NORTHWEST ARCTIC
SUBAREA CONTINGENCY PLAN

POTENTIAL PLACES OF REFUGE
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POTENTIAL PLACES OF REFUGE

PART ONE – INTRODUCTION

A. PURPOSE AND SCOPE

This Potential Places of Refuge (PPOR) section supplements information found elsewhere in the Northwest Arctic Subarea Contingency Plan for Oil Spills and Hazardous Substances Releases, commonly referred to as the Northwest Arctic Subarea Contingency Plan (SCP). Information about sensitive areas associated with PPOR may be found in the Sensitive Areas - Section D of the SCP. Information about response strategies to protect sensitive areas and areas of public concern associated with PPOR may be found in the Geographic Response Strategies – Section G of the SCP.

A "place of refuge" is defined as a location where a vessel needing assistance can be temporarily moved to, and where actions can then be taken to stabilize the vessel, protect human life, reduce a
hazard to navigation, and/or protect sensitive natural resources and other uses of the area (e.g., subsistence harvesting, commercial fishing, recreational boating). A place of refuge may include constructed harbors, ports, natural embayment's, or offshore waters. This section identifies potential docking, anchoring, and mooring locations that may be selected as Places of Refuge in the Northwest Arctic Subarea. Actual designation of a Place of Refuge will always be an incident-specific decision made by the U.S. Coast Guard Captain of the Port (COTP) for Western Alaska.

The Northwest Arctic Subarea has thousands of miles of environmentally sensitive coastline. In addition to sensitive shoreline habitats such as marshes, sheltered tidal flats, and exposed tidal flats, Northwest Arctic supports a number of sensitive biological resources including birds, fish and shellfish, and marine mammals. The local communities are heavily reliant on marine resources for their livelihood and subsistence. Because of this unique relationship with the marine environment, much of the coast is utilized for subsistence activities and is extremely sensitive to the impacts of marine commerce, especially oil spills. Additional information about identification of sensitive areas and resources may be found in Section D of the SCP. Additional information about protection of sensitive areas may be found in Section G of the SCP.

The Northwest Arctic Subarea is used for limited marine commerce. This commerce has been directed at resupplying the communities and industry during the ice-free period of the summer and fall months. With climate change precipitating the ongoing reduction in sea ice and the subsequent expansion of the operating season, it is likely that shipping and industrial activities will increase throughout the Arctic. This activity will see a corresponding rise in marine commerce utilizing a variety of different types of vessels. Fuel barges, freighters, container ships, drilling ships, tankers and cruise ships operating in, and transiting through the Northwest Arctic may become more routine.

The Northwest Arctic is a unique operating environment, with limited infrastructure, extreme weather and few protected anchorages. These considerations affect the ability to accommodate stricken vessels of any size in these waters. The protection offered in most of the sites listed is limited and available only under certain circumstances outlined in the plans. In developing this

section, consideration was given to historical anchorage sites near communities. These are well know areas that have access to some of the limited infrastructure in the area that may affect repairs and assist in the response.

It is widely acknowledged that there is no perfect docking, mooring or anchoring, site for all vessels in all situations. A vessel's length and draft are major determining factors when considering a site for refuge. Deep draft vessels, such as oil tankers and cruise ships, cannot be taken to certain locations. Some ports and bays may have shallow approaches and deep draft ships cannot enter these locations.

Shallower draft vessels, such as fishing vessels and supply vessels may be able to utilize these ports. For the purposes of this section, vessels have been divided into four categories:

Deep Draft II Vessels are vessels with lengths up to and greater than 1000 feet and typically have drafts of 40-60 feet. The predominant deep draft vessels that may operate in the Northwest Arctic are container ships and tankers that are designed to the New Panamax dimensions.

Deep Draft I Vessels are vessels with lengths up to and greater than 1000 feet and typically have drafts of 20-40 feet. The predominant deep draft vessels of this type that may operate in the Northwest Arctic are cruise ships, container ships and tankers.

Light Draft Vessels are vessels up to 450 feet in length and have drafts to 20 feet. Freighters, catcher processors, and ocean going tugs are the most common light draft vessels operating in the Northwest Arctic.

Shallow Draft Vessels are less than 300 gross tons and have drafts less than 15 feet.

The information in this section may be used for a vessel of any size that has suffered an incident, which creates a need for a temporary place of safe refuge, but it is focused on deep draft and light draft size vessels. Shallow draft sites were identified as assets for responding to PPOR incidents.

B. HOW THE PPOR DOCUMENTS WERE DEVELOPED

This section was developed in 2011 by a Work Group of interested and knowledgeable stakeholders in keeping with the Alaska Regional Response Team's "Guidelines for Places of Refuge Decision-Making," (Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases, Annex O). The Work Group arrived at a consensus on the potential places of refuge and submitted this document to the Subarea Committee for approval and inclusion in the Northwest Arctic Subarea Contingency Plan. The Work Group participants represented the following organizations:

Alaska Department of Environmental Conservation
Alaska Department of Natural Resources
Alaska Department of Fish and Game
Alaska Marine Pilots Association

Alaska Sea Grant Marine Advisory Program
U.S. Coast Guard
U.S. Department of the Interior – Offices of Environmental Policy and Compliance, Fish and Wildlife Service, and National Park Service
U.S. Environmental Protection Agency
U.S. Department of Commerce-NOAA
National Marine Fisheries Administration
Transport Canada
Canadian Coast Guard
Northwest Arctic Borough
Bering Straits Native Corporation
Kawerak Incorporated
City of Nome
Gambell IRA Council
Native Village of Savoonga IRA Council
Kawerak Incorporated

First Step: Risk Identification

The first step of the PPOR process identified candidate sites (anchorages, moorings, docks/ piers) within the Northwest Arctic Subarea. The Workgroup began by researching available information to determine major risk factors in the Northwest Arctic Subarea. Maps were developed, depicting the following risk and logistical information:

- Locations of bulk fuel facilities and pipelines (Figure H-1);
- Location of noncrude carrier routes (Figure H-2);
- Locations of communities with spill response agreements, spill response hubs and equipment depots (Figure H-3);
- Locations of major airports (Figure H-4);
- Locations of marine casualty events (Figure H-5)
- Locations of subsistence and nearshore fisheries (Figure H-6)

Figure H-7 is a composite map of all risk factors combined.

Second Step: Feasibility

The second step led to the identification of 18 PPOR sites within the Northwest Arctic Subarea. A site assessment matrix (Table H-2) and key (Table H-1) were developed. The matrix consists of identified sites in each row with information about risk factors and site selection criteria in the columns. The information presented for each site includes:

- PPOR identification;
- Response Zone #;
- Type of Berth;
- Location Name;
- Latitude;
- Longitude;

- Maximum Vessel Depth
- Anchoring Swing Room or Dock Face in feet;
- Depth at dock face:
- Depth at anchorage;
- Bottom Type;
- Exposure to;
- Conflicting uses;
- Ability to boom;
- GRS in the area;
- Sensitive Resources;
- Distance to population centers; and
- Distance to alternate PPOR.

The PPOR identification method begins with a "DII", "DI" "L" or "S" which indicates the appropriate size vessel for the site. Following the letter is a number which indicates the response zone in which the site is located. This is then followed by a number which is a unique site identifier with no importance attached to the magnitude of the number. The site assessment matrix contains potentially suitable emergency anchorage, docking and moorage locations based on operational factors such as water depth, swing room, exposure/protection, and navigational approach. Sites are grouped by the individual response zones and then by the maximum vessel size category suitable for the site.

Third Step: Factors to Consider

Step 3 identified specific factors that should be considered as part of the site assessment process. These factors include:

- Distance from population and logistics centers;
- Proximity to environmentally sensitive areas, wildlife resources, threatened or endangered species or habitats, and/or historic properties;
- Uses, such as fisheries, subsistence use, tourism and recreational use, and the location of public or private facilities;
- Response factors such as booming feasibility and the proximity to existing Geographic Response Strategy (GRS) sites; and
- The distance from the closest alternative PPOR.

Fourth Step: Review and Comment

Step 4 afforded the work group and stakeholders in the area the opportunity to review and comment on the draft documents. In this review, the workgroup ensured that information critical to their area of expertise is included.

C. HOW TO USE THE POTENTIAL PLACES OF REFUGE SECTION

The "Guidelines for Places of Refuge Decision-Making" (Annex O of the Unified Plan) will be used for places of refuge decision-making in the Northwest Arctic Subarea.
(File available at: http://www.dec.state.ak.us/spar/ppr/plans/uc.htm)

Part Two of this document contains site-specific information for the PPOR in the Northwest Arctic Subarea. An index map at the beginning of this section shows the location of the PPOR maps. Each PPOR map consists of two parts: 1) a map page showing a locator map, and detailed nautical charts; and 2) a table page providing site information and local site conditions. All geographic data was collected using Mercator Projection, North American Datum 1983.

D. WHO TO CONTACT FOR INPUT

Comments and recommendations on these PPOR are welcomed. Please send your comments to either of the following agencies:

Alaska Department of Environmental Conservation
Prevention Preparedness and Response Program
555 Cordova Street
Anchorage, AK 99501

United States Coast Guard
Captain of the Port for Western Alaska
49000 Army Guard Rd
JBER, AK 99505

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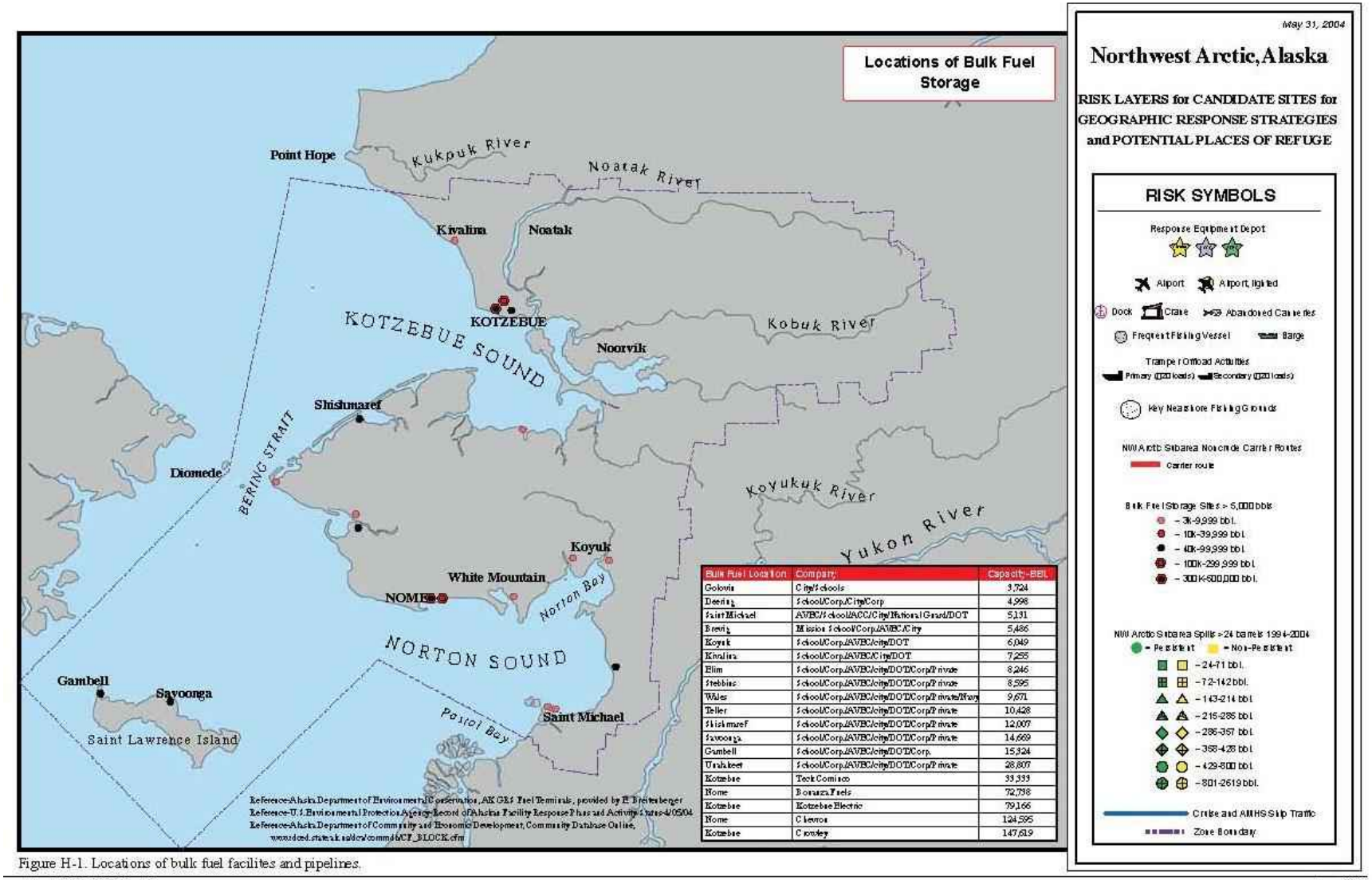


Bulk Fuel Location	Company	Capacity-BBL
Golovin	City/Schools	3,724
Deering	School/Corp/City/Corp	4,998
Saint Michael	AVEC/School/ACC/City/National Guard/DOT	5,131
Brevig	Mission School/Corp/AVEC/City	5,486
Koyuk	School/Corp/AVEC/city/DOT	6,049
Kivalina	School/Corp/AVEC/City/DOT	7,255
Elim	School/Corp/AVEC/city/DOT/Corp/Private	8,246
Stebbins	School/Corp/AVEC/city/DOT/Corp/Private	8,595
Wales	School/Corp/AVEC/city/DOT/Corp/Private/Navy	9,671
Teller	School/Corp/AVEC/city/DOT/Corp/Private	10,428
Shishmaref	School/Corp/AVEC/city/DOT/Corp/Private	12,007
Savoonga	School/Corp/AVEC/city/DOT/Corp/Private	14,669
Gambell	School/Corp/AVEC/city/DOT/Corp.	15,324
Unalakleet	School/Corp/AVEC/city/DOT/Corp/Private	28,807
Kotzebue	Teck Comisco	33,333
Nome	Bonanza Fuels	72,738
Kotzebue	Kotzebue Electric	79,166
Nome	Chevron	124,595
Kotzebue	Crowley	147,619

Figure H-1. Locations of bulk fuel facilites and pipelines.

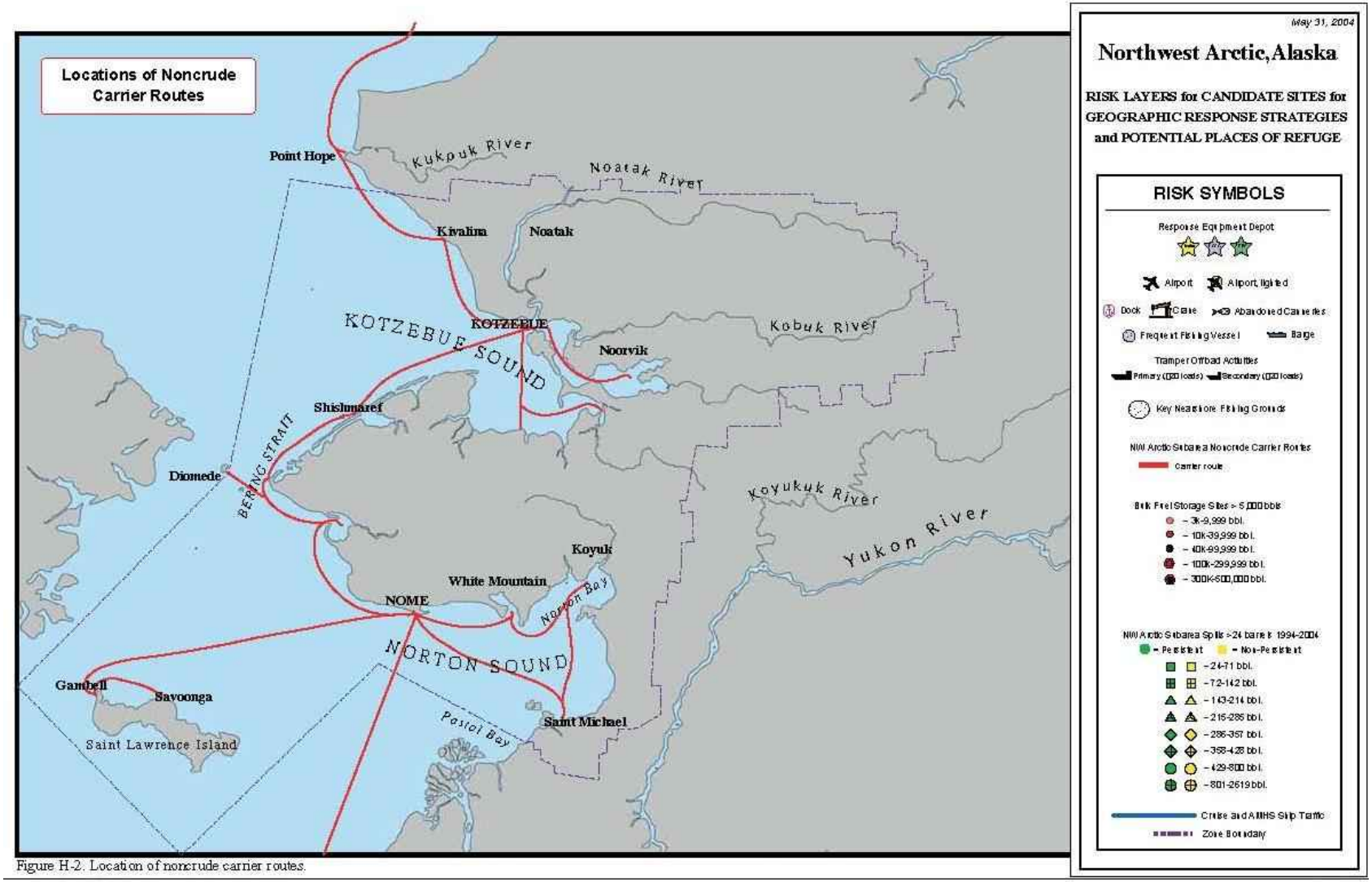


Figure H-2. Location of noncrude carrier routes.

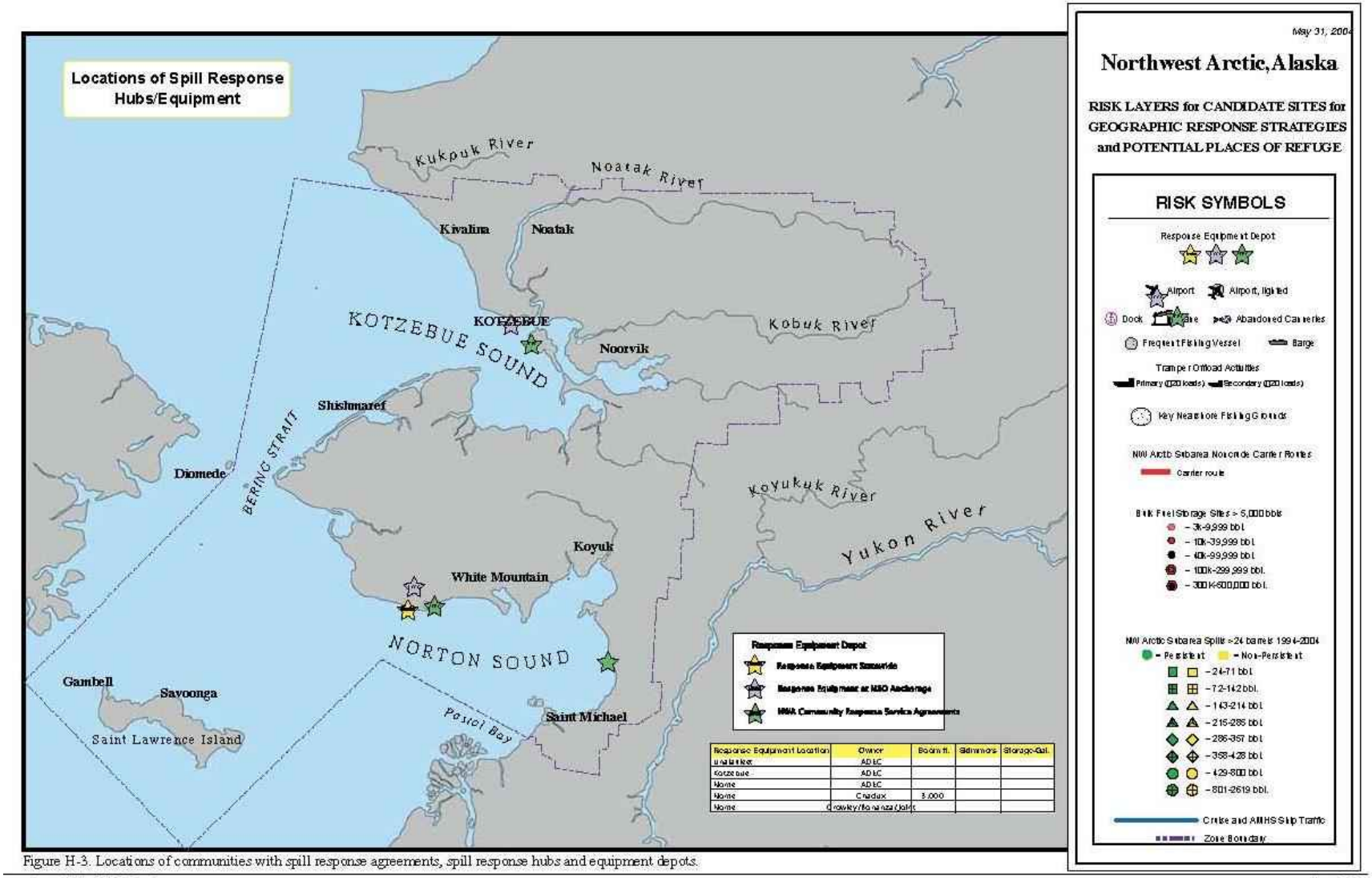


Figure H-3. Locations of communities with spill response agreements, spill response hubs and equipment depots.

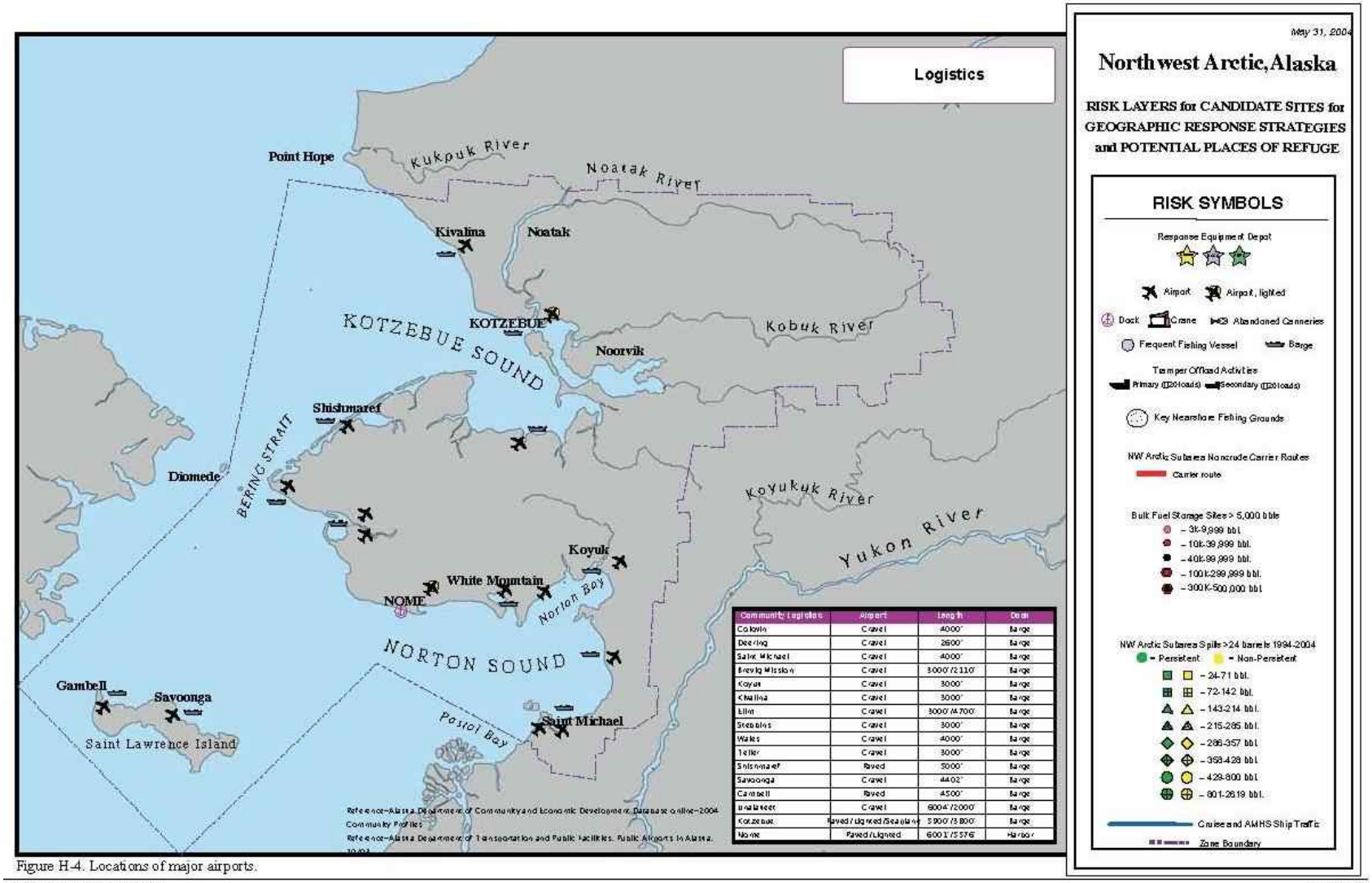
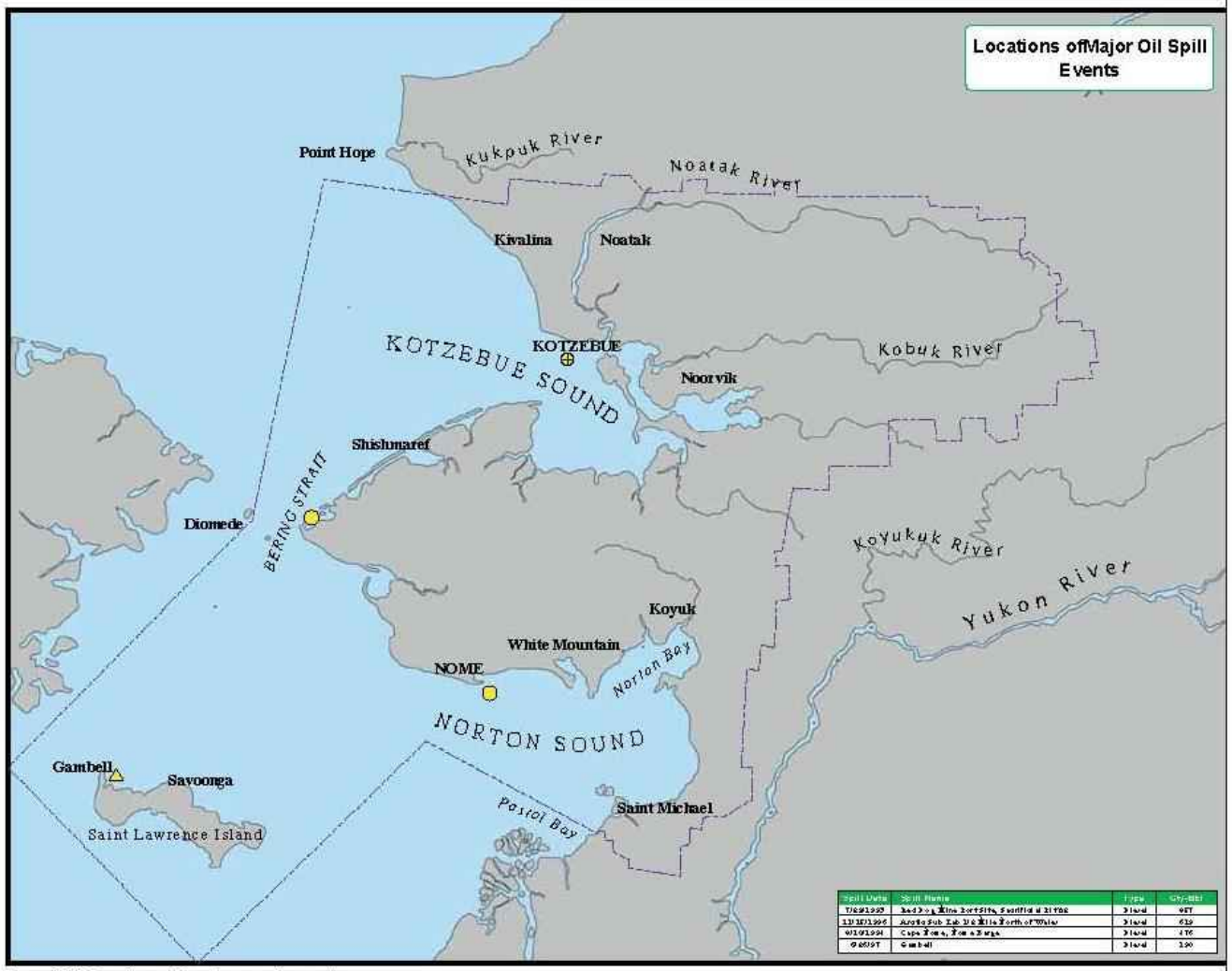


Figure H-4. Locations of major airports.



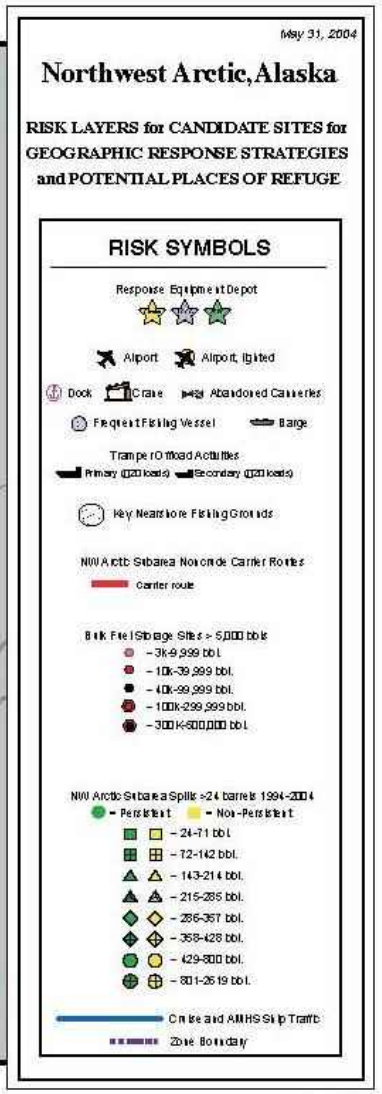


Figure H-5. Locations of marine casualty events.

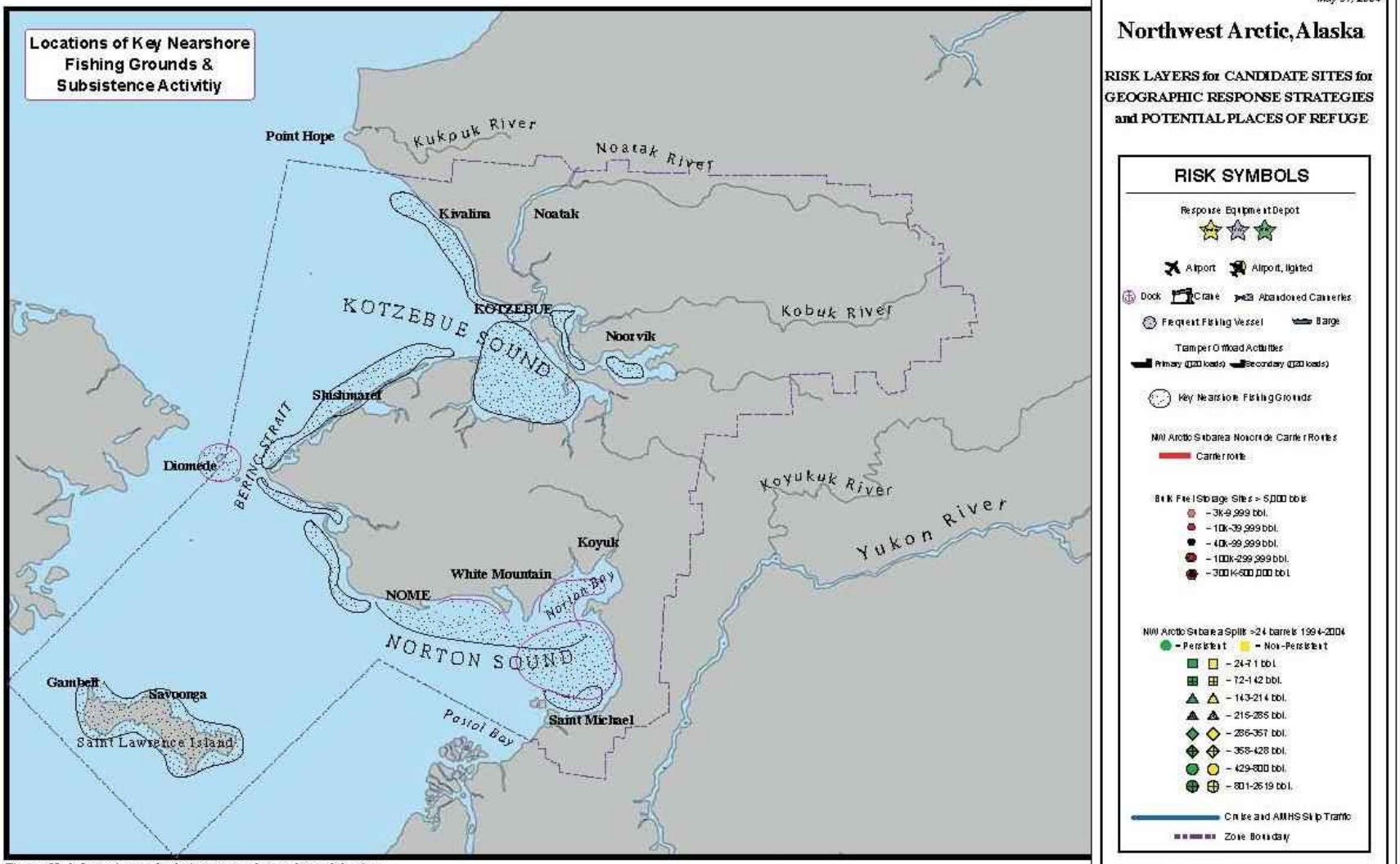


Figure H-6. Locations of subsistence and nearshore fisheries.

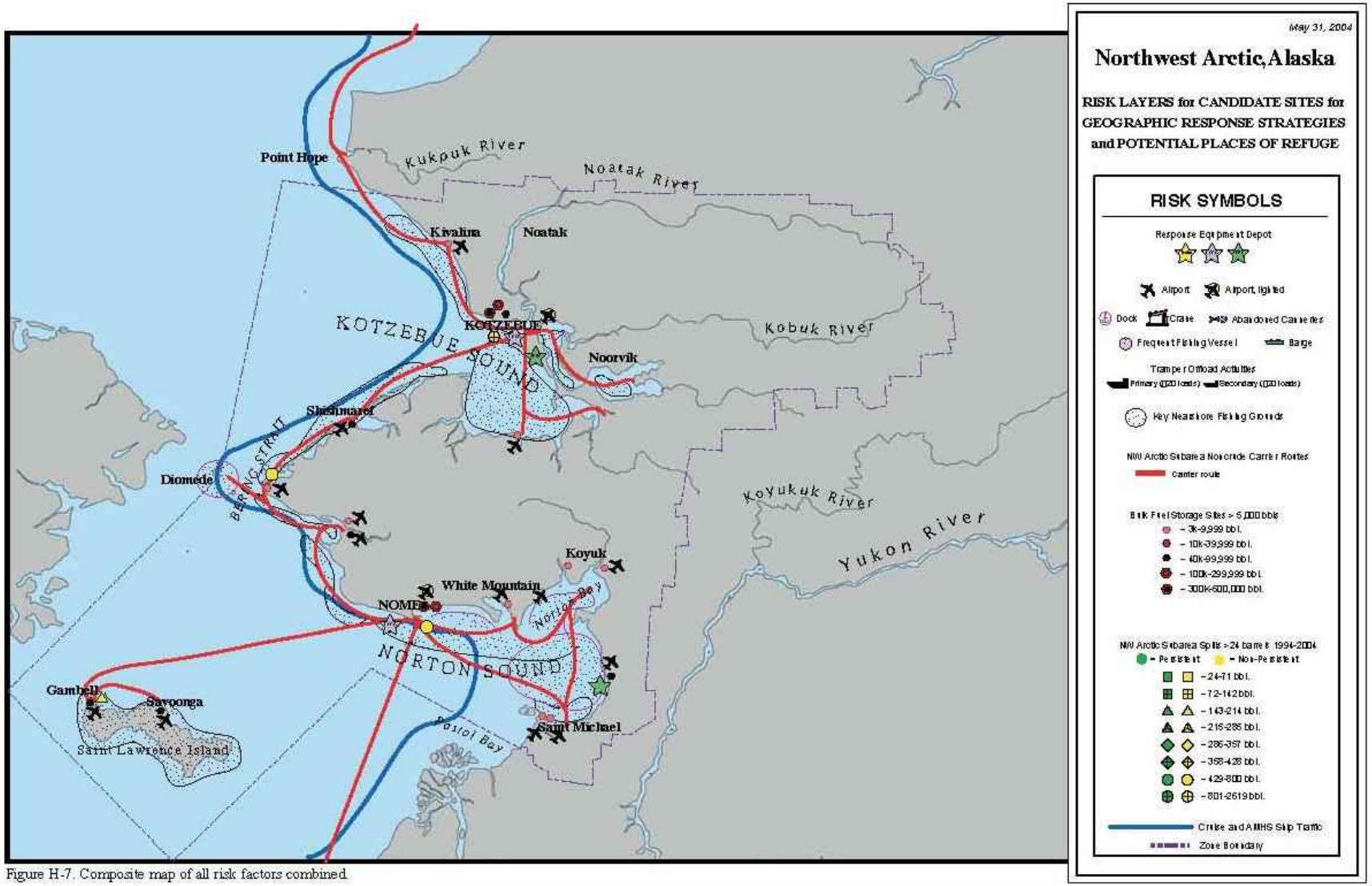


Figure H-7. Composite map of all risk factors combined.

North Slope and Northwest Arctic
Potential Places of Refuge
Site Assessment Matrix

PPOR ID# (size-zone-number)	Response Zone #	Type of berth	Location Name	Lat.	Lon.	Max Vessel Depth	Anchoring SwingRoom or Dock Face(w/ Dolphins) in ft.	Depth at dock face in FEET (MLLW)	Depth at anchorage in FATHOMS	Bottom Type	Exposure to	Conflicting uses	Ability to Boom	Sensitive Resources	Dist. to Population Center(nm)	Dist. To the next Alternative PPOR (nm)
Northwest Arctic Potential Places of Refuge																
			Zone-01 Saint Lawrence Island													
DII-01-01	1	Anchorage	Gambell Anchorage	63º40.57'N	171º33.62'W	60	NR		8	Rky	N-E / S-N	S	N	E	7 to GB	25 to DII-01-02
DII-01-02	1	Anchorage	Savoonga Anchorage	63º42.80'N	171º34.27'W	60	NR		13	NI	W-E	S	N	E	1.3 to SV	25 to DII-01-01
DII-01-03	1	Anchorage	Powooiliak Bay	63º13.07'N	170º49.88'W	60	NR		13	M,Rky	S-W	S	N	CH	50 to GB	60 to DII-01-04
DII-01-04	1	Anchorage	Manik Lagoon	62º59.42'N	169º14.27'W	60	NR		12	S,Sh	E-S	S	N	CH	70 to SV	60 to DII-01-03
			Zone-02 Norton Sound													
DII-02-01	2	Anchorage	Nome Anchorage	64º26.48'N	165º27.10'W	60	5000		10	S,G	E-W	CF	N		3 to NM	20 to DI-02-02
DI-02-01	2	Anchorage	St. Michael Bay	63º30.73'N	161º49.71'W	40	NR		5	Hrd	N-NW	CF, S	WD	CH	6 to SM	110 to DII-02-01
DI-02-02	2	Anchorage	Sledge Island	64º31.94'N	166º11.30'W	40	3800		3	Rky	WD		N	CH	20 to NM	20 to DII-02-01
L-02-01	2	Anchorage	Golovnin Bay	64º32.99'N	163º06.96'W	20	2100		4 (2-approach)	Hrd,Stky	S	CF, S	WD	CH	1 to G	110 to DI-02-01
L-02-02	2	Dock	City Dock-Port of Nome	64º29.65'N	165º26.33'W	20	200	22.5	N/A	NA	S	CI	Y		.75 to NM	3.8 to DII-02-01
L-02-03	2	Dock	Westgold Dock-Port of Nome	64º29.76'N	165º26.24'W	20	190	22.5	N/A	NA	S	CI	Y		.75 to NM	3.8 to DII-02-01
			Zone-03 Seward Peninsula													
DII-03-01	3	Anchorage	Cape York	65º29.10'N	167º43.27'W	60	4000		12	M,G,Rky	SE-W	S	WD	CH	14 to WH, 32 to BM	7.5 to DII-03-02
DII-03-02	3	Anchorage	Tin City	65º32.59'N	167º57.86'W	60	6000		14	S	SE-W	S	WD	CH	6 to WH, 39 BM	7.5 to DII-03-01
DII-03-03	3	Anchorage	Little Diomede	65º47.41'N	168º54.11'W	60	NR		20	Rky	WD	S	N	CH	75 to SH, 22 to WH	27 to DII-03-02
DI-03-01	3	Anchorage	Port Clarence	65º14.62'N	166º40.28'W	35	6000		6	M,Stky	Sheltered	S	WD	CH	8 to BM	28 to DII-03-02
DI-03-02	3	Anchorage	Shishmaref Anchorage	66º16.43'N	166º18.01'W	40	NR		6	M	N-E	S	N	CH	6 to SH	70 to DII-03-03
			Zone-04 Kotzebue Sound													
DI-04-01	4	Anchorage	Goodhope Bay	66º13.12'N	168º54.11'W	40	1800		6	M	N-E	S	WD	CH	46 to KZ	36 to DI-04-02
DI-04-02	4	Anchorage	Sea Buoy Anchorage	66º48.08'N	163º14.90'W	40	NR		8	M,S	W	S	WD	CH	17 to KZ	36 to DI-04-02
L-04-01	4	Dock	Red Dog Mine Port	67º36.17'N	164º04.06'W	15	350	15	NA	M,S	S-W	CI	WD	CH	3 to RD	60 to DI-04-02
North Slope Potential Places of Refuge																
			Zone-01 Pt. Hope to Wainwright													
DII-01-01	1	Anchorage	Pt Hope	68º26.14'N	166º38.89'W	60	12000		6	M	N-W	S	Y	CH	.8 to PH	98 to DII-01-02
DII-01-02	1	Anchorage	Point Lay Anchorage	69º46.06'N	163º21.88'W	60	24000		6	M	N-W-SW	S	Y	CH	1.3 to PL	54 to DII-01-03
DII-01-03	1	Anchorage	Icy Cape Anchorage	70º22.47'N	161º28.28'W	60	24000		8	M	N-W	S	N	CH	31 to W	30.5 to DII-01.-4
DII-01-04	1	Anchorage	Wainwright Anchorage	70º39.26'N	160º14.27'W	60	7500		9	M	N-W	S	N	CH	7 to W	6 to S-01-01
S-01-01	1	Anchorage	Wainwright Inlet	70º35.84'N	160º02.94'W	8	4500		?	M	NW	S	Y	CH	4 to W	6 to DII-01-04
			Zone-02 Peard Bay to Harrison Bay													
DII-02-01	2	Anchorage	Barrow	71º19.97'N	156º50.30'W	60	6500		8	M	N-W	S	N	CH	2 to P	12 to DI-02-02
DI-02-01	2	Anchorage	Peard Bay	70º53.99'N	158º25.10'W	40	15700		6	M, Cl	N	S	N	CH	35 to W	38 to DII-02-01
DI-02-02	2	Anchorage	Point Barrow	71º24.10'N	156º17.61'W	40	17300		5.5	M	N-E-W	S	N	CH	11 to B	12 to DII-02-01
L-02-01	2	Anchorage	Dease Inlet	71º13.83'N	155º53.35'W	20	3000		1	M	N-E-W	S	WD	CH	16 to B	15 to DI-02-02
L-02-02	2	Anchorage	Harrison Bay	70º37.52'N	151º26.88'W	20	12150		5.5	M,S	N- E	S	WD	CH	105 to B	64 to DI-03-01
			Zone-03 North Slope													
DII-03-01	3	Anchorage	Camden Bay	70º10.88'N	144º38.67'W	60	12000		10	M,S	N-E-W	S	N	CH	20 to K	66 to DI-03-02
DI-03-01	3	Anchorage	Midway Island Anchorage	70º35.62'N	148º13.13'W	40	20000		8	M	N-E-W	S	N	CH	16 to P	7.5 to DI-03-02
DI-03-02	3	Anchorage	Cross Island Anchorage	70º31.96'N	147º52.56'W	40	7590		6.5	G - reef	N-E-W	S	N	CH	17 to P	7.5 to DI-03-01
S-03-01	3	Dock	Oliktok Dock	70º30.21'N	149º53.50'W	4	18225	4	N/A	N/A	N-W	CI	WD	CH	30 to P	32 to L-02-02
S-03-02	3	Dock	West Dock	70º23.52'N	148º29.86'W	4	10600	4	N/A	N/A	N-W	CI	WD	CH	3 to P	13.5 to DI-03-01
S-03-03	3	Dock	Badami-Runway/Dock	70º09.19'N	146º53.73'W	4	6000	4	N/A	N/A	N-W	CI	Y	CH	30 to p	30 to DI-03-02
			Canada													
	Canada	Anchorage	Herschel Island	69º31.18'N	138º57.10'W	50	5000		9	M	W	S	WD	CH	130 to K	150 to Tuktoyaktuk
	Canada	Anchorage	Tuktoyaktuk	69º27.82'N	133º14.16'W	20	3000		5	M	N	CI	N	CH	2 to T	10 to the Tuktoyaktuk Dock
	Canada	Dock	Tuktoyaktuk	69º25.66'N	133º59.15'W	15	200	16	N/A		Sheltered	CI	Y	CH	0 to T	10 to the Tuktoyaktuk Anch.

Northwe

PPOR ID#- Vessel Size	Type of berth	Swing Room	Bottom Type	Exposure	Conflicting Uses	Ability to Boom	Sensitive Resources	Distance via Water to Population Center
DII = Deep Draft Vessels lengths up to 1000 feet, 40-60 feet of draft, greater than 10,000 GT DI = Deep Draft Vessels	A= Anchorage D/P= Dock or Pier	Distance measured to nearest shoal waters or hazard NR=Not restricted/open anchorage where vessel	M= Mud Rky= Rocky G= Gravel	Exposed to winds/seas from the direction noted	CF=Commercial Fishing SF=Sport fishing AQ= Aquaculture	WD=Weather Dependent Y=Yes N=No	E= Threatened or Endangered Species present H=Highly Sensitive as designated by	B = Barrow K = Kaktovik N = Nuiqsut

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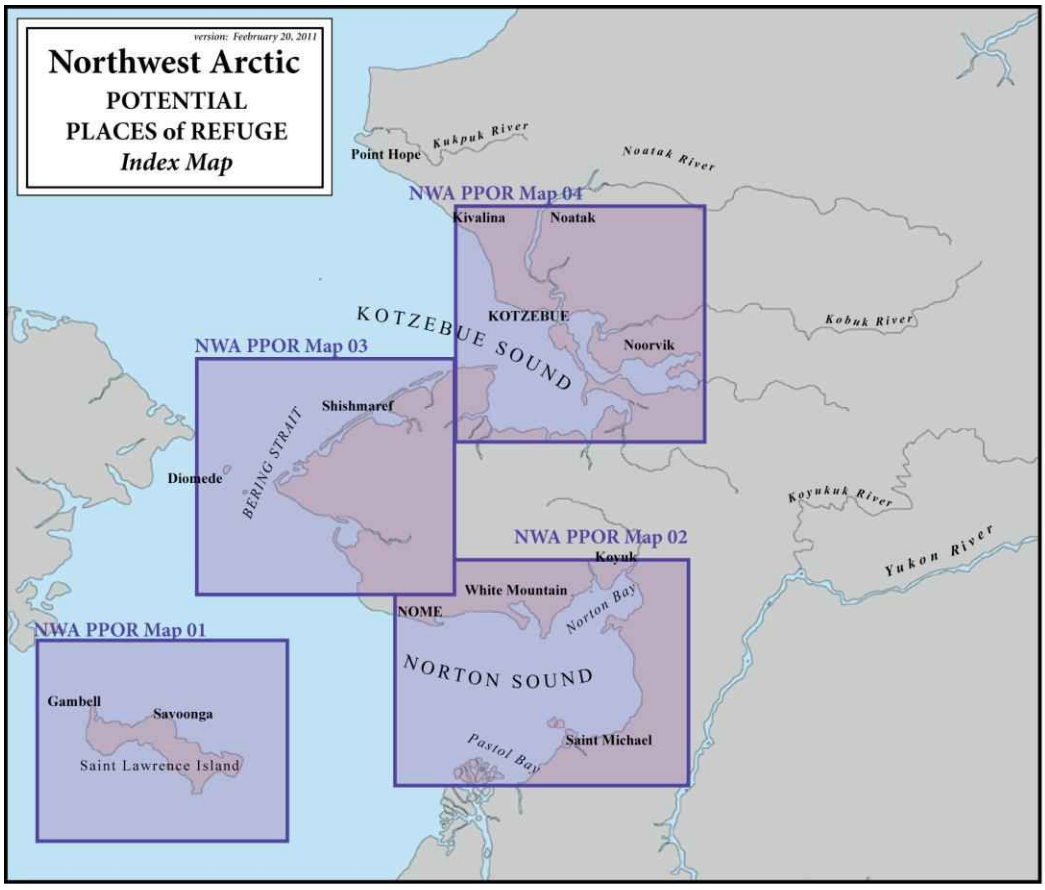
POTENTIAL PLACES OF REFUGE: PART TWO – INDEX & MAPS

Index of PPOR Maps

The Workgroup developed 4 PPOR Maps within the Northwest Arctic Subarea. These maps aid in the site assessment process. These maps are larger in scale, showing a small portion of the Subarea in more detail than the maps in Part One. Figure H-8 provides an overview of the Subarea, identifying the location of each PPOR Map. Each PPOR Map has been assigned an identifying number, which has no relevance other than as a map identifier.



PPOR Maps

Each PPOR Map consists of two parts: 1) a graphic showing a locator map, pictures, and detailed nautical charts showing the location of anchorages, docks, and moorings and other information critical to the selection of a place of refuge; and 2) a series of tables providing site information regarding local site conditions, environmental sensitivities and other considerations.

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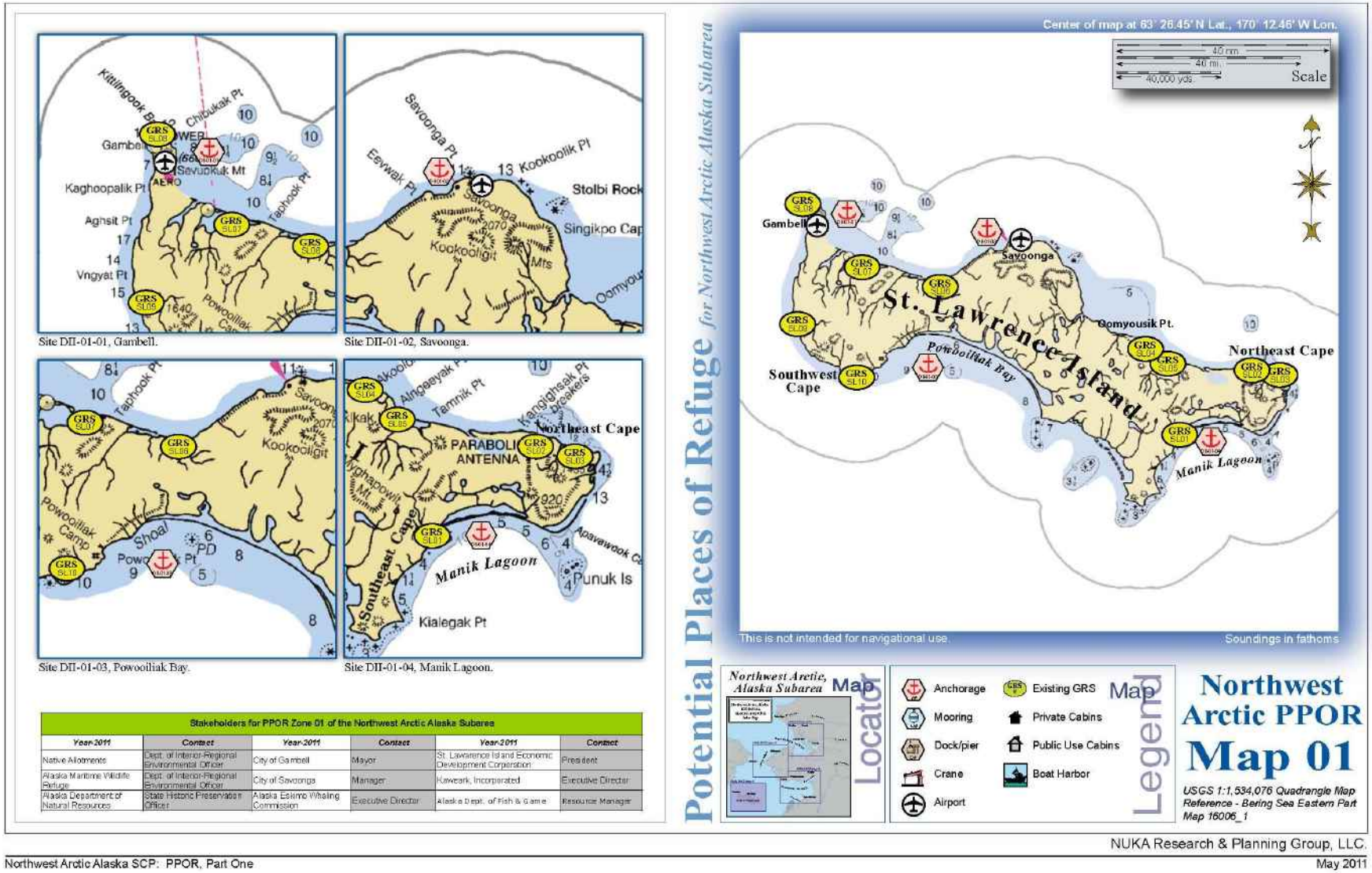

Stakeholders for PPOR Zone 01 of the Northwest Arctic Alaska Subarea					
Year 2011	Contact	Year 2011	Contact	Year 2011	Contact
Native Allotments	Dept. of Interior-Regional Environmental Officer	City of Gambell	Mayor	St. Lawrence Is and Economic Development Corporation	President
Alaska Maritime Wildlife Refuge	Dept. of Interior-Regional Environmental Officer	City of Savoonga	Manager	Kawerak, Incorporated	Executive Director
Alaska Department of Natural Resources	State Historic Preservation Officer	Alaska Eskimo Whaling Commission	Executive Director	Alaska Dept. of Fish & Game	Resource Manager

NUKA Research & Planning Group, LLC.
May 2011

Site Information for *Northwest Arctic PPOR Map 01*

Physical and Operational Characteristics for PPOR Map 01 of the Northwest Arctic Subarea-Saint Lawrence Island				
	Gambell Anchorage	**Savoonga Anchorage**	**Powooiliak Bay**	**Manik Lagoon**
ID Number	**DII-01-01**	**DII-01-02**	**DII-01-03**	**DII-01-04**
Location *(In the general area)*	63°40.57'N 171°33.62'W	63°38.41'N 171°34.27'W	63°13.07'N 171°49.88'W	62°59.42'N 169°14.27'W
Maximum Vessel Size	Deep Draft Vessels - lengths to 1000 ft. or greater, 40-60 ft. of draft, greater than 10,000 GT			
Type of Berthing	Anchorage			
Contact	N/A			
Navigational Approach	Approach from N, NE, E	Approach from N, NE	Approach from SW, S, SE	Approach from SW, S, SE, E
Minimum Water Depths *(MLLW)*	8 Fathoms	13 Fathoms	13 Fathoms	12 Fathoms
Maximum Vessel Draft	60 ft.			
Swing Room or Dock Face *(w/ dolphins)*	3 nm to shore	1.3 nm to shore	5 nm to shoal	7 nm to shoal
Bottom Type	Rocky	Mud	Mud, Rocky	Sand, Shells
Nearest Alternative Dock/Piers	168 nm to DII-02-02	143 nm to DII-02-02	190 nm to DII-02-02	132 nm to DII-02-02
Nearest Alternative Anchorage	25 nm to DII-01-02	25 nm to DII-01-01	60 nm to DII-01-04	60 nm to DII-01-03
Prevailing Winds	SW summer / NE winter	October to April N, NE - 17 knots / May to September variable 10 knots (max 34 knots)		
Currents	Current velocity at other places around St. Lawrence Island is generally less than 1 knot	NW 1 knot on flood / E 1.5 knots ebb	Current velocity at other places around St. Lawrence Island is generally less than 1 knot	
Tides	Varies from 1.2 ft. at Niyrakpak Lagoon entrance to 2.4 ft. at NE Cape			
Sea Conditions	9 fathoms with rock bottom 0.5 offshore mile offshore on either side of point.	Taking the area Bering as a whole, the winds are most frequent from N and NE directions from October through May and are variable, with predominating winds from the directions in the S half of the compass during		
Shelter from Severe Storms	Sheltered from S, W winds / Exposed N-E / S-N	Exposed to W, E	Sheltered from N, W winds / Exposed S, E	Sheltered from N, W winds / Exposed S, E
Fog	Bering Sea: sea fog can drop visability to 7 miles or less in midsummer			
Ice	Ice-free July to October			

Site Considerations for PPOR Zone 01 of the Northwest Arctic Subarea-Saint Lawrence Island				
	Gambell Anchorage	**Savoonga Anchorage**	**Powooiliak Bay**	**Manik Lagoon**
ID Number	**DII-01-01**	**DII-01-02**	**DII-01-03**	**DII-01-04**
Human Health & Safety				
Community-distance to (nm)	Gambell - 7 nm/ pop. 681	Savoonga - 1.3 nm/ pop. 671	Gambell - 50 nm/ pop. 681	Savoonga - 70 nm/ pop. to 671
Health Care Facilities	Bessie A Kaningok Health Clinic: 907-985-5012	Savoonga Clinic: 907-984-3311	Bessie A Kaningok Health Clinic: 907-985-5012	Savoonga Clinic: 907-984-3311
Natural Resources Considerations				
Fish & Wildlife	High density seabird & shorebird nesting, Shorebird migration area, Waterfowl concentrations, Walrus haulout	High density seabird nesting, waterfowl concentrations, walrus haulout	High density seabird & shorebird nesting, Shorebird migration area, Waterfowl concentrations, spotted seals haulout, Polar bears	High density seabird & shorebird nesting, Shorebird migration area, Waterfowl concentrations, spotted seals haulout, Walrus haulout
Threatened & Endangered Species	Walrus (candidate species), Spectacled & Steller's Eiders (threatened)	Spectacled & Steller's Eiders (threatened)	Spectacled & Steller's Eiders (threatened), Polar bears (candidate)	Walrus (candidate species), Spectacled & Steller's Eiders (threatened), Polar bears (threatened)
Sensitive Areas	Not Designated		Spectacled eider critical habitat-winter, Barrier islands designated polar bear critical habitat	
Other Stakeholder Considerations				
Fisheries	Groundfish, Crab			
Historic Properties	Historic Properties are present throughout the area.			
Subsistence	High level of subsistence activities			
Tourism/Recreation	Local recreation			
Waterfront Public Facilities/Parks	None			
Waterfront Private Facilities	None			
Response and Salvage Resource Consideration				
Ability to Boom Vessel	No			
Geographic Response Strategies	Developing (2011)			
Closest Alternative Place of Refuge for same sized vessel	25 to DII-01-02	25 to DII-01-01	60 to DII-01-04	60 to DII-01-03

Site ID Number & Vessel Size Classification

DII = Deep Draft Vessels lengths up to 1000 feet, 40-60 feet of draft, greater than 10,000 GT

DI = Deep Draft Vessels lengths up to 1000 feet, 20-40 feet of draft, greater than 10,000 GT

L= Light Draft Vessel up to 450 feet in length, draft up to 20 feet

S = A shallow draft vessel less than 300 Gross Tons, has a draft less than 15 ft., LOA less than 200 ft

NOTE: Sensitive resource information can be found on other maps which can be accessed through the sensitive area section of the Northwest Arctic Subarea Contingency Plan: http://dec.alaska.gov/spar/perp/plans/scp_nwa.htm

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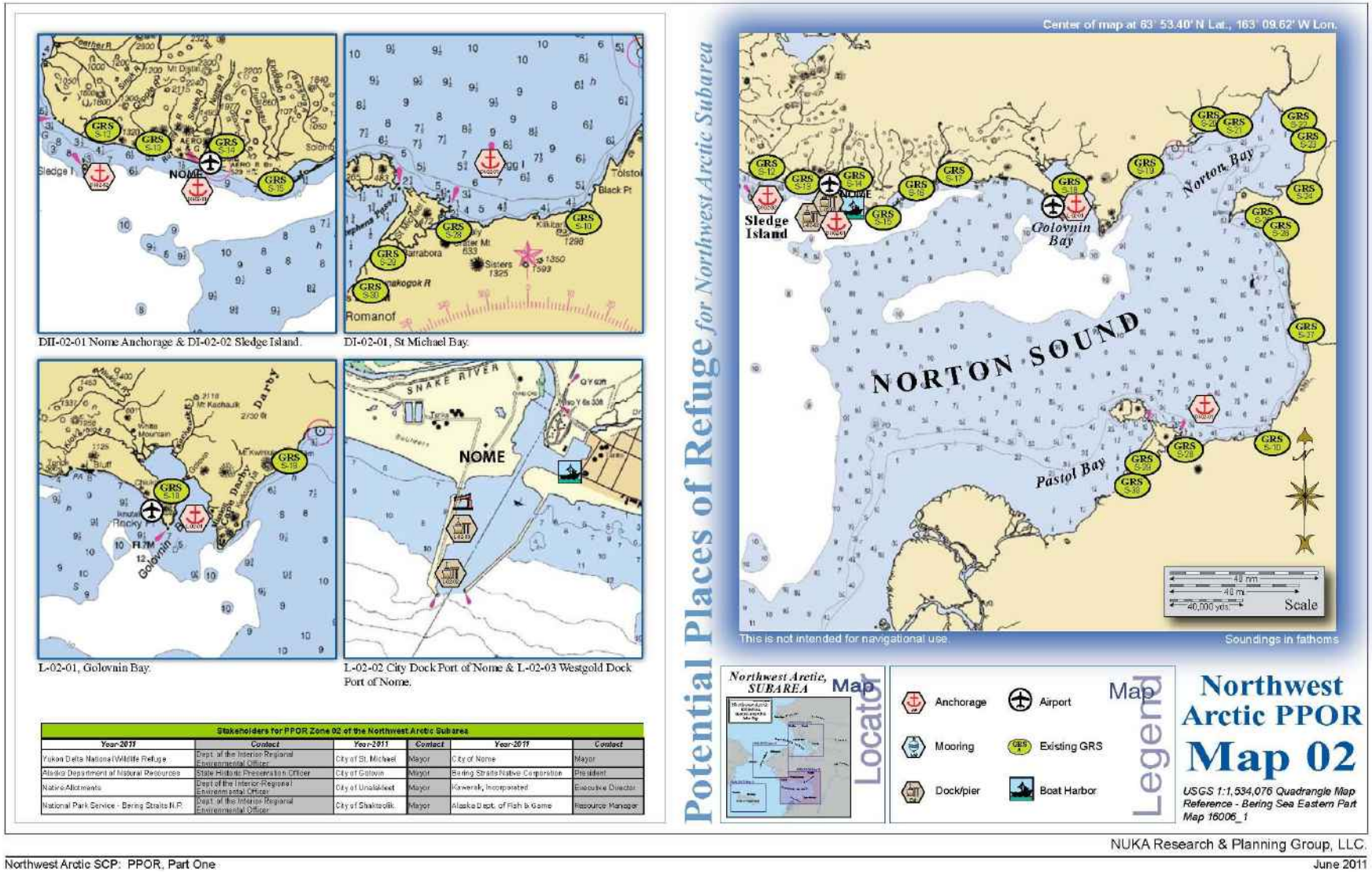

Northwest Arctic SCP: PPOR, Part One

Site Information for *Northwest Arctic PPOR Map 02*

Physical and Operational Characteristics for PPOR Map 02 of the Northwest Arctic Subarea-Norton Sound

	Nome Anchorage	St. Michael Bay	Sledge Island	Golovnin Bay	City Dock-Port of Nome	Westgold Dock-Port of Nome
ID Number	**DII-02-01**	**DI-02-01**	**DI-02-02**	**L-02-01**	**L-02-02**	**L-02-03**
Location *(In the general area)*	64º26.48'N 165º27.10'W	63º30.73'N 161º49.71'W	64º31.94'N 166º11.30'W	64º32.99'N 163º06.96'W	64º29.65'N 165º26.33'W	64º29.76'N 165º26.24'W
Maximum Vessel Size	Deep Draft Vessels - lengths to 1000 ft. or greater, 40-60 ft. of draft, greater than 10,000 GT	Deep Draft Vessels - lengths to 1000 ft., 20-40 ft. of draft, greater than 10,000 GT		Light Draft Vessels - up to 450 ft. in length, up to 20 ft. draft		
Type of Berthing	Anchorage			Dock		
Contact	N/A			City of Golovin: 907-779-3211	City of Nome / Port Operations: 907-443-6663	
Navigational Approach	Approach from E	Approach from N, NW	Approach from N, S, W	Approach from SE	Approach from S, W	Approach from S, W
Minimum Water Depths *(MLLW)*	10 Fathoms	5 Fathoms	3 Fathoms	4 Fathoms (2 - approach)	22.5 ft.	
Maximum Vessel Draft	60 ft.	40 ft.		20 ft.		
Swing Room or Dock Face *(w/ dolphins)*	3.5 nm to shoal	3 nm to shoal	0.75 nm to sea mount	2,100	200	190
Bottom Type	Sand, Mud, Gravel	Hard	Rocky	Hard, Sticky	Mud	Mud
Nearest Alternative Dock/Piers	3.8 nm to L-02-02	70 nm to L-02-01	20 nm to L-02-02	76 nm to L-02-02	0 nm to L-02-03	0 nm to L-02-02
Nearest Alternative Anchorage	20 nm to DI-02-02	110 nm to DII-02-01	20 nm to DII-02-01	110 nm to DI-02-01	3.8 nm to DII-02-01	3.8 nm to DII-02-01
Prevailing Winds	Average monthly wind speed 10 knots	Norton Sound prevailing summer winds from the S with variable force.				
Currents	1 knot E on flood / NW on ebb	0.8 knots SE on flood / N on ebb	No data noted	0.5 knots N on flood / S on ebb	1 knot E on flood / NW on ebb	1 knot E on flood / NW on ebb
Tides	Mean High 4.94 ft. (Higher 5.12) Mean Low 3.89 (Lower 3.59)	Diurnal, range of 3.9 ft.	Tide rips in the passage and on E side in heavy weather.	Diurnal, range 1.8 ft. influenced by prevailing winds	Mean High 4.94 ft. (Higher 5.12) Mean Low 3.89 (Lower 3.59)	Mean High 4.94 ft. (Higher 5.12) Mean Low 3.89 (Lower 3.59)
Sea Conditions	Exposed to building sea conditions with storms from the south.	Exposed to building sea conditions with storms from the north.	The island may be safely approached from any direction except the E where a depth of 3 fathoms is 0.9 mile E of the light.	Exposed to building sea conditions with storms from the southeast.	A bar shifts its position outside the entrance, the bar is reported to be no problem for small craft. The general anchorage for deep-draft vessels is in 7 to 8 fathoms about 1 mile from the beach abreast of Nome. Vessels of less draft anchor in about 6 fathoms a little closer to the beach. In strong S winds vessels should anchor farther offshore.	
Shelter from Severe Storms	Sheltered from N winds / Exposed to E, W	Exposed to winds from NW, N, E	Weather Dependent	Sheltered from N, S, E, W	Sheltered from storms	Sheltered from storms
Fog	Generally Norton Sound is fog free	Fogs are rare except in the spring with close ice floes and W winds.	Generally Norton Sound is fog free			
Ice	Early December to early June					

Site Considerations for PPOR Zone 02 of the Northwest Arctic Subarea-Norton Sound Area

	Nome Anchorage	St. Michael Bay	Sledge Island	Golovnin Bay	City Dock-Port of Nome	Westgold Dock-Port of Nome
ID Number	**DII-02-01**	**DI-02-01**	**DI-02-02**	**L-02-01**	**L-02-02**	**L-02-03**
Human Health & Safety						
Community-distance to (nm)	Nome - 3 nm/ pop. 3598	St. Michael - 6 nm/ pop. 401	Nome - 20 nm/ pop. 3598	Golovin - 1 nm/ pop. 156	Nome - .75 nm/ pop. 3598	Nome - .75 nm/ pop. 3598
Health Care Facilities	Norton Sound Regional Hospital: 907-443-3311 / Nome Health Center: 907-433-3221	Katherine Kobuk Memorial Clinic: 907-923-3311	Norton Sound Regional Hospital: 907-443-3311 / Nome Health Center: 907-433-3221	Irene L Aukongak Health Clinic: 907-443-3311	Norton Sound Regional Hospital: 907-443-3311 / Nome Health Center: 907-433-3221	
Natural Resources Considerations						
Fish & Wildlife	Waterfowl migration area	High density seabird nesting, Waterfowl concentrations, Polar bears, Salmon spawning	High density seabird nesting, Waterfowl migration area, Polar bears	High density waterfowl & shorebirds, Polar bears, Salmon spawning	Waterfowl migration area, Salmon spawning	
Threatened & Endangered Species	Spectacled & Steller's eiders (threatened)	Spectacled eiders & Polar bears (threatened)			Spectacled & Steller's eiders (threatened)	
Sensitive Areas	Not Designated - treatened or endangered species present	Spectacled eider & Polar bear critical habitat	Spectacled eiders critical habitat	Spectacled eider & Polar bear critical habitat	Not Designated - treatened or endangered species present	
Other Stakeholder Considerations						
Fisheries	Groundfish, Crab, Salmon, Herring					
Historic Properties	Historic properties are present throughout the area.					
Subsistence	High-level subsistence activities		Low-level subsistence activities	High-level subsistence activities		
Tourism/Recreation	Local recreation		None	Local recreation		
Waterfront Public Facilities/Parks	Port facilities in Nome Harbor	None			Port facilities in Nome Harbor	
Waterfront Private Facilities	None					
Response and Salvage Resource Consideration						
Ability to Boom Vessel	No	Weather dependent	No	Weather depenent	Yes	
Geographic Response Strategies	S-13, S-14, S-15	S-28, S-29	S-12	S-18	S-14	
Closest Alternative Place of Refuge for same sized vessel	20 nm to DI-02-02	110 nm to DII-02-01	20 nm to DII-02-01	110 nm to DI-02-01	3.8 nm to DII-02-01	3.8 nm to DII-02-01

Site ID Number & Vessel Size Classification

DII = Deep Draft Vessels lengths up to 1000 feet, 40-60 feet of draft, greater than 10,000 GT

DI = Deep Draft Vessels lengths up to 1000 feet, 20-40 feet of draft, greater than 10,000 GT

L= Light Draft Vessel up to 450 feet in length, draft up to 20 feet

S = A shallow draft vessel less than 300 Gross Tons, has a draft less than 15 ft., LOA less than 200 ft

NOTE: Sensitive resource information can be found on other maps which can be accessed through the sensitive area section of the Northwest Arctic Subarea Contingency Plan: http://dec.alaska.gov/spar/perp/plans/scp_nwa.htm

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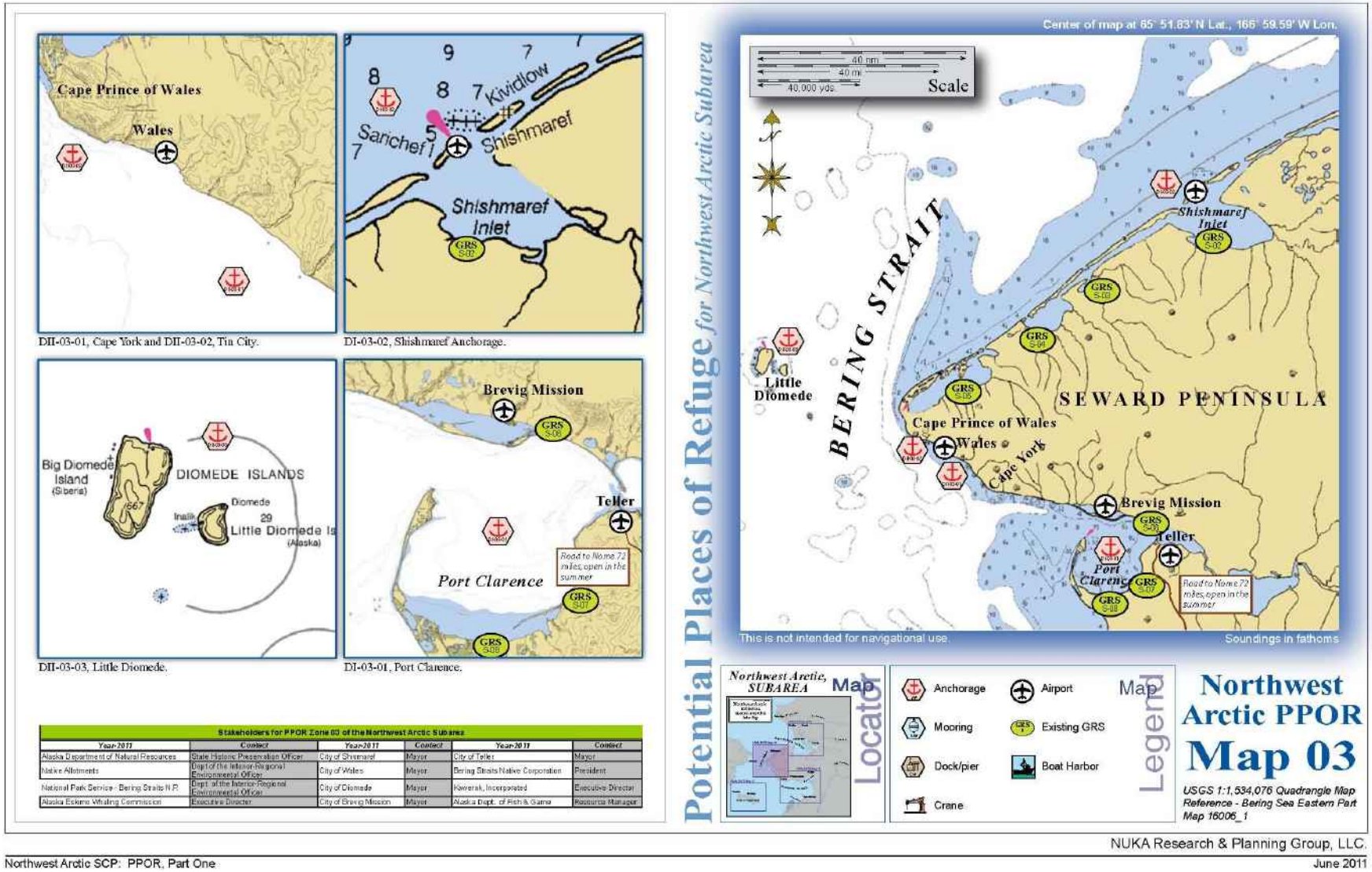
Cape Prince of Wales
Wales
DII-03-01, Cape York and DII-03-02, Tin City.
Kividlow
Shishmaref
Sarichef
Shishmaref Inlet
GRS S-02
DI-03-02, Shishmaref Anchorage.
Big Diomede Island (Siberia)
DIOMEDE ISLANDS
Diomede
Little Diomede Is (Alaska)
DII-03-03, Little Diomede.
Brevig Mission
GRS S-06
Teller
Port Clarence
Road to Nome 72 miles, open in the summer
GRS S-07
GRS S-08
DI-03-01, Port Clarence.
Stakeholders for PPOR Zone 03 of the Northwest Arctic Subarea
Year 2011
Contact
Year 2011
Contact
Year 2011
Contact
Alaska Department of Natural Resources
State Historic Preservation Officer
City of Shishmaref
Mayor
City of Teller
Mayor
Native Allotments
Dept of the Interior-Regional Environmental Officer
City of Wales
Mayor
Bering Straits Native Corporation
President
National Park Service - Bering Straits N.P.
Dept. of the Interior-Regional Environmental Officer
City of Diomede
Mayor
Kawerak, Incorporated
Executive Director
Alaska Eskimo Whaling Commission
Executive Director
City of Brevig Mission
Mayor
Alaska Dept. of Fish & Game
Resource Manager
Potential Places of Refuge for Northwest Arctic Subarea
Center of map at 65° 51.83' N Lat., 166° 59.59' W Lon.
40 nm
40 mi
40,000 yds.
Scale
BERING STRAIT
Little Diomede
SEWARD PENINSULA
Cape Prince of Wales
Wales
Cape York
Shishmaref Inlet
GRS S-02
GRS S-03
GRS S-04
GRS S-05
Brevig Mission
GRS S-06
Teller
Port Clarence
GRS S-07
GRS S-08
Road to Nome 72 miles, open in the summer
This is not intended for navigational use.
Soundings in fathoms
Northwest Arctic, SUBAREA
Map Locator
Anchorage
Airport
Mooring
Existing GRS
Dock/pier
Boat Harbor
Crane
Map Legend
Northwest Arctic PPOR
Map 03
USGS 1:1,534,076 Quadrangle Map Reference - Bering Sea Eastern Part Map 16006_1
NUKA Research & Planning Group, LLC.
June 2011
Northwest Arctic SCP: PPOR, Part One

Site Information for *Northwest Arctic PPOR Map 03*

Physical and Operational Characteristics for PPOR Map 03 of the Northwest Arctic Subarea-Seward Peninsula					
	Cape York	Tin City	Little Diomede	Port Clarence	Shishmaref Anchorage
ID Number	DII-03-01	DII-03-02	DII-03-03	DI-03-01	DI-03-02
Location *(In the general area)*	65°29.10'N 167°43.27'W	65°32.59'N 167°57.86'W	65°47.41'N 168°54.11'W	65°47.41'N 168°54.11'W	66°14.62'N 166°40.28'W
Maximum Vessel Size	Deep Draft Vessels - lengths to 1000 ft. or greater, 40-60 ft. of draft, greater than 10,000 GT			Deep Draft Vessels - lengths to 1000 ft., 20-40 ft. of draft, greater than 10,000 GT	
Type of Berthing	Anchorage				
Contact	N/A				
Navigational Approach	Approach from W, SW, S	Approach from W, SW, S	Approach from N, NE, E	Approach from W	Approach from W, NW, N
Minimum Water Depths *(MLLW)*	12 Fathoms	14 Fathoms	20 Fathoms	6 Fathoms	6 Fathoms
Maximum Vessel Draft	60 ft.			40 ft.	
Swing Room or Dock Face *(w/ dolphins)*	1.5 nm to shoal	1.2 nm to shoal	1 nm to shore	4 nm to shore	4 nm to shoal
Bottom Type	Mud, Gravel, Rocky	Sand	Rocky	Rocky	Muddy Sand
Nearest Alternative Dock/Piers	75 nm to L-02-02	100 nm to L-02-02	123 nm to L-02-02	95 nm to L-02-02	95 nm to LI-04-01
Nearest Alternative Anchorage	7.5 nm to DII-03-02	7.5 nm to DII-03-01	27 nm to DII-03-02	28 nm to DII-03-02	70 nm to DII-03-03
Prevailing Winds	Summer SW, W / Winter E				
Currents	W 1 to 2 knots	1.0+ knots	General ocean current runs south to north, local currents vary.	Seldom exceeds 0.5 knots in entrance	No data noted
Tides	Mean High 4.49 ft. (Higher 4.50) Mean Low 3.84 (Lower 3.89)			Mean High 11.16 ft. (Higher 11.28) Mean Low 10.36 (Lower 10.10)	Mean High 4.44 ft. (Higher 4.60) Mean Low 3.67 (Lower 3.57)
Sea Conditions	The area from Cape York to Port Clarence has been surveyed with no depth less than 6 fathoms being found 1.5 miles from the shore. The general depths fall off to a submarine valley about 2 miles offshore, extending E, with depths of not less than 10 fathoms, to within 6 miles of the entrance to Port Clarence. A rock is reported about 0.8 mile from the shore SE of York village.	The bight off Tin City affords N weather anchorage in depths of 10 fathoms a mile from a sand beach which is steep enough for good landing	Vessels approaching Little Diomede Island from the S and E may run close along the S shore, keeping in depths greater than 14 fathoms until the village is sighted, and anchor S of the sandspit. Approach from E also has been made along N shore at distances decreasing from 1 mile to 0.4 mile and anchorage in depths of 17 fathoms 0.7 mile N of the spit.	In a S approach to Port Clarence in fog or mist, the low sand and shingle spit forming the W side is not visible until close-to. The best procedure is to make landfall on King Island from the E in depths greater than 10 fathoms (foul ground N of Cape Rodney). Then set course just E of Cape York to 3 miles of coast, change to 096 degrees for the entrance to Port Clarence.	The navigable channel into Shishmaref Inlet rounds the NE end of Sarichef Island; a dangerous bar extends 0.5 mile from the point on the N side of the channel. Vessels drawing as much as 7 feet may be beached on the channel side of the sandy NE end of Sarichef Island; drafts of 3 feet may be taken to within 100 yards of the inner beach SW of Shishmaref, and native skiffs have followed unmarked channels completely around the island.
Shelter from Severe Storms	Sheltered from N winds / Exposed to SE, W	Sheltered from N winds / Exposed to SE, W	Weather Dependent	Sheltered from N, S, E, W	Sheltered from S, W winds / Exposed to N, E
Fog	Frequent throughout the year. Heaviest from June-July.			Surface fog after spring break up, increasing in prevalence as season advances	Frequent throughout the year. Heaviest from June-July.
Ice	December to June				Mid-November to Mid-June

Site Considerations for PPOR Zone 03 of the Northwest Arctic Subarea-Seward Peninsula					
	Cape York	Tin City	Little Diomede	Port Clarence	Shishmaref Anchorage
ID Number	DII-03-01	DII-03-02	DII-03-03	DI-03-01	DI-03-02
Human Health & Safety					
Community-distance to (nm)	Wales - 14 nm/ pop. 145 Brevig Mission - 32 nm/ pop. 388	Wales - 6 nm/ pop. 145 Brevig Mission 39 nm/ pop. 388	Shishmaref 75 nm/ pop. 563 Wales - 22 nm/ pop. 145	Brevig Mission - 8 nm/ pop. 388	Shishmaref 6 nm/ pop. 563
Health Care Facilities	Toby Anungazuk, Sr. Memorial Health Clinic: 907-443-3311 / Brevig Mission Clinic: 907-642-4311 / Katherine Miksruaq Olanna Health Clinic: 907-649-3311			Brevig Mission Clinic: 907-642-4311	Katherine Miksruaq Olanna Health Clinic: 907-649-3311
Natural Resources Considerations					
Fish & Wildlife	Waterfowl concentrations		High density waterfowl & seabird migration & nesting, Polar bears, Walrus	High density waterfowl & seabird migration & nesting, Polar bear	High density waterfowl & shorebird migration & nesting, Polar bears, Salmon spawning
Threatened & Endangered Species	Spectacled eider (threatened)		Polar Bears (threatened), Walrus (candidate)	Spectacled Eiders & Polar bears (threatened)	
Sensitive Areas	Spectacled eider critical habitat		Polar bear critical habitat	Spectacled eider & Polar bear critical habitat, extensive eelgrass beds	
Other Stakeholder Considerations					
Fisheries	Herring, Crab, Salmon		None	Herring, Salmon, Crab	None
Historic Properties	Historic properties are present throughout the area.				
Subsistence	High-level local subsistence				
Tourism/Recreation	Local recreation				
Waterfront Public Facilities/Parks	None				
Waterfront Private Facilities	None				
Response and Salvage Resource Consideration					
Ability to Boom Vessel	Weather dependent		No	Weather dependent	No
Geographic Response Strategies	None (2011)			S-6, S-7, S-8, S-9	S-02
Closest Alternative Place of Refuge for same sized vessel	7.5 nm to DII-03-02	7.5 nm to DII-03-01	27 nm to DII-03-02	28 nm to DII-03-02	70 nm to DII-03-03

Site ID Number & Vessel Size Classification

DII = Deep Draft Vessels lengths up to 1000 feet, 40-60 feet of draft, greater than 10,000 GT

DI = Deep Draft Vessels lengths up to 1000 feet, 20-40 feet of draft, greater than 10,000 GT

L= Light Draft Vessel up to 450 feet in length, draft up to 20 feet

S = A shallow draft vessel less than 300 Gross Tons, has a draft less than 15 ft., LOA less than 200 ft

NOTE: Sensitive resource information can be found on other maps which can be accessed through the sensitive area section of the Northwest Arctic Subarea Contingency Plan: http://dec.alaska.gov/spar/perp/plans/scp_nwa.htm

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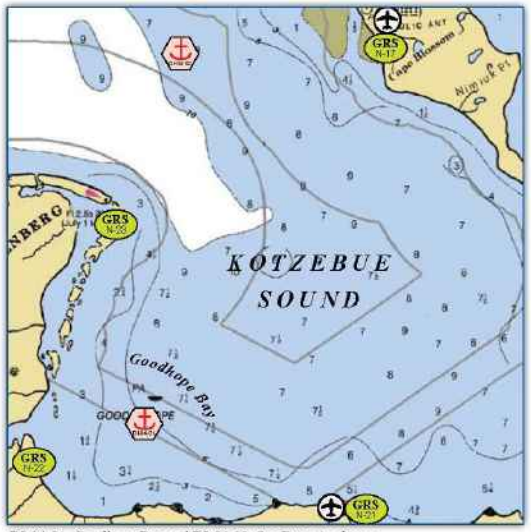

DI-04-01, Goodhope Bay and DI-04-02, Sea Buoy Anchorage.

L-04-01, DeLong Mountain Transportation System – Red Dog Mine.

Stakeholders for PPOR Zone 04 of the Northwest Arctic Subarea			
Year-2011	*Contact*	*Year-2011*	*Contact*
Alaska Department of Natural Resources	State Historic Preservation Officer	Northwest Arctic Borough	Mayor
Native Allotments	Dept. of the Interior-Regional Environmental Officer	NANA Regional Corporation	President / CEO
National Park Service - Cape Krusenstern N. M.	Dept. of the Interior-Regional Environmental Officer	City of Kotzebue	Mayor
National Park Service - Bering Straits N.P.	Dept. of the Interior-Regional Environmental Officer	City of Kivalina	Mayor
Selawik National Wildlife Refuge	Dept. of the Interior-Regional Environmental Officer	City of Deering	Mayor
Alaska Dept. of Fish & Game	Resource Manager	Alaska Eskimo Whaling Commission	Executive Director

Potential Places of Refuge *for Northwest Arctic Subarea*

Northwest Arctic PPOR

Map 04

USGS 1:1,587,870 Quadrangle Map Reference - Arctic Coast - Map 16003_1

NUKA Research & Planning Group, LLC.

June 2011

Site Information for *Northwest Arctic PPOR Map 04*

Physical and Operational Characteristics for PPOR Map 04 of the Northwest Arctic Subarea-Kotzebue Sound			
	Goodhope Bay	Sea Buoy Anchorage	Delong Mnt. Tranpotation System Port Facilities-Red Dog Mine
ID Number	**DI-04-01**	**DI-04-02**	**L-04-01**
Location *(In the general area)*	66°13.12'N 168°54.11'W	66°48.08'N 163°14.90'W	67°36.17'N 164°04.06'W
Maximum Vessel Size	Deep Draft Vessels - lengths to 1000 ft., 20-40 ft. of draft, greater than 10,000 GT		Light Draft Vessels - up to 450 ft. in length, up to 20 ft. draft
Type of Berthing	Anchorage		Dock
Contact	N/A		Red Dog Mine Port Facilities
Navigational Approach	Approach from the N, NE	Approach from E	Approach from E
Minimum Water Depths *(MLLW)*	6 Fathoms	8 Fathoms	15 ft.
Maximum Vessel Draft	40 ft.		15 ft.
Swing Room or Dock Face *(w/ dolphins)*	3.75 nm to shoal	3.75 nm to shoal	350 ft.
Bottom Type	Mud	Mud	Gravelly Muddy Sand
Nearest Alternative Dock/Piers	80 nm to L-04-01	60 nm to L-04-01	280 nm to L-02-02
Nearest Alternative Anchorage	36 nm to DI-04-02	36 nm to DI-04-02	60 nm to DI-04-02
Prevailing Winds	Wind predominantly from the W during ice free season		
Currents	No data noted	05. knots SE on flood / NW on ebb	General ocean current flows from SW down the coast, local currents may vary.
Tides	Mean High 3.79 ft. (Higher 3.90) Mean Low 3.22 (Lower 3.12)		Mean High 6.02 ft. (Higher 6.11) Mean Low 5.35 (Lower 5.22)
Sea Conditions	Exposed to N, E	Exposed to W	Exposed to S, W
Shelter from Severe Storms	Sheltered from severe storms	No shelter	
Fog	Fog during ice free season		
Ice	Late October through Late May		

Site ID Number & Vessel Size Classification
DII = Deep Draft Vessels lengths up to 1000 feet, 40-60 feet of draft, greater than 10,000 GT
DI = Deep Draft Vessels lengths up to 1000 feet, 20-40 feet of draft, greater than 10,000 GT
L= Light Draft Vessel up to 450 feet in length, draft up to 20 feet
S = A shallow draft vessel less than 300 Gross Tons, has a draft less than 15 ft., LOA less than 200 ft

Site Considerations for PPOR Zone 04 of the Northwest Arctic Subarea-Kotzebue Sound			
	Goodhope Bay	Sea Buoy Anchorage	Delong Mnt. Tranpotation System Port Facilities-Red Dog Mine
ID Number	**DI-04-01**	**DI-04-02**	**L-04-01**
Human Health & Safety			
Community-distance to (nm)	Kotzebue 46 nm/ pop. 3201	Kotzebue - 17 nm/ pop. 3201	Red Dog - 3 nm/ pop. ? (private)
Health Care Facilities	Manilaq Medical Health Center and Kotzebue PHN: 907-402-3321		Bessie A Kaningok Health Clinic: 907-985-5012 / Red Dog Mine Clinic (private)
Natural Resources Considerations			
Fish & Wildlife	High density seabird & shorebird nesting, Shorebird migration area, Waterfowl concentrations, Polar bear, Salmon & Herring spawning, spotted seal haulout, ringed seal breeding/pupping, beluga whales		High density waterfowl & shorebird migration area, Waterfowl concentrations, Polar bear, Seals
Threatened & Endangered Species	Spectacled eiders (threatened), Polar bears (threatened)		
Sensitive Areas	Barrier islands designated polar bear critical habitat	Polar bear critical habitat	
Other Stakeholder Considerations			
Fisheries	None	Salmon (historic)	None
Historic Properties	Historic properties are present throughout the area.		
Subsistence	High-level local subsistence		
Tourism/Recreation	Local recreation		
Waterfront Public Facilities/Parks	None	Barge landing factilities	Limited facilities
Waterfront Private Facilities	None		
Response and Salvage Resource Consideration			
Ability to Boom Vessel	Weather dependent		
Geographic Response Strategies	N-22	None (2011)	N-5, N-6
Closest Alternative Place of Refuge for same sized vessel	36 nm to DI-04-02	36 nm to DI-04-02	60 nm to DI-04-02

NOTE: Sensitive resource information can be found on other maps which can be accessed through the sensitive area section of the Northwest Arctic Subarea Contingency Plan: http://dec.alaska.gov/spar/perp/plans/scp_nwa.htm

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POTENTIAL PLACES OF REFUGE: PART THREE – REFERENCES

Alaska Regional Response Team. October 2004. Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases, Annex O, Guidelines for Places of Refuge Decision-Making.

Dept of Commerce - National Oceanic & Atmospheric Administration (NOAA), National Ocean Survey can provide detailed hydrographic charts of PPOR locations upon request. Contact Dave Neander, Dave.Neander@noaa.gov, (206) 526-6949, NOAA/ORR, 7600 Sand Point Way, NE, Seattle, WA 98115.

Useful Websites

The "Guidelines for Places of Refuge Decision-Making" Annex O of the Unified Plan
http://www.dec.state.ak.us/spar/perp/plans/uc.htm

Alaska Dept. of Environmental Conservation, Northwest Arctic GRS Information
http://www.dec.state.ak.us/spar/perp/grs/nwa/home.htm

Alaska Dept. of Environmental Conservation, Northwest Arctic Subarea Contingency Plan.
http://www.dec.state.ak.us/spar/perp/plans/scp_nw.htm

Alaska Dept. of Natural Resources. Northwest Arctic Public Access Atlas.
http://www.dnr.state.ak.us/mlw/planning/easmtatlas/

Alaska Dept. of Natural Resources, Northwest Arctic Subarea maps including, general maps, land use and management maps, biologically sensitive area maps, most environmentally sensitive area maps, environmentally sensitive index maps, and geographic response strategies.
http://www.asgdc.state.ak.us/maps/cplans/subareas.html#northwest

U.S Bureau of Land Management. Alaska Land Information System.
http://www.ak.blm.gov/alis/

Transport Canada-Marine Safety
http://www.tc.gc.ca/eng/marinesafety/menu.htm

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