of both 2022 and 2023 as part of a set of commercial tourism voyages focusing on the ‘north-west’ passage between Greenland (Kangerlussuaq) and Cambridge Bay. The four proposed voyages (two each in 2022 and 2023) will transit through, and conduct off-ship excursions or activities within, Canadian Wildlife Service (CWS) protected areas.2022NWP001G: Kangerlussuaq to Cambridge Bay from August 25, 2022 to September 08, 2022.NWP002G: Cambridge Bay to Kangerlussuaq from September 08, 2022 to September 22, 2022.2023.NWP003G: Kangerlussuaq to Cambridge Bay from August 24, 2023 to September 07, 2023.NWP004G: Cambridge Bay to Kangerlussuaq from September 07, 2023 to September 21, 2023.The M/V GREG MORTIMER will follow the proposed itinerary (as provided), although (like all travel in the polar regions) the final day-by-day itinerary and activities are dependent on a number of factors including weather, wind, sea state, visibility, ice conditions and the presence of wildlife. Passenger and crew member involvement at these remote ports of call is meant for the purpose of personal interest and the activity undertaken will be confined to sightseeing only. No flora, fauna, soil, artifacts, remains or other material will be collected for research purposes. No structures will be erected, and no equipment or other debris will be left ashore. The M/V GREG MORTIMER is a cruise vessel providing adventure tourism opportunities to its passengers and is not a research or education vessel.Before each landing, passengers and expedition team members are given a short briefing on the vessel by the Expedition Leader or Head Naturalist about the planned activities, specific sensitivities relating to flora and fauna, passenger movement and behavior ashore. These points are reinforced upon arrival at the landing site. Particular attention is paid to geologically fragile features, etiquette at wildlife areas, boundaries of any specific protected areas, and conduct at cultural sites.

French: AURORA EXPEDITIONS prévoit d’amener des passagers et des membres d’équipage, à bord de son petit navire de croisière d’expédition M/V GREG MORTIMER, au Nunavut à la fin de l’été ou au début de l’automne 2022 et 2023 dans le cadre d’un voyage touristique commercial axé sur le passage « nord-ouest » entre le Groenland (Kangerlussuaq) et Cambridge Bay. Les quatre voyages proposés (deux en 2022 et deux en 2023) transiteront par des aires protégées du Service canadien de la faune (SCF) et effectueront des excursions ou des activités hors navire à l’intérieur de ces zones.2022NWP001G : De Kangerlussuaq à Cambridge Bay du 25 août 2022 au 8 septembre 2022.NWP002G : De Cambridge Bay à Kangerlussuaq du 8 septembre 2022 au 22 septembre 2022.2023NWP003G : Kangerlussuaq à Cambridge Bay du 24 août 2023 au 7 septembre 2023.NWP004G : De Cambridge Bay à Kangerlussuaq du 7 septembre 2023 au 21 septembre 2023.Le M/V GREG MORTIMER suivra l’itinéraire proposé (tel que prévu), bien que (comme tous les voyages dans les régions polaires) l’itinéraire et les activités finaux au jour le jour dépendent d’un certain nombre de facteurs, y compris les conditions météorologiques, le vent, l’état de la mer, la visibilité, les conditions de glace et la présence de la faune. La participation des passagers et des membres d’équipage à ces ports d’escale éloignés est destinée à des fins d’intérêt personnel et l’activité entreprise se limitera aux visites touristiques seulement. Aucune flore, faune, sol, artéfacts, restes ou autre matériel ne sera recueilli à des fins de recherche. Aucune structure ne sera érigée et aucun équipement ou autre débris ne sera laissé à terre. Le M/V GREG MORTIMER est un navire de croisière offrant des possibilités de tourisme d’aventure à ses passagers et n’est pas un navire de recherche ou d’éducation.Avant chaque atterrissage, les passagers et les membres de l’équipe d’expédition reçoivent un bref exposé sur le navire par le chef d’expédition ou le naturaliste en chef sur les activités prévues, les sensibilités spécifiques relatives à la flore et à la faune, le mouvement des passagers et le comportement à terre. Ces points sont renforcés à l’arrivée sur le site d’atterrissage. Une attention particulière est accordée aux caractéristiques géologiquement fragiles, à l’étiquette des réserves fauniques, aux limites de toute aire protégée particulière et à la conduite dans les sites culturels.

Inuktitut: ᐊᐹᕐᕿ ᐃᖅᑭᖅᖁᔭᐅᑎᑦᑯᓂᑦ ᐃᑭᒪᓂᐊᖅᑐᓂᑦ ᐊᒻᒪᓗ ᐱᓕᓇᔨᑭᔭᐅᔪᓂᑦ, ᐅᒥᐊᖅᔪᐊᖅᒥᑦ ᐅᓯᔪᒪᔪᑦ ᒥᑭᔪᖅ ᐃᖅᑭᖅᖁᔭᓗᑎᑦ ᑕᑯᔭᖅᑐᐃᑎᑕᑎᔪᖅ ᐅᒥᐊᖅᔪᐊᖅᑯᑦ M/V GREG MORTIMER, ᓄᓇᕗᒻᒧᑦ ᐊᐅᔭᖅ ᓄᖅᔪᕐᓕᓕᐊᓂᖅᓴᓂᕐᓄᑦᑎᓴᖅ ᐱᒋᐊᓴᓐᓂᖅᓴᓂᕐ ᑕᒪᐃᖅᓂᕐ ᐅᑭᐅᓂᕐ 2022-ᒥᑦ ᐊᒻᒪᓗ 2023-ᒥᑦ ᐃᓕᒋᔭᐅᓗᓂᕐ ᖃᑎᒌᓕᔪᓂᕐ ᐱᒋᐊᓴᓐᓂᖅᓴᓂᕐ/ᐅᑭᐅᖅᓴᖅ ᐱᒋᐊᓴᓐᓂᖅᓴᓂᕐ ᑕᒪᐃᖅᓂᕐ ᐅᑭᐅᓂᕐ 2022-ᒥᑦ ᐊᒻᒪᓗ 2023-ᒥᑦ ᐃᓕᒋᔭᐅᓗᓂᕐ ᖃᑎᒌᓕᔪᓂᕐ ᐱᓕᓇᔨᑭᔭᐅᔪᓂᕐ ᐃᖅᑭᖅᖁᔭᓗᑎᑦᑯᓂᕐᒥᑦ ᑕᐅᔭᓕᖅᖁᔭᓗᑎᑦ ‘ᐅᐊᖅᓇᖅᓴᕐᔪᖅ-ᐱᖓᖅᓇᖅᓴᕐᔪᖅ’ ᐃᓅᖅᓴᖅᔪᓂᑦ ᐊᔪᖅᑐᖅᓴᓂᕐ ᐊᔪᑭᑐᐃᓂᕐ (ᖃᖅᑭᖅᓯᓚᐅᖅ) ᐊᒻᒪᓗ ᐊᖅᓄᓅᑐᐃᓂᑎᐊᓵ. ᔪᑕᒪᐃᑦ ᐃᖅᑭᖅᖁᖅᓂᔪᑦ ᑐᓴᔪᖅᑕᐅᔪᓂᕐ (ᒪᖅᓯᒪᓂᕐᓴᓐᓂᖅ) ᑕᐃᔨᓇᓂᖅᑐᐃᓂᕐ, ᐊᒻᒪᓗ ᐅᒥᐊᖅᔪᐊᖅᒥᑦ ᐱᓴᓗᑎᐅ ᑕᔪᖅᑕᐃᓗᑎᐅ ᐅᖃᓕᓇᖅᓂᕐ ᖃᓄᐅᓕᐅᑦᑎᑕᐅᓗᑎᐅ ᑕᐃᓄᓂ, ᓄᓇᑕᒥᑦ ᓂᖅᔪᑎᓕᓚᓂᖅᓴᔪᑦ ᐱᓕᑦᑎᖅᓄᓂᖅᑯᓗᒃ ᒥᐊᓂᖅᓂᖅᓂᕐᓄᑦᑎᖅᓂᖅᓴᖅᓂᖅᓗᒃ.2022NWP001G: ᑲᖅᑭᓗᓴᓂᐊᖅᑭᑦᑎᓂᕐ ᐃᖅᓄᓇᕗᒻᒧᑎᑦᑎᓂᕐ ᐊᔪᓂᑦᑎᓂᕐ (ᐊᒥᓂᔪ) 25-ᒥᑦ ᐊᒥᖅᐃᓴᖅᓴᖅ (ᔪᑎᐱᓇᓗ) 8-ᒧᑦ, 2022-ᒥᑦ.NWP002G: ᐃᖅᓄᓇᕗᒻᒧᑎᑦᑎᓂᕐ ᑲᖅᑭᓗᓴᓂᐊᖅᑭᑦᑎᓂᕐ ᐊᒥᖅᐃᓴᖅᓴᖅ (ᔪᑎᐱᓇᓗ) 8-ᒥᑦ -ᒧᑦ, ᐊᒥᖅᐃᓴᖅᓴᖅ (ᔪᑎᐱᓇᓗ) 22, 2022-ᒥᑦ.2023NWP003G: ᑲᖅᑭᓗᓴᓂᐊᖅᑭᑦᑎᓂᕐ ᐃᖅᓄᓇᕗᒻᒧᑎᑦᑎᓂᕐ ᐊᔪᓂᑦᑎᓂᕐ (ᐊᒥᔪ) 24-ᒥᑦ ᐊᒥᖅᐃᓴᖅᓴᖅ (ᔪᑎᐱᓇᓗ) 7-ᒧᑦ, 2023-ᒥᑦ.NWP004G: ᐃᖅᓄᓇᕗᒻᒧᑎᑦᑎᓂᕐ ᑲᖅᑭᓗᓴᓂᐊᖅᑭᑦᑎᓂᕐ ᐊᒥᖅᐃᓴᖅᓴᖅ (ᔪᑎᐱᓇᓗ) 7-ᒥᑦ -ᒧᑦ, ᐊᒥᖅᐃᓴᖅᓴᖅ (ᔪᑎᐱᓇᓗ) 21, 2023-

ᒥᑦ.M/V GREG MORTIMER ᒪᓕᖅᓂᐊᖅᑐᑦ ᖃᖅᖢᑲᓇᖢᓪᓚᕆᑦ ᓄᒧᖏᑎᐅᓂᐊᖅᓂᖅᑎᓂᒃ (ᐃᓕᐅᑎᑕᐅᔪᖅ), ᑭᓯᐊᓂ (ᐃᖅᑭᖅᖁᖃᑕᖅᓂᓕᓪᓕᒃᑎᑐᑦ ᐅᑭᐅᖅᑕᖅᑐᒥᑦ) ᑭᖅᔪᓕᖅᓱᒃᑯᓂ ᐅᓪᓗᖅᒥᑦ ᐅᓪᓗᖅᓘᑦ ᖃᖅᖢᑲᓇᖢᓪᓚᕆᑦ ᐊᒪᓚᓗ ᖃᓄᐃᓕᐅᕐᓂᐅᔪᑦ ᐊᑐᖅᐊᖅᑐᑦ ᖃᓪᓚᕆᔪᖅᓂᑦ ᐱᓱᔪᑕᐅᔪᓂᒃ ᐃᓕᐅᓪᓗᓂᒃ ᓯᓪ, ᐊᓂᓗ, ᑕᓗᐅᓪ ᖃᓄᐃᓕᐅᕐᓂᐅᔪᑦ ᓂᔪᐊᑎᑦ. ᐃᑭᒪᔪᑦ ᐊᒪᓚᓗ ᐱᓕᓗᓱᒃᑐᓂ ᐃᓕᐅᔪᑦ ᐅᖅᑎᑭᓗᓂᒃ ᐃᓱᔪᖅᓂᓂᒃ ᐃᓕᖅᑐᓂᒃ ᐱᔪᒪᓂᓗᖅᑐᓂ ᐊᒪᓚᓗ ᖃᓄᐃᓕᐅᕐᓂᖅᓂᖅᑐᑦ ᑕᔪᕐᓂᐊᓕᖅᓂᖅᑐᑦ ᐃᓄᐃᑦᑐᓂᒃ ᐱᓕᕆᓂᒃ ᐱᔪᒪᓂᓗᖅᑐᑦ ᑕᐃᒪᑕᖅᖢᓂᐅᔪᑦ ᓂᔪᔨᑎᑦ. ᐃᑭᒪᔪᑦ ᐊᒪᓚᓗ ᐱᓕᕆᓂᒃ ᑕᐃᒪᓕᖅᖢᓂᐅᔪᑦ ᐅᖅᑎᑭᓗᓂᒃ ᐊᑐᖅᐊᖅᑐᑦ ᐃᓕᐅᔪᑦ ᑕᐃᒪᓕᖅᖢᓂᐅᔪᑦ ᐃᓕᐅᓪᓗᓂᒃ ᐃᓕᐅᔪᑦ ᐃᓄᐃᑦᑐᓂᒃ ᐃᓕᐅᓪᓗᓂᒃ ᐃᓕᐅᔪᑦ

Operations Phase: from 2022-08-29 to 2023-09-21

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Qikiqtarjuaq - Clearance	Tourism Activities	Crown	Qikiqtarjuaq received the name Broughton Island in 1818 by Royal Navy explorer John Ross. Ross opened up the west shore of Baffin Island to European whalers who had already been hunting the nearby Greenland area. Seasonal visits by whalers to the Qikiqtarjuaq area began in July 1824 and continued for a century.	Northern access point for Auyuittuq National Park	Qikiqtarjuaq
Isabella Bay 69°37'10.46N / 067°40'7.51W	Tourism Activities	Crown	Ninginganiq National Wildlife Area was designated in 2010 and is the largest NWA in Canada measuring over 336,000 hectares. The Inuktitut word 'Ninginganiq' translates roughly as 'the place where fog sits'. It provides an important marine habitat, creating ideal conditions for bowhead whales. Up to 100 bowheads have been recorded at one time in Isabella Bay, making this the single largest known concentration for this species anywhere in Canada.	N.A	Clyde RiverNinginganiq National Wildlife Area
Pond Inlet	Tourism Activities	Crown	Pond Inlet is a small community in Nunavut, located on northern Baffin Island. Community visit and engagement is planned for calls to Pond Inlet	N/A	The Sirmilik National Park on Bylot Island, the Tamaarvik Territorial Park, and the Qilaukat Thule site are near the hamlet.
Bylot Island 72°42'55.13N 73°43'38.85N - 079°20'18.05W	Tourism Activities	Crown	Almost all of the island is located within Sirmilik National Park,	Home to some of the best-preserved prehistoric artifacts in Canada's Far	Located within Sirmilik National ParkPond Inlet

081° 7'50.44W - Ship's Cruise			harbouring large populations of thick-billed murres, black-legged kittiwakes and greater snow geese. The eastern area of the island is federally designated as the Bylot Island Migratory Bird Sanctuary.[6] The Bylot Island Research Station is owned and run by the Centre d'études Nordiques (CEN: Centre for Northern Studies) and in collaboration with Parks Canada	North. While remains of Paleoeskimo (Pre-Dorset and Dorset) cultures represent the earliest human occupations in within the park region, they represent only a small portion of the documented archaeological sites and Thule / Inuit sites make up the majority of documented archaeological sites within the park	
Dundas Harbour 74°31'54.32N / 082°24'56.05W	Tourism Activities	Crown	An outpost was established at the harbour in August 1924 as part of a government presence intended to curb foreign whaling and other activity. The Hudson's Bay Company leased the outpost in 1933. returned to the mainland 13 years later. Dundas Harbour was populated again in the late 1940s to maintain a patrol presence, but it was closed again in 1951 due to ice difficulties.	-Only the ruins of a few buildings remain, along with one of the northernmost cemeteries in Canada.[7] houses made of sod and whale ribs, qajaq (kayak) stands, even ingenious polar bear traps fashioned out of stone.	Largest uninhabited in the world
Croker Bay 74°41'52.95N / 083°14'22.92W	Tourism Activities	Crown	Home to the Croker Bay Glacier. An actively calving glacier often litters Croker bay with numerous icebergs	N/A	N/A
Beechey Island 091° 5'10.67W / 091°49'46.70W	Tourism Activities	Crown	Beechey Island is best known for containing three graves of Franklin expedition members, which were first discovered in 1850 by searchers for the lost Franklin expedition	Five archaeological sites on Beechey Island and nearby Devon Island (the Franklin wintering camp of 1845–46, Northumberland House, the Devon Island site at Cape Riley, two message cairns, and the HMS Breadalbane National Historic Site) were	Resolute

				designated as the Beechey Island Sites National Historic Site of Canada.[6]	
Radstock Bay 74°41'17.24N / 091° 5'10.67W	Tourism Activities	Crown	Radstock Bay (Caswall Tower) - towering limestone cliffs that rise over 300m from the sea to a flat plateau above.	About 30 archaeological sites, including 3 old Inuit houses and 10 to 15 tent-rings are known to exist in the area south of Caswall Tower.	Resolute
Prince Leopold Island 74° 1'3.57N / 089°59'59.48W	Tourism Activities	Crown	Ornithological field research began on the island in the 1950s, and an Environment Canada research station was established on the island in 1975. Research has been conducted on the island almost every year since then, for varying lengths of time during summer. Home to the Prince Leopold Island Migratory Bird Sanctuary The island is significant as a summer habitat and breeding ground for large populations of several arctic bird species	Evidence of Inuit habitation in the form of house pits and bones from bowhead whales and other marine mammals is present on the north and southeast spits of the island	Prince Leopold Island
Cunningham Inlet 74° 6'37.67N / 093°48'25.17W	Tourism Activities	Crown	one of the best places on earth to watch belugas, which return every summer and stay until August.	N.A	N/A
Coningham Bay 71°48'22.56N 71°50'42.22N - 096°46'43.45W 096°43'26.95W	Tourism Activities	Crown	N./A	N./A	N./A
Tasmania Islands 71°15'44.49N / 096°33'30.38W	Tourism Activities	Crown	Uninhabited islands	n/A	N/A
King William Island 69°54'12.42N 69°40'36.00N - 097°51'49.58W 098°18'14.00W	Tourism Activities	Crown	Discovered in 1830 by Commander James Ross, it was named for the then-reigning British monarch, William IV.In 1903, Norwegian explorer Roald Amundsen, looking for the Northwest Passage,	Final landing spot for the crew of the HMS Erebus and HMS Terror. All 105 men who set out for the Back River perished, and reconstructions of events that led to that result have largely been based	Gjoa Haven

			sailed through the James Ross Strait and stopped at a natural harbour on the island's south coast. Unable to proceed due to sea ice, he spent the winters of 1903–1904 and 1904–1905 there. The harbour where he lived has the island's only settlement, Gjoa Haven.	on discoveries of their bodies, bones and graves by 19th and early 20th century Inuit and Euro-American search expeditions, and archaeological investigations that commenced in the 1980. Human remains attributed to the Franklin expedition have been found at or reported from 35 locations on King William.	
Cambridge Bay 69° 6'39.60N / 105° 3'41.50W	Tourism Activities	Crown	Cambridge Bay is the location of the Canadian High Arctic Research Station.This multidisciplinary station is operated by Polar Knowledge Canada, a federal agency, and will operate year-round. Cambridge Bay is the centre of government for Kitikmeot, the administrative and transportation hub for this region of Nunavut. It is the largest stop for passenger and research vessels traversing the Northwest Passage.	Archaeological sites reveal ancient Inuit campsites and signs of the first European explorers. There are the tent rings and caches of an ancient dwelling area along the Cycle of the Seasons Trail	Cambridge Bay
Fort Ross 72° 0'35.50N / 094°14'2.55W	Tourism Activities	Crown	Abandoned former trading post on Somerset Island. Founded in 1937, it was the last trading post to be established by the Hudson's Bay Company. It was operational for only eleven years, being abandoned in 1948, as severe ice conditions in the surrounding waters made the site hard to reach and economically unviable. Store building was recently refurbished and strengthened,	N/A	Taloyoak

			and is still used as a shelter by Inuit caribou hunters from Taloyoak, and as a refuge for researchers and small boats		
Hazard Inlet 72° 3'27.22N / 094° 6'30.18W	Tourism Activities	Crown	The long-abandoned village at Qariaraqyuk is located in a key whaling area in the Central High Arctic of Canada. It is the largest Thule village known, and its 57 whale-bone winter houses may have housed a population of about 300 people.	Archaeological excavations revealed much evidence of whale hunting, including toboggans made of whale baleen. People lived in the village at Qariaraqyuk between about 800 to 500 years ago, and then abandoned it for reasons that remain uncertain.	Fort Ross

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Pond Inlet	Theresa Dalueg / Dave Stockley	Municipality of Pond Inlet	2022-02-15
Gjoa Haven	gfsao@qiniq.com - no response to our email	Hamlet of Gjoa Haven	2022-06-03
Cambridge Bay	Angela Gerbrandt	Municipality of Cambridge Bay	2022-03-01
Qikiqtarjuaq	munqik@qiniq.com	SAO, Hamlet Office	2022-06-21

Authorizations

Indicate the areas in which the project is located:

Kitikmeot
North Baffin
South Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Canadian Wildlife Service	Pending	Applied, Decision Pending		
Qikiqtani Inuit Association	Pending	Applied, Decision Pending		
Kitikmeot Inuit Association	Pending	Applied, Decision Pending		
Government of Nunavut, Department of Economic Development & Transportation	Outfitter's License	Active	2022-06-15	2022-12-31
Government of Nunavut, Department of Environment	Wildlife Observation License	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Water	Cruise Vessel; ms Greg Mortimer	

Project accomodation types

Other,

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Zodiacs	15	5.85 long	MilPro Mark 5 heavy-duty, commercial grade inflatable tender boats. Each Zodiac can carry a maximum number of 15 persons (ISO6185); however, during operations no more than 10 passengers and one driver are carried on board. Usually, a total of 8 to 10 Zodiacs are used at any one time for transporting passengers between the cruise vessel and shore, or for sight-seeing cruises.
Kayaks	24	5.0m	The vessel is equipped with 14 x double (Point65 Doubloon) and 10 x single (6 x Point65 'Sea Cruiser'; and 4 x 'Whiskey 16 Tour') sea kayaks. The maximum number of passengers that can kayak on each voyage is 20, with a minimum guide to client ratio of 1:10. One safety Zodiac is assigned to be remain within close proximity to the kayaking operation at all times.
MS GREG MORTIMER	1	Length overall: 104.4m; Breadth 18.4m; Gross Registered Tonnage: 8035	Vessel providing transport and accommodations

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Information is not available						

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	Vessel will consume on board supply of fresh water and will only intake seawater to provide potable water for on board consumption when necessary.	Vessel will only intake seawater when necessary. Retrieval location will depend upon location of vessel when intake required.

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Marine Based Activities	Combustible wastes	TBC	All waste, waste water and waste oil generated during operations will be retained onboard until the vessel reaches a port with suitable discharge facilities.	The treatment and disposal of waste products produced in the course of vessel operations is carried out in accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL); and other relevant regulations and legislation [e.g., Transport Canada: 'Arctic Waters Pollution Prevention Act' (AWPPA) and related regulations]. All MARPOL regulations covering the treatment of oil and oily water residues; treatment of sewage and grey water; disposal of waste and other pollutants are either met or exceeded.
Marine Based Activities	Greywater	TBC	All waste, waste water and waste oil generated during operations will be retained onboard until the vessel reaches a port with suitable discharge facilities.	The treatment and disposal of waste products produced in the course of vessel operations is carried out in accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL); and other relevant regulations and legislation [e.g., Transport Canada: 'Arctic Waters Pollution Prevention Act' (AWPPA) and related regulations]. All MARPOL regulations covering the treatment of oil and oily water residues; treatment of sewage and grey water; disposal of waste and other pollutants are either met or exceeded.
Marine Based	Hazardous	TBC	All waste, waste water	The treatment and

Activities			and waste oil generated during operations will be retained onboard until the vessel reaches a port with suitable discharge facilities.	disposal of waste products produced in the course of vessel operations is carried out in accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL); and other relevant regulations and legislation [e.g., Transport Canada: 'Arctic Waters Pollution Prevention Act' (AWPPA) and related regulations]. All MARPOL regulations covering the treatment of oil and oily water residues; treatment of sewage and grey water; disposal of waste and other pollutants are either met or exceeded.
Marine Based Activities	Non-Combustible wastes	TBC	All waste, waste water and waste oil generated during operations will be retained onboard until the vessel reaches a port with suitable discharge facilities.	The treatment and disposal of waste products produced in the course of vessel operations is carried out in accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL); and other relevant regulations and legislation [e.g., Transport Canada: 'Arctic Waters Pollution Prevention Act' (AWPPA) and related regulations]. All MARPOL regulations covering the treatment of oil and oily water residues; treatment of sewage and grey water; disposal of waste and other pollutants are either met or exceeded.
Marine Based Activities	Sewage (human waste)	TBC	All waste, waste water and waste oil generated during operations will be retained onboard until the vessel reaches a port with suitable discharge facilities.	The treatment and disposal of waste products produced in the course of vessel operations is carried out in accordance with the International Convention for the Prevention of

				Pollution from Ships (MARPOL); and other relevant regulations and legislation [e.g., Transport Canada: 'Arctic Waters Pollution Prevention Act' (AWPPA) and related regulations]. All MARPOL regulations covering the treatment of oil and oily water residues; treatment of sewage and grey water; disposal of waste and other pollutants are either met or exceeded.

Environmental Impacts:

Human activities ashore have the potential to result in 'harmful interference' with flora, fauna and ecological processes. Breeding birds or hauled-out seals may be disturbed by visual or acoustic effects of human activity. In the case of breeding birds, disturbance of incubating, brooding or guarding parents could predispose eggs or young to environmental stress (e.g., chilling/overheating); increased risk of predation; or injury by neighbors. Sensitive vegetation may be damaged if people are careless and walk over them, rather than around them. Despite these potential impacts, AURORA EXPEDITIONS believes that - based on their normal practices and procedures - their operations will have no more than negligible impact on the environment. In order to undertake 'off ship' excursions or activities, the vessel will stop (or anchor) in areas to ensure minimal disturbance to proximate wildlife (i.e., known seabird colonies, breeding beaches and other aggregations), and minimal damage to sensitive sea floor substrate areas while maximising vessel (and in turn, passenger and crew) safety. In areas not suitable for anchoring, the M/V GREG MORTIMER has the capability of 'virtual anchoring' (process by which the vessel does not drop the anchor in order to retain a fixed position, but does so by using its bow thruster and propellers in conjunction with the on-board GPS system). All of the vessel's windows are equipped with 'black-out' blinds which can be rolled down at dusk. Outside deck lights are also turned off, leaving only the minimum safety-required deck lighting. These measures not only reduce light pollution, but assist in preventing birds being inadvertently attracted to the vessel and the possibility of bird strike. Wildlife watching is one of AURORA EXPEDITIONS' core activities and is a potentially rich and exciting experience but must be conducted safely and sensitively. As AECO members, AURORA EXPEDITIONS aligns with the basic principle of 'no disturbance

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

See attached the marine route and proposed landing site coordinates for each voyage. Proposed Wildlife sites include Niginganiq National Wildlife Area, Bylot Island Migratory Bird Sanctuary, Prince Leopold Island Migratory Bird Sanctuary

Description of Existing Environment: Biological Environment

NIGINGANIQ NATIONAL WILDLIFE AREA•Polar Bear, Peregrine Falcon (Special Concern)•Ivory Gull (Endangered)•Ross' Gull (Threatened)•Bowhead Whale, Beluga Whale, Narwhal, Atlantic Walrus, Ringed Seal, and Wolverine (Special Concern)•Caribou (Threatened)BYLOT ISLAND MIGRATORY BIRD SANCTUARY•Peregrine Falcon, Red Knot (Special Concern)•Bowhead Whale•Thick-billed murre, black-legged kittiwake, greater snow goosePRINCE LEOPOLD ISLAND MIGRATORY BIRD SANCTUARY•Polar Bear (Special Concern)•Caribou (Endangered)•Black guillemot, black-legged kittiwake, glaucous gull, northern fulmar, snow bunting and thick-billed murre

Description of Existing Environment: Socio-economic Environment

See attached the marine route and proposed landing site coordinates for each voyage. Communities of Pond Inlet, Qikiqtarjuaq and Cambridge Bay will be visited.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

Please see detailed Project Description for Impacts and Proposed Mitigation Measures. Please note, all passengers and crew must be fully vaccinated against Covid-19 and will be tested prior to boarding the vessel. Any individual who tests positive during the cruise will isolate in their cabin for 10 days as per Federal regulation.

Cumulative Effects

Please see project description.

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
Construction																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Operation																									
Tourism Activities		-	-	-	-	M	-	-	-	-	-	-	M		-	M	M	M	M		P	-	-	-	-	-
Decommissioning																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-	-

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

Project Location

List of Project Geometries

1	point	Qikiqtarjuaq - Clearance
2	point	Isabella Bay 69°37'10.46N / 067°40'7.51W
3	point	Pond Inlet
4	point	Bylot Island 72°42'55.13N 73°43'38.85N - 079°20'18.05W 081° 7'50.44W - Ship's Cruise
5	point	Dundas Harbour 74°31'54.32N / 082°24'56.05W
6	point	Croker Bay 74°41'52.95N / 083°14'22.92W
7	point	Beechey Island 091° 5'10.67W / 091°49'46.70W
8	point	Radstock Bay 74°41'17.24N / 091° 5'10.67W
9	point	Prince Leopold Island 74° 1'3.57N / 089°59'59.48W
10	point	Cunningham Inlet 74° 6'37.67N / 093°48'25.17W
11	point	Coningham Bay 71°48'22.56N 71°50'42.22N - 096°46'43.45W 096°43'26.95W
12	point	Tasmania Islands 71°15'44.49N / 096°33'30.38W

13 point King William Island 69°54'12.42N 69°40'36.00N - 097°51'49.58W 098°18'14.00W

14 point Cambridge Bay 69° 6'39.60N / 105° 3'41.50W

15 point Fort Ross 72° 0'35.50N / 094°14'2.55W

16 point Hazard Inlet 72° 3'27.22N / 094° 6'30.18W