CHUKCHI SEA COASTAL STUDIES: COASTAL GEOMORPHOLOGY, ENVIRONMENTAL SENSITIVITY, AND PERSISTENCE OF SPILLED OIL

PART III. COASTAL RESOURCE TABLES

Gordon A. Robilliard,[1] John R. Harper,[2] Jon Isaacs,[3] and Carl Foget[4]

[1] Present Address: ENTRIX INC., Concord, California
[2] Present Address: Dobrocky SEATECH, Sidney, British Columbia
[3] Present Address: Jon Isaacs and Assoc, Anchorage, Alaska
[4] Deceased

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1.0
INTRODUCTION

This part contains the 84 Chukchi Sea coastal resource tables that provide additional information on the coastal resource maps in Part II and provide support for the priority levels assigned for the Oil Residence Indices (ORI), Biological Sensitivity Indices (BSI), and Human Use Indices (HUI). These coastal resource tables contain an additional level of detail on the physical, biological, or human uses of each repetitive shore-zone unit of the coastal zone. This detail is beyond that appearingon the maps. It allows a comparatively simple and useable map format tobe retained while at the same time providing a high level of detail onshore-zone characteristics for planners and others requiring the detail.

2.1 GENERAL

This section describes how to use the tables and the contents of the tables. Following the table for Map 84 is a foldout which presents the Coastal Resource Table Legend. This legend briefly describes each of the major categories in the table. For additional information, the user is referred to Part I.

The tables only include the shore-zone resources; that is, those from the low water mark to the prominent storm surge line, typically about 2m above normal water level. The exception are the human uses and some of the biological resources in the major passes through the barrier islands and the human uses of the major lagoon systems. The physical, biological and human use characteristics of the nearshore and offshore open water areas were explicitly not included in this study (though they may be affected by an oil spill and be equally or more important than the shore-zone ones).

2.2 CROSS REFERENCE TO MAPS

Each table is identified in the upper right corner with a Map Number from 1 to 84 for immediate cross-reference between the maps and tables. In a few cases, there are 2 pages of information for a map; these are identified as "Page 1 of 2*' and "Page 2 of 2"'.

The information in the tables is related directly to the repetitive shore-zone units presented on the maps. The mapping method is described

in detail in Part I but is described briefly in the next section (2.3) to facilitate understanding of how the unit identifiers are obtained and how to use the maps and tables.

The unit identifiers on the Coastal Resource Maps (Part III) correspond to the unit identifiers listed in the left-hand column of the Coastal Resource Tables.

For consistency, the biological and human use resources are described within the physical unit(s) where the resource(s) appear. Where the biological or human use resource extends over 2 or more physical units, the description of the resource, activity, and season-use chart are simply repeated within each physical unit.

2.3 MAPPING METHOD

The mapping method defines a series of shoreline units that are physically homogeneous along a section of coast (Figure 2-1). These units or shore-zone types represent a set of shore-zone components that occur repeatedly in the same combination throughout the study area. The across-shore components are based on geomorphological and/or textural characteristics that are homogeneous both across-shore and alongshore. These physical shore-zone components are described in Table 2-1.

The map format identified the boundaries of units longer than 0.25km in two ways: (a) change in the distinctive graphic pattern used for each shore-zone type (Figure 2-2) and (b) lines perpendicular to the shoreline at each end of the unit (Figure 2-3).

Each shore-zone unit on a map is uniquely identified for that map with a capital letter. Units identified by a letter followed by a superscript "*prime" are located on the lagoon shoreline while letters without a ● *prime" are located on the open Chukchi Sea coast. Water bodies (e.g., lagoons, passes, bays, inlets) are identified by name. Where the same shore-zone type is present on both the lagoon and the

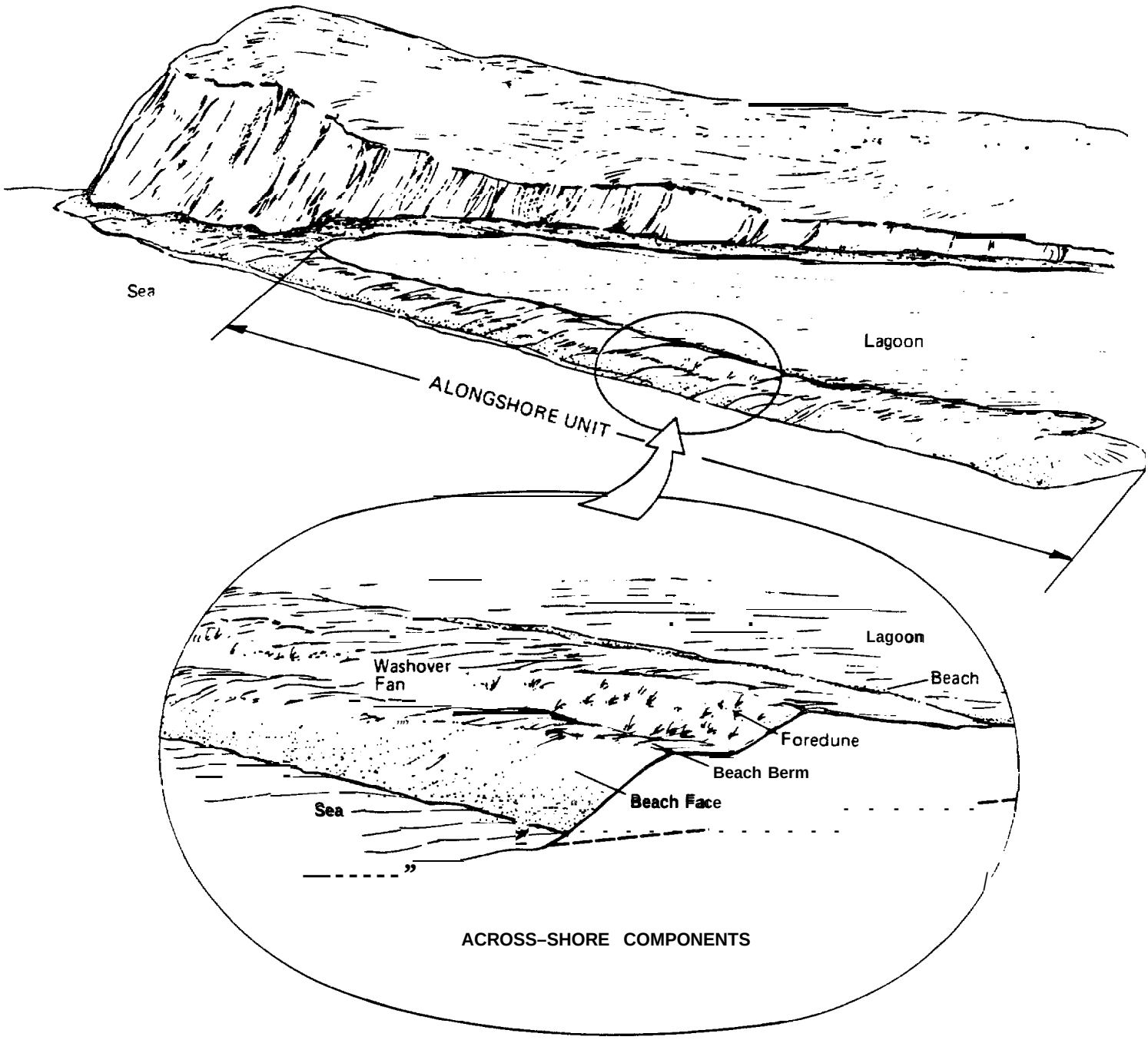

Figure 2-1. ILLUSTRATION OF THE MAPPING APPROACH

Table 2.1. EXPANDED LEGEND OF PHYSICAL SHORE-ZONE COMPONENTS

SHORE-ZONE COMPONENTS

Rock Cliffs - primary morphology is that of a steep cliff cut by waves into the bedrock substrate. Cliff slopes are typically steep (greater than 45°) and fringing beaches are rare. Pocket beaches of gravel sized material may occur in small indentations along the base of the cliffs. Bedrock types include sedimentary sandstones in the northern portion of the study area (Skull Cliff, Peard Bay, Kuk River) to meta sedimentary and igneous in the southern portion of the study area (Cape Sabine, Cape Lisburne, Cape Thompson).

High Tundra Cliffs - wave-cut cliffs formed in unconsolidated Quaternary sediments. Relief from cliff base to cliff edge is greater than 5 m (approximately 15 ft). Cliff sediments are bonded by permafrost and are usually "ice-poor'*, although massive ice beds do occur locally. Slopes are usually less than 45" and are dominated by surface wash and debris slide mass-wasting processes. Coastal retreat rates, where documented, are less than 1 m/yr. Fringing gravel beaches typically occur at the cliff base.

Low Tundra Cliffs - wave-cut cliffs formed in unconsolidated Quaternary sediments. Relief from cliff base to cliff edge is less than 5 m (approximately 15 ft). Cliff sediments are bonded by permafrost and are usually "ice rich.'* These cliffs aremost common in lagoons and near open-coast river mouths. Coastal retreat con be rapid (> 1m/yr) on some cliffs (usually steep slopes, >45°, indicate rapidly retreating cliffs), although most cliffs appeared retreating only slowly in comparison with those of the Beaufort Sea coast. Narrow fringing sand or gravel beaches are typically associated with these cliff types.

Mixed Sediment Beaches - the vast majority of beaches along the Chukchi Sea coast are comprised of a mixture of sand and gravel-sized sediment. Mixed–sediment beaches are widely distributed and are associated with both/barrier islands and tundra cliffs. Additional detail on size composition of sediment within the unit is provided in the resource tables. (Note: gravel includes sediment greater than 2 mm in diameter; sand includes sediments with diameters of 0.06 to 2.0 mm).

Sand Beaches - sand beaches occur at the distal ends of some barrier spits (the eastern Peard Bay spit, for example). Sand-sized material comprises more than 80 percent of the total sediment mass. Sand beaches may occur locally along the lagoon shores as well,

Table 2.1. EXPANDED LEGEND OF PHYSICAL SHORE-ZONE COMPONENTS (continued)

SHORE-ZONE COMPONENTS

Mud/Sand Flats - wide (>100 m or 300 ft) intertidal flats occur within the lagoon systems of the Chukchi Sea coast. These flats are typically associated with river deltas, flood-tidal deltas on the seaward side of the lagoon, with washover fans on the barrier islands and with other smaller scale coastal features along the mainland coast. Sediment texture on the flats usually grades from sand-sized material in the upper portion of the shore zone to mud-sized material in the lower shore-zone.

Wetlands - low elevation, generally flat areas with standing water for most of the snow or ice-free season. They are subject to occasional storm inundation but are generally not covered by the normal astronomical tides. Vegetation is salt-tolerant and dominated by the grass, *Puccinella* spp. Wetlands are low energy environments primarily on borders of small estuaries, deltas and the lagoon side of barrier islands.

Lagoons/Estuaries - protected embayments such as small lagoons or estuaries, which are too small to map separately, are delineated by a site symbol. Lagoons and estuaries typically encompass low-energy coastal features such as mudflats or wetlands, which can not be shown on the map due to the small scale of the feature. Lagoons and estuaries are necessarily connected to marine water areas by either a washover channel, or an inlet.

Inlets - inlet provide a critical water exchange link between protected lagoons, estuaries or bays. Inlet widths vary, although most are less than 1.5 km (approximately 0.25 mi) in width (with the exception of the Peard Bay inlets). Inlets which have been permanently open for the past few years are mapped as stable inlets. Inlets which are only open seasonally, such as during spring freshet or during storm-surges or which open and close on a year-to-year basis are mapped as ephemeral inlets.

SHORE-ZONE MODIFIERS

Washover Channels and Fans – washover fans and channels are activated during storm surges and provide an important water exchange conduit during storm surges. Water exchange is in only one direction, landward-directed (return flow occurs through inlets or through ground-water seepage. Washover channel and fans are found on low, usually unvegetated, barrier islands and on small baymouth bars enclosing lagoons and estuaries.

Table 2.1. EXPANDED LEGEND OF PHYSICAL SHORE-ZONE COMPONENTS (concluded)

SHORE-ZONE COMPONENTS

Barrier Island Vegetation – barrier island vegetation is mapped as a shore-zone modifier for open coast barrier islands where significant densities of vegetation occur. Vegetation on the Chukchi Sea side of the barrier islands is primarily dune grass (Elymus arenarius mollis). On the lagoon side, the vegetation is typically one for more species of grass, primarily Puccinella Spp. The presence of vegetation usually indicates a greater barrier island stability (i.e., stable or accretional) and less frequent over-topping during storm surges.

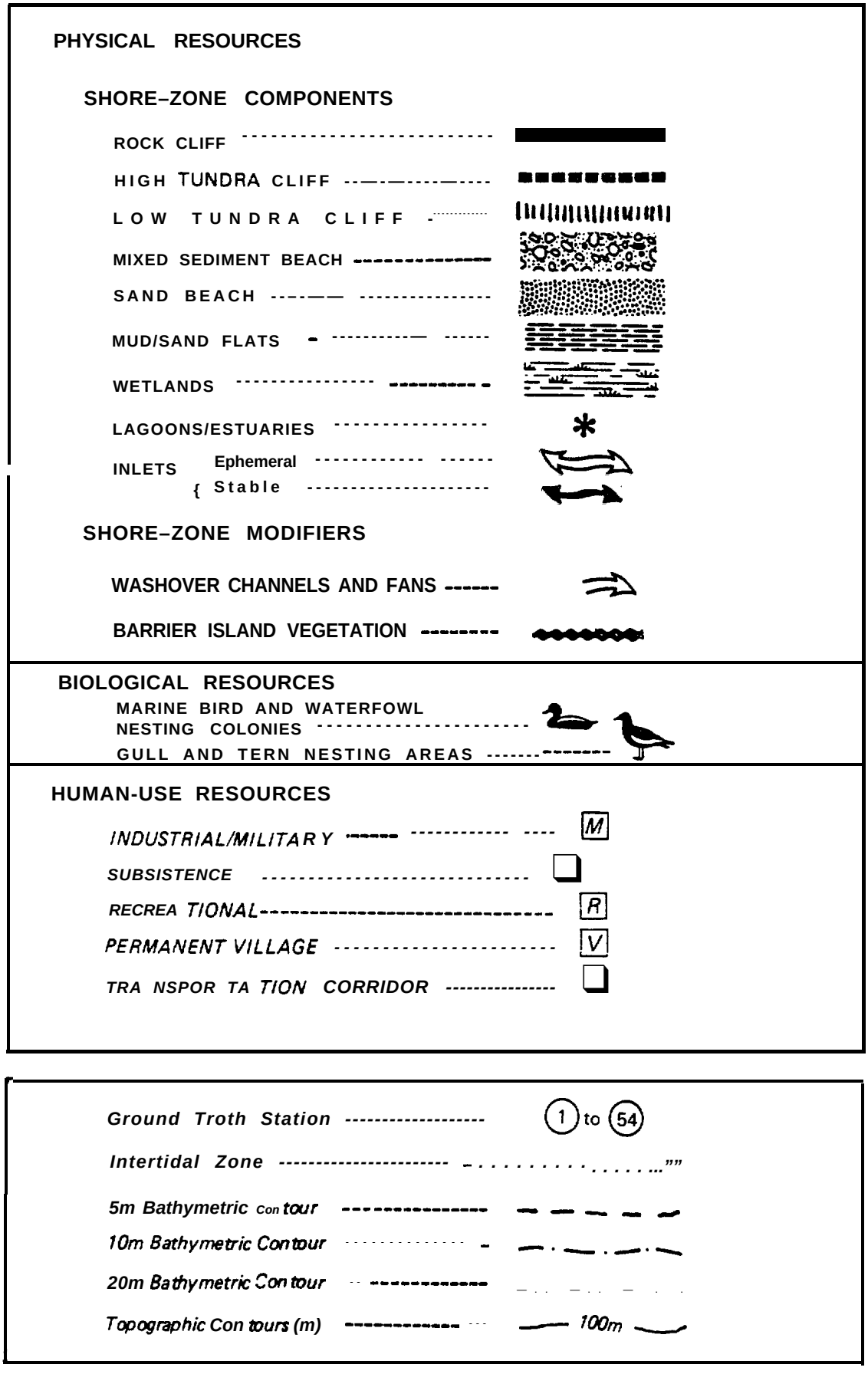

Figure 2-2. MAPPING PATTERNS USED FOR SHORE-ZONE COMPONENTS

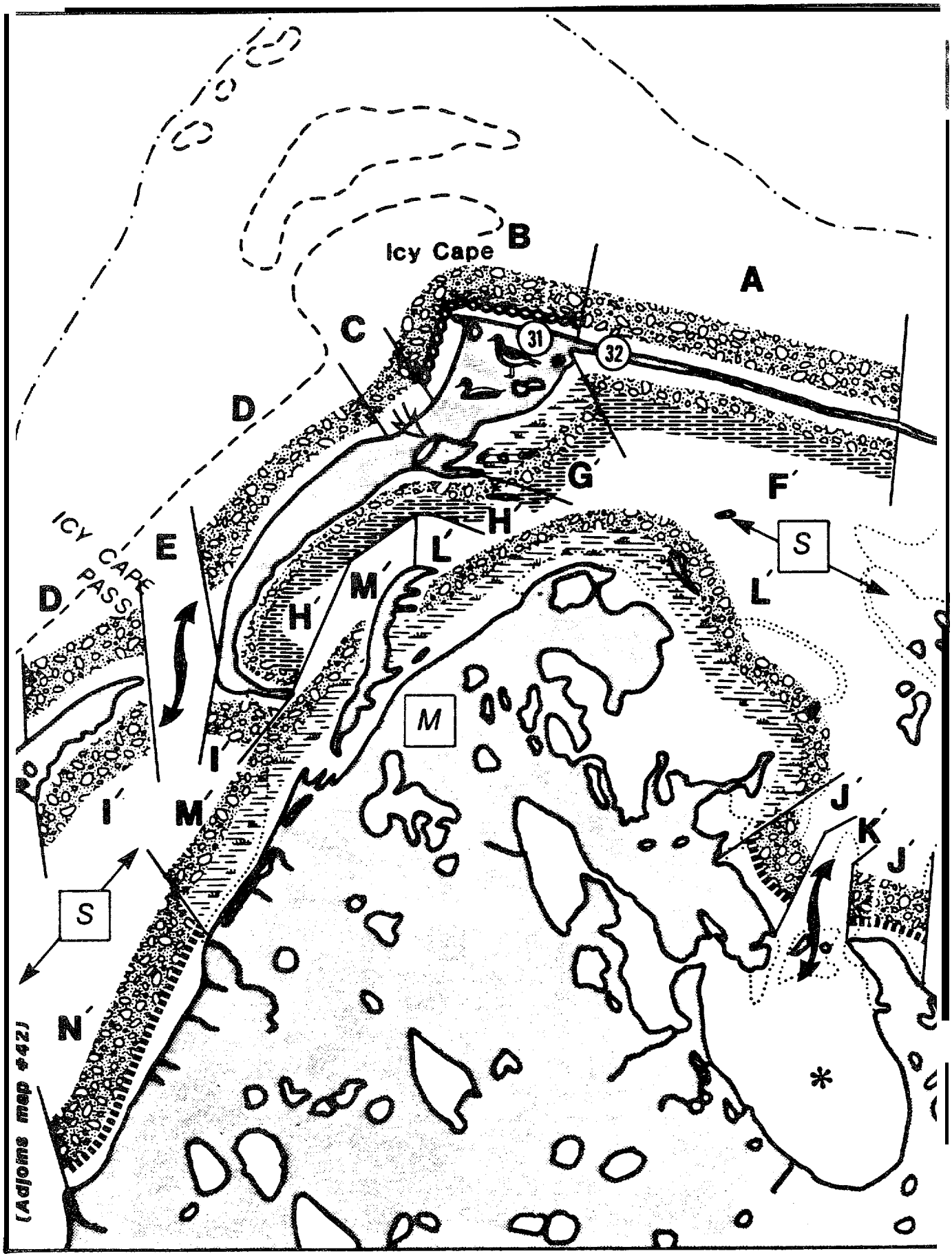

Figure 2-3. EXAMPLE OF COASTAL RESOURCE MAP FROM PART II

Chukchi Sea sides of a barrier island or spit, the shorezone is considered two separate units and each is given a unique unit identifier. The perpendicular line dividing them on the map is arbitrarily placed at the tip of the island or spit where maximum fetch and wave exposure changes.

The unit identifiers (i.e., the capital letters) are applied to the shore-zone unit in a generally north to south direction. Where there are exposed or open as well as lagoon coasts, the unit identifiers are applied: (a) first to the open coast side of the barrier island, (b) next to the lagoon side of the barrier island or spit, and (c) finally to the mainland shore. Only one unit will be identified with a letter (which may be further modified with a *'prime" sign) so ideally each letter would appear only once on each map. However, on some maps, it is nessary to label the unit several times reduce confusion. Figure 2.3 illustrates the unit identifier labeling scheme.

Note that the unit identifiers are simply that; they uniquely identify the unit(s) on each map and in the tables. There is no explicit or implied relationship or similarity between units on different maps labelled with the same unit identifier. For example, the unit labelled D on Map 39 (Figure 2-3) is a sandy gravel beach while unit D on Map 40 is a permanent inlet (Figure 2-4).

The location or boundaries for the biological and human use resources may not coincide with the physical shore-zone type boundaries. The wetlands, a biological resource, are also a physical shore-zone type and will have the same bounds. However, bird nesting areas or seabird colonies are typically much smaller than the physical unit. The human use resources which can be mapped as discrete sites, principally villages, military areas and archaeological sites, are typically less areally extensive than the adjacent shore-zone type with which they are associated. These resources are also typically above the storm surge line and thus out of the shore zone as defined in this study.

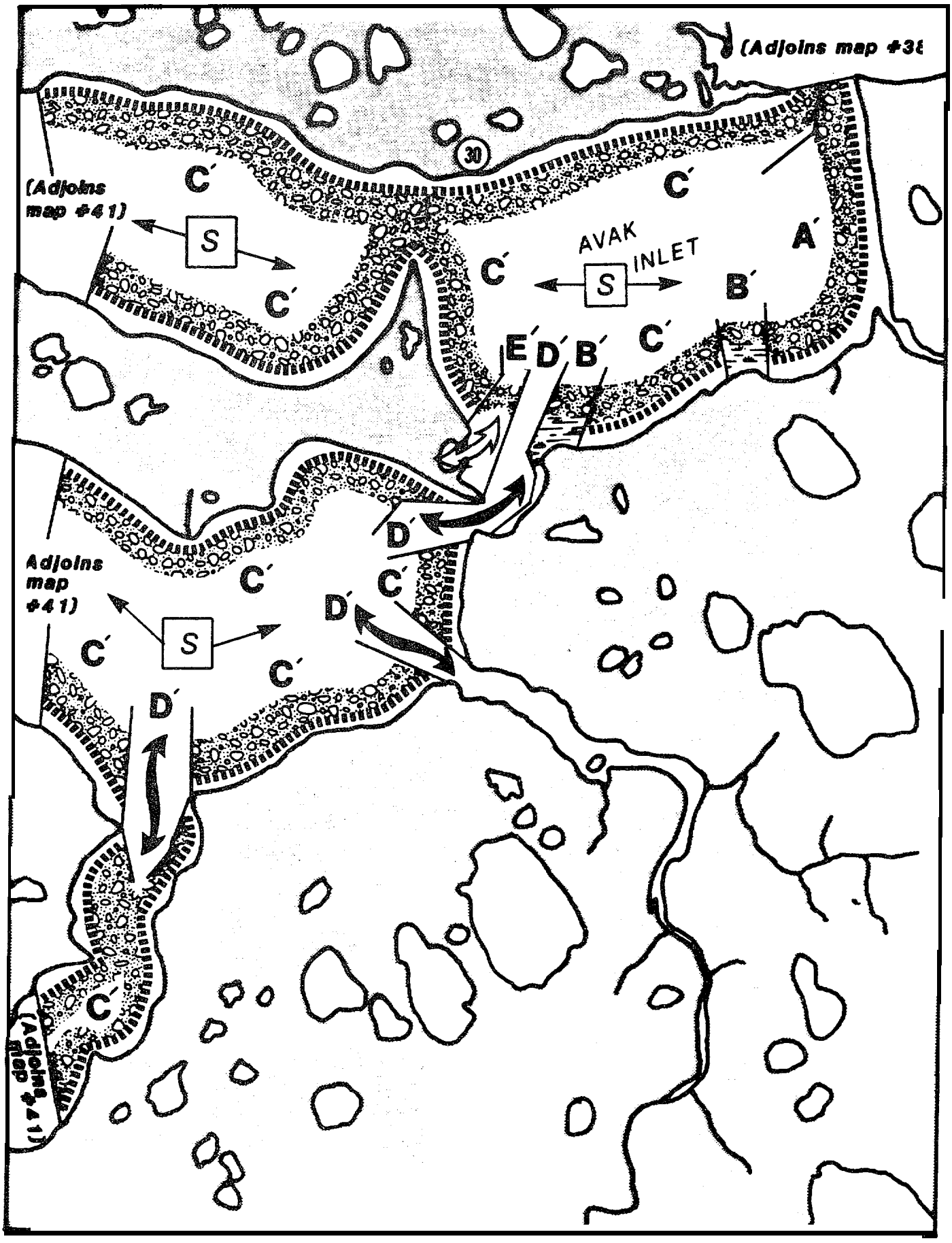

Figure 2-4. EXAMPLE OF COASTAL RESOURCE MAP FROM PART II

Transportation corridors as well as subsistence and recreational areas cannot be as precisely defined. They are shown on the Coastal Resource Maps (Part II) by arrows indicating their approximate extent which typically includes several physical shore-zone units, often over several consecutive maps.

CHUKCH I SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGI CAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (lull)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity		J	J	A	S	O
A	9.5	10–30	<100	Beach	Sandy gravel	Shorebirds	Staging, Migrat ion			●	●									
						Ross's gull	Staging					●	o							
						Oldsquaw	Staging, Molting			●	0	-								
						Common eider	Migration			o	●	o								
						King eider	Migration			o	●	o								
B'	8.0	I0-20	10	Beach	Sandy grave I	Shorebirds	Staging, Migration			●	*			Waterfowl	hunting	●	●	.	●	
						Ross's gull	Staging					●	o							
						Oldsquaw	Staging, Molting			●	O	9								
						Common eider	Migration			o	●	o								
						King eider	Migration			o	●	o								
E Ison	Lagoon	--	--	---	Open water area									Fishing				●	*	e

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES								HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	7.5	20-30	<100	Small estuary, lagoon	--	Shorebirds	Staging, Migration			●	*			Waterfowl hunting	●	●	●	●	
				Road	Gravel	Ross's gull	Staging					●	o	Subsistence access	●				
				Beach	Sandy gravel	Oldsquaw	Staging, kiting			●	●	●		Resident retreation	●	.	.	m	m
						Common eider	Migration			o	●	o							
						King eider	Migration			o	●	o							
B	0.8	20-30	<100	Small estuary, lagoon	--									Waterfowl hunting	●	m	m	.	
				Road	Gravel									Subsistence access	●	●	●	●	●
				Reach	Sandy gravel									Resident retreation	●	0	0	0	-
C	3.2	30-50	<100	Small estuary, lagoon	--									Subsistence access	●	●	●	●	●
				Road	Gravel									Resident recreation	●	●	●	●	●
				Beach	Sandy gravel														
D'	4.7	10-50	15	Salt-tolerant wetland	Peat	Wetland			●	●	●	●	●	Waterfowl hunting	●	●	●	●	
				Beach	Sandy gravel	Shorebirds	Staging			●	●			Subsistence access	●	0	0	0	0
						Ross's gull	Staging					●	o	Residant recreation	●	0	0	0	0
						Oldsquaw	Staging, Molting			●	●	●							
						Common eider	Migration			o	●	o							
						King eider	Migration			o	●	o							
E'	2.5	20-50	15	Beach	Sandy gravel	Shorebirds	Staging			●	●			Waterfowl hunting	●	●	●	●	
						Ross's gull	Staging					●	o	Subsistence access	●	●	●	●	●
						Oldsquaw	Staging, Molting			●	●	●		Resident recreation	●	●	●	●	●
						Common eider	Migration			o	●	●							
						King eider	Migration			o	●	o							
						Brant	Migration			o	●	●							
F'	1.2	10-20	15	Small estuary, lagoon		Shorebirds	Staging			●	●			Waterfowl hunting	●				
				Stable inlet		Common eider	Migration			o	●	●		Resident retreation	●	9	9	0	9
				Se It-tolerant wet 1 and	Peat	King eider	Migration			o	●	o							
				Beach	Gravel l y sand	Brant	Migration			o	●	●							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES								HUMAN RESOURCES AND USE					
				Across-Shore Character															
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	14	J	J	A	S	O	Activity	J	J	A	S	O
A	1.6	20-30	100-500	Small estuary, lagoon	--	Phalarope	Staging			o	●	o		Subsistence access	●	●	●	●	●
				Ephemeral inlet	--									Resident retreation	●	●	●	●	●
				Road	Sandy gravel														
				Beach	Sandy gravel														
B	2.0	30-50	100-500	Road	Sandy gravel									Subsistence access	●	●	●	●	●
				Beach	Sandy gravel									Resident recreation	●	●	●	●	●
C	3.2	20-30	100-500	Active high tundra cliff	Mud, sand, or gravel									City of Barrow	●	*	9	8	=
														Subsistence access	●	.	.	.	.
				Beach	Sandy gravel									Resident retreation	●	0	0	0	0
D	0.5	5-15	100-500	Road	Mud, sand, or gravel									Community of Barrow	●	-	-	-	-
				Beach	Sandy gravel									Subsistence access	●	-	-	-	-
														Resident recreation	●	●	●	●	●
E	3.8	20-30	100-500	Active high tundra cliff	Mud, sand, or gravel									Subsistence access	●	●	●	●	●
				Beach	Sandy gravel									Resident retreation	●	●	●	●	●
F	0.0	50	100-500	Small estuary, lagoon	--	Phalarope	Staging			o	●	o		Subsistence access	●	●	●	●	●
				Ephemeral inlet	--	Glaucous gull	Staging			●	O	*		Resident recreation	●	●	●	●	●
				Road	Gravel	Arctic tern	Staging			●	O	9							
				Beach	Sandy gravel	Water fowl	Staging			●	*	-							

CHUKCH I SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYS I CAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AwD USE					
				Across-Shore Character														
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	0.6	30	I 00-500	Smal I estuary, lagoon										Subs i stence access	●	●	. ●		●
				Ephemeral i n let	- -									Resident recreation	●	●	●	●	●
				Beach	Sandy gravel														
B	12.0	20-50	I 00-500	Multiple small rivers	·									Subs i stence access	●	●	●	●	●
				Active high tundra cliff	Mud , sand , or gravel									Resident recreation	.	●	●	●	●
				Beach	Sandy grave l														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Have Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	1.6	50-100	100-500			Wetland			●	9	0	0	0	Resident recreation	●	●	●	e	●
				Single channel river		Phalarope	Staging			o	●	o							
				Intertidal fl at	Mud, Sand	Glaucous gull	Staging			●	0	0							
				Small estuary, lagoon	Mud, Sand	Arctic tern	Staging			●	9	9							
				Salt-tolerant wetland	Peat	Waterfowl	Staging			●	●	●							
				Ephamara l inlet	·														
				Beach	Sandy gravel														
	9.3	10-30	100-500	Multiple small rivers	- -														
				Active high tundra cliff	Mud, sand, or gravel														
				Beach	Logs/Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	3.2	30-50	100-500	Multiple small rivers															
				Active high tundra cliff	Mud, sand, or gravel														
				Beach berm	Logs/Gravelly sand														
				Beach face	Sandy gravel														
B	6.2	10-20	100-500	Multiple small rivers															
				Active high tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														
C	0.7	30	100-500	Single channel river															
				Beach	Sandy gravel														
D	1.0	5-10	100-500	Active high tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														
E	0.6	50	100-500	Single channel river	--	Phalarope	Staging			o	●	o							
				Small estuary, lagoon	Mud, Sand	Glaucous gull	Staging			●	*	*							
				Ephemeral inlet	--	Arctic tern	Staging			●	*	*							
						Waterfowl	Staging			●	o	.							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	unit Length (km)	Unit Width (m)	Maximum Wave Fetch (lull)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	8.9	I 0-20	I 00-500	Multiple small rivers Active high tundra cliff Beach	· Mud, sand, or gravel / Sedimentary bedrock Sandy grave I													
B	2.4	5	I 00-500	Active high tundra cliff	Mud, sand, or grave I/ Sedimentary bedrock													

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AND USE	
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M J J A S O	Activity	J J A S O
A	2.3	10-30	100-500	Single channel river	—					
				Active high tundra cliff	Mud, sand, or gravel					
				Beach	Sandy gravel					
B	4.4	5-20	100-500	Active high tundra cliff	Mud, sand, or gravel					
				Beach	Sandy gravel					
C	3.0	5-20	100-500	Multiple smell rivers	—					
				Active high tundra cliff	Mud, sand, or gravel					
				Beech	Sandy gravel					

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UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
				Across-Shore Character														
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	6.4	5-10	100-500	Multiple small rivers	—														
B	0.5	10-50	100-500	Single channel river	—														
				Active high tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														
C	1.5	5-10	100-500	Active high tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														

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UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
				Across-Shore Character														
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	2.8	10-20	100-500	Multiple small rivers	—														
				Active high tundra cliff	Mud, sand, or graven														
					Sedimentary bedrock														
				Beach	Sandy gravel														
B	0.6	20-50	100-500	Single channel river	—														
				Small estuary, lagoon	—														
				Ephemeral inlet	--														
				Beach	Sandy gravel														
C	1.1	5-1o	100-500	Active high tundra cliff	Mud, sand, or gravel/														
					Sedimentary bedrock														
D	2.1	20-30	100-500	Active low tundra cliff	Sand														
				Beach	Gravelly sand														
E	1.1	20-30		Road	Sandy gravel									DEW Line site and airstrip (abandoned)					
				Small pond(s)	Peat														
				Salt-tolerant wetland	Peat														
				Washover fan	Gravelly sand														
				Beach	Gravelly sand														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	unit Length (km)	Unit width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	3.5	50	100-500	Washover fan	Sandy grave l	Phalarope	Staging			o	●	o							
				Beech	Sandy gravel	Glaucous gull	Stag ing			●	●	●							
						Arctic tern	Staging			●	●	●							
B	5.6	50	100-500	Washover fan	Grave l l y sand	Arctic tern	Nesting (25 pr.), Staging		●	0	0	0							
				Beach	Grave lly sand	Phalarope	Stag ing			o	●	●							
						Glaucous gull	Stag ing			●	*	*							
						Arctic tern	Staging			●	9	*							
C'	6.5	1 0-20	15	Washover fan	Grave l l Y sand														
D'	0.8	5-20	3	Small estuary, lagoon		Shorebirds	Stag ing			●	-								
				Stable inlet	--	Waterfowl	Staging			●	0	0							
				Beach	Logs/Gravel l y sand														
				Intertidal flat	Mud, Sand														
E'	0.5	20	3	Single channel river	--														
				Salt-tolerant wetland	Past														
				Beach	Lags/Grave l l Y sand														
				Intertidal flat	Sand														
F'	3.3	10-20	3	Active low tundra c1 iff	Mud, sand, or gravell														
					Sad i mentary bedrock														
				Beach	Gravel ly sand														
G'	1.0	20-50	3	Salt-tolerant wet l and		Wet l and			●	0	0	0	-						
					Peat	Shorebirds	Stag ing			●	*								
				Beach	Grave l l Y sand	Brent	Staging			o	●	●							
H'	0.7	1 0-20	15	Active 1011 tundra cliff	Mud, sand, or gravel														
				Beech	Gravel l y sand														
I'	0.5	20	15	Single channel river	--														
				Salt-tolerant wetl and	Pest														
				Beach berm	Logs/Grave l l Y sand														
				Beach face	Gravel l Y sand														
J'	1.7	10-20	15	Multiple small rivers															
				Active low tundra cliff	Mud, sand, or grave l														
				Beach	Sandy gravel														
Peard Bay	—	- -		Open water area	--	Waterfowl	Molting, Staging			●	9	*		Beluga whale hunting		●	O		
						Beluga whale	Sumner i ng			●	o								
						Spotted sea l	S - r i n g			●	o	e							

CHIN(CH I SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES								HUMAN RESOURCES AND USE					
				Across-Shore Character															
Unit Identifier	Unit Length (km)	Unit Width (m)	Max imum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	0.7	10-20	10	Active low tundra cliff	Mud, sand, or gravel														
				Beach	Sandy grave I														
B'	0.6	20-50	10	Active low tundra cliff	Mud, sand, or gravel														
				Beach	Grave I I Y sand														
c'	0.5	15	10	Single channel river	--	Wetland			●	o	*	*	*						
				Sa I t-tolerant wet I and	Peat														
				Active low tundra cliff	Mud, sand, or gravel														
				Beach berm	Lags/Grave I 1 Y sand														
				Beach face	Gravel I Y sand														
o'	6. I	15	10	Multiple smell rivers															
				Active low tundra cliff	Mud, sand, or gravel														
				Beach	Gravel ly sand														
Peard Bay	--	--	--	Opan water area		Water fowl	Molting, Staging			●	8	m		Belugawhale hunting		●	o		
						Beluga whale	Summering			●	O								
						Spotted see I	S - r i n g			●	0	0							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A*	7.6	10-20	10	Active low tundra cliff	Mud, sand, or gravel														
				Beach	Pact/Gravelly sand														
Peard Bay	--	--	--	Open water area		Waterfowl	Molting, Staging			●	0	9		Beluga whale hunting		●	o		
						Beluga whale	Sumnering			●	0								
						Spotted seal	Summering			●	O	*							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUNAN RESOURCES AWD USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	4.2	10-20	10	Multiple small rivers	—														
				Active low tundra cliff	Mud, sand, or gravel														
				Beach	Gravelly sand														
B'	1.8	20-50	10	Small pond(s)	—														
				Salt-tolerant wetland	Peat														
				Ephemeral inlet	—														
				Beach	Mud, Sand														
				Intertidal flat	Mud, Sand														
C'	4.5	10-20	10	Active low tundra cliff	Mud, sand, or gravel														
				Beach	Gravelly sand														
D'	2.8	20-50	3	Active low tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														
				Intertidal flat	Mud, Sand														
E'	1.0	20-30	3	Single channel river	--														
				Multiple channel delta	Mud, sand, or gravel														
				Beach	Mud, Sand														
				Intertidal flat	Mud, Sand														
F'	3.5	10-20	3	Multiple small rivers															
				Active low tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														
G'	1.2	20-50	5	Salt-tolerant wetland	Peat	Wetland		•	•	•	•	•							
				Beach	Sandy gravel														
H'	1.8	10-20	5	Active high tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
1'	2.2	I 0-30	10	Active low tundra cliff Beach	Mud, sand, or gravel Sandy gravel														
Peard Bay		--	--	Open water area	--	Waterfowl Beluga whale Spotted seal	Molting, Staging S-ring Sumnering			● ● ● ● 0 ● O *					Beluga whale hunting		● 0		
Kugrua Bay	--	--		Open water area	--	Spotted seal	S-ring		●	O * . *					Spotted seal hunting Fishing		● ● ● * * *		

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE				
Unit Identifier	Unit Length (lull)	Unit Width (m)	Maximum Wave Fetch (Am)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	15.2	10-50	10	Active low tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														
B'	0.5	20	10	Single channel river															
				Small estuary, lagoon	—														
				Stable inlet	—														
				Beach	Mud, sand, or grave l														
C'	2.5	10	5	Multiple small rivers	—														
				Active low tundra cl iff	Mud, sand, or gravel														
D'	1.6	5-10	3	Active low tundra cliff	Mud, sand, or gravel														
E'	0.4	20-S0	3	Smal l pond(s)	- -														
				Washover fan	Sandy gravel														
				Beach	Sandy grave l														
F'	6.5	10-20	5	Multiple smell rivers															
				Active low tundra c1 iff	Mud, sand, or gravel														
				Beach	Sandy grave l														
Kugrua Bay	--	--		Open water area	---	Spotted sea l	Summering		●	m	e	*	*	Spotted seal hunting		●	*		
														Fishing		●	*	m	e

CHUKCH 1 SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYS I CAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AND USE	
Unit Identifier	Unit Length (bun)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphologic cal Components	Across-Shore Character: Substrate Type	Resource	Activity	14 J J A S O	Activity	J J A S O
A	3.0	--	1 00-500	Stable Inlet		Beluga whale	Summering area	● ● ● ● ●		
						Spotted sea l	S-r i ng area	● a o		
B	2.8	50-100	100-500	Beach	Sandy gravel	Shorebirds	High cone. staging	● ●		
c	0.4	20	100-500	Foredune	Gravel ly sand	Black gull lemot	Nesting (20 pr.)	o ● ●		
				Beach	Sandy grave l	Arct ic tern	Nesting (20 pr.)	● ●		
						Common eider	Nesting (no. prs. unknown)	● ●		
						Shoreb l rds	High conc. staging	● 0		
D	3.8	50-100	100-500	Beach	Gravel ly sand	Shorebirds	High -. staging	● ●		
						Spotted sea l	Hau lout	● ● ●		
						Oldsquaw	Stag i ng	● 0 0		
E	0.6	20-500	100-500	Isolated duna(s)	Gravel ly sand	Shoreb i rds	High -. staging	● ●		
				Reach storm berm	Gravel ly sand	Spotted sea l	Hau lout	● ● ●		
				Beach face	Gravel ly sand	Oldsquaw	Stag i ng	● 0 0		
F	1.0	200-500	100-500	Was hover fan	Gravel l Y sand	Shorebirds	High cone. staging	● ●		
				Beach storm berm	Gravel l y sand	Spotted sea l	Haulout	● O *		
				Beach face	Gravel ly sand	Oldsquaw	Stag i ng	● ● ●		
G'	7.2	20-50	13	Beach	Gravel ly sand					
				Intertidal flat	Gravel l y sand					
Peard	Bay	-- --	--	Opan water area	--	Waterfowl	Molting, Staging	· ● 0 0	Bel uga whale hunting	● o
						Beluga whale	Summer i ng	● O		
						Spotted sea l	S - r i n g	● * *		

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES								HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	5.3	100-500	>500	Washover fan	Gravelly sand	Shorebirds	High cone. staging			●	●								
				Beach	Gravelly sand	Spotted seal	Haulouts			●	●	●							
B	2.3	50-100	>500	Foredune	Gravelly sand	Shorebirds	High cone. staging			●	●								
				Beach	Gravelly sand	Spotted seal	Haulouts			●	●	●							
C	1.0	--	>500	Ephemeral inlet	--	Shorebirds	High cone. staging			●	●								
						Spotted seal	Haulouts			●	●	●							
D'	1.4	20-50	10	Salt-tolerant wetland	Peat	Cannon eider	Nesting (no. prs. unknown)		●	●									
				Beach	Gravelly sand														
				Intertidal flat	Sand														
E'	2.5	20	10	Small pond(s)	--	Wetland			●	●	●	●	●						
				Salt-tolerant wetland	Peat	Common eider	Nesting (no. prs. unknown)		●	*									
				Beach	Gravelly sand	Shorebirds	Staging			●	*								
				Intertidal flat	Sand	Brant	Staging			o	●	●							
F'	3.7	10-20	10	Small pond(s)	--	Wetland			●		*	9	*						
				Salt-tolerant wetland	Peat	Common eider	Wasting (no. prs. unknown)		●										
				Beach	Gravelly sand	Shorebirds	Staging			●	o								
				Intertidal flat	Sand	Brant	Staging			o	●	●							
G'	1.8	10-20	10	Beach	Gravelly sand														
				Intertidal flat	Sand														
Peard Bay	-.	—	--	Open water area	--	Waterfowl	Molting, Staging			●	0	0		Beluga whale hunting		●	o		
						Beluga whale	Summering			●	0								
						Spotted seal	Summering			●	*	9							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AWD USE	
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M J J A S O	Activity	J J A S O
A	4.2	20	>50D	Foredune	Gravel/V sand	Shorebirds	Staging	● ●		
				Beach	Sandy gravel	Brant	Staging	o ● ●		
						Spotted seal	Haulouts	● ● ●		
B	2.3	50-500	>500	Salt-tolerant wetland	Peat	Shorebirds	Staging	● .		
				Washover fan	Sandy gravel	Brant	Staging	o ● ●		
				Foredune	Gravel/V sand	Spotted seal	Haulouts	● 0 0		
				Beech	Sandy gravel					
C	2.8	100-200	>500	Washover fan	Sandy gravel					
				Beach	Sandy gravel					
D'	2.0	10-50	10	Salt-tolerant wetland	Peat	Wetland		● O * * *		
				Washover fan	Sandy gravel	Common eider	Nesting (no. prs. unknown)	● *		
				Foredune	Gravel/V sand					
				Beach	Sandy gravel					
E'	6.8	20-50	<5	Salt-tolerant wetland	Peat	Wetland		● m . e .	Waterfowl hunting	● -
				Intertidal flat	Mud, Sand	Brant	Staging	o ● ●		
						Shorebirds	Staging	● ●		
F'	7.8	10	<5	Salt-tolerant wetland	Peat	Wetland		● 0 0 0 0	Waterfowl hunting	● -
				Beach	Mud, Sand	Brant	Staging	o ● ●		
						Shorebirds	Staging	● *		
G'	3.5	10	10	Active low tundra cliff	Mud, sand, or gravel					
				Beach	Sandy gravel					
H'	2.2	10-20	10	Small estuary, lagoon						
				Stable inlet						
				Beach	Sandy gravel					
Peard Bay	---		- .	Open water area		Waterfowl	Molting, Staging	● 0 0	Beluga whale hunting	● 0
						Beluga whale	Sumnering	● O		
						Spotted seal	Summering	● ● m		

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	2.2	50-100	>500	Small estuary, lagoon	--														
				Washover fan	Sandy gravel														
				Beach	Sandy gravel														
B	1.2	50-100	>500	Small Prod(s)	--														
				Salt-tolerant wetland	Peat														
				Ephemeral inlet	--														
				Beach	Sandy gravel														
c	5.4	30	>500	Multiple small rivers	—														
				Active low tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES								HUMAN RESOURCES AND USE					
				Across-Shore Character															
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	1.0	50-100	>500	Multiple small rivers	--														
				Sal t-tolerant wet land	Peat														
				Beach	Sandy gravel														
B	1.9	50-100	500	Sma l l estuary, lagoon															
				Ephemeral inlet															
				Washover fan	Sandy grave l														
				Beach	Sandy gravel														
C	1.2	50-100	>500	Small pond(s)	—														
				Sa l t-tolerant wet l and	Peat														
				Foredune	Gravel l Y sand														
				b a t h	Sandy gravel														
D	3.8	50-2011	500	Small estuary, lagoon	—														
				Ephemeral inlet															
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
E	3.0	50-100	>500	Active low tundra cliff	Logs/														
					Mud, sand, or gravel														
				Beach berm	Gravel l y sand														
				Beach face	Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AND USE	
Unit Identifier	Unit Length (km)	unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	14 J J A S O	Activity	J J A S O
A	4.2	50	>500	Multiple small rivers						
				Active low tundra cliff	Mud, sand, or gravel					
				Beach berm	Gravelly sand					
				Beach face	Gravelly sand					
B	2.9	50	>500	Salt-tolerant wetland	Peat					
				Active low tundra cliff	Mud, sand, or gravel					
				Beach berm	Legs/Gravelly sand					
				Beach face	Gravelly sand					
C	1.5	50	>500	Active low tundra cliff	Mud, sand, or gravel					
				Reach storm berm	Gravelly sand					
				Beach	Gravelly sand					
D	0.5	50-200	>500	Single channel river	--	Shorebirds	Staging	• •		
				Stable inlet	·	Waterfowl	Staging	• • •		
				Isolated dune(s)	Sand					
				Beach	Gravelly sand					
E	1.6	30-50	>500	Active low tundra cliff	Mud, sand, or gravel					
				Beach	Gravelly sand					

CHUKCHI SEA COASTAL RESOURCES TAGLE

UNIT DIMENSIONS			PHYS I CAL RESOURCES			BIOLOG 1 CAL RESOURCES									HUMAN RESOURCES ANO USE						
Unit Identifier	Unit Length (km)	Unit Width (ml	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O		Activity	J	J	A	S	O	
A	1.6	50	>500	Active lew tundra c1 iff	Mud, sand, or gravel										Community of Wainwright	●	●	●	●	●	
				Beach	Sand																
B	2.3	30-50	>500	Multiple small rivers	--										Community of Wainwright	●	0	0	6	0	
				Active law tundra cliff	Mud, sand, or gravel																
				Beach	Sand																
C	2. I	30-50	>500	Multiple small rivers											*n I ty of Wainwright	●	●	●	●	●	
				Road	Mud, sand, or grave I																
				Active low tundra c1 iff	Mud, sand, or gravel																
				Beach	Sand																
D	2.7	30	>500	Active low tundra c1 iff	Mud, sand, or gravel										Community of Wainwright	●	●	●	●	●	
				Beach	Sand																
E	0.7	200-500	>500	Sa I t-tolerant wet f and	Rud										Community of Wainwright	●	*	O	e	*	
				Beach berm	Logs/Grave I I y sand																
				Beach face	Gravel ly sand																
				Intertidai flat	Sand																

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE					
Unit identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	0.3	—	<5	Stable inlet	—	Shorebirds	Staging			●	*			Beluga whale hunting		●	o		
						Waterfowl	Staging			●	*	*							
						Beluga whales	S-ring			●	o								
0'	1.5	10–30	<2	Active low tundra cliff	Sand														
				Beech	Sandy gravel														
C'	1.6	200-500	<2	Salt-tolerant wetland	Peat	Wetland			●	o	o	o	o						
				Beach	Sandy gravel	Shorebirds	Staging			●	o								
				Intertidal flat	Mud														
D'	2.3	20	7	Reed	Sandy gravel														
				Beach	Sandy gravel														
//	3.4	10–20	8	Active high tundra cliff	Sand														
				Beach	Sandy gravel														
F'	0.9	10	5	Boat ramp	Sandy gravel														
				Active low tundra cliff	Sand														
				Beach	Sandy gravel														
G'	0.6	--	5	Small estuary, lagoon	—														
				Ephemeral inlet	—														
				Reed	Mud, sand, or gravel														
				Beach	Mud, sand, or gravel														
H'	2.0	I 0-20	5	Active low tundra cliff	Mud, sand, or gravel														
				Beach	Gravelly sand														
I'	3.1	10-50	5	Single channel river															
				Active low tundra c1 iff	Mud, sand, or gravel														
				Beach	Gravel														
J'	0.7	I 0-20	3	Active low tundra cliff	Mud, sand, or gravel														
				Beach	Sandy gravel														
				Intertidal flat	Sand														

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AND USE	
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M J J A S O	Activity	J J A S O
K'	0.5	20-50	3	Salt-tolerant wetland	Mud	Wetland		● e m o o		
				Small estuary, lagoon						
				Stable inlet	—					
				Beach	Sandy gravel					
L'	0.3	20	3	Active low tundra cliff	Mud, sand, or gravel					
				Small estuary, lagoon	—					
				Stable inlet	—					
				Beach	Sandy gravel					
Wainwright Lagoon	--	--	--	Open water area		Beluga whale	Spring	● o	Beluga whale hunting	● o
						Waterfowl	Staging	● * *	Fishing	● 0 0 0

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O		Activity	J	J	A	S	O
A'	3.0	20	5	Single channel river	—															
				Active low tundra cliff	Mud, sand, or gravel															
				Beach	Sandy gravel															
B'	1.9	20	2	Small estuary, lagoon											DEW Line station and airstrip	●	*	*	*	*
				Beach	Gravel															
				Read	Gravel										Gravel mining operation	●	e	.		
c'	1.3	20-50	6	Small estuary, lagoon	—															
				Ephemeral inlet																
				Foredune	Sandy gravel															
				Beach	Sandy gravel															
D'	6.8	10		Multiple smell rivers	—															
				Active lox tundra cliff	Mud, sand, or gravel/ Sedimentary bedrock															
				Beach	Sandy gravel															
E'	2.1	10	5	Active low tundra cliff	Mud, sand, or gravel															
				Beach	Sandy gravel															
F'	0.8	20-50	5	Active low tundra cliff	Mud, sand, or gravel															
				Small estuary, lagoon																
				Stable inlet	—															
				Beach	Gravel V sand															
G'	3.3	20	5	Active low tundra c1 iff	Mud, sand, or gravel															
				Beach	Gravel															
H'	2.4	10-20	5	Multiple smell rivers	—															
				Active high tundra cliff	Mud, sand, or gravel															
				Beach	Gravel															
Kuk River	--	--	--	Open water area											Fishing	●	\	\		

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate. Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	3.8	20	7-1o	Active low tundra cliff Beach	Gravel ly sand Sandy gravel														
B'	0.3	20	5	Stable inlet															
c'	I.0	50-200	7-1o	Washover channel Ephemeral inlet Beach	- - — Grave I														
D'	8.0	20	10	Active low tundra cliff Beach	Gravel ly sand Gravel														
Kuk River	--	—	- -	Open water area	—									fishing	●	●	●	●	

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	1.4		<3	Small estuary, lagoon Ephemeral inlet															
B'	9.1	5-1o	<3	Active low tundra cliff Beach	Mud, sand, or gravel Gravel lv sand														
C'	2.0	20	<3	Beech	Gravel														
D'	11.0	5-1o	<3	Multiple small rivers Active low tundra c1 iff Beach	— Mud, sand, or grave l Gravel IV sand														
Kungok River	—	—	—	Open water area	- -									Fishing		●	0	9	0

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphologic Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	18.9	10-20	<5	Active low tundra cliff Beach	Gravel and sand Sandy gravel														
B'	3.8	50-150	3	Active low tundra cliff Beach storm berm Beach berm Beech face	Gravel and sand Gravel Gravel Gravel														
C'	1.0	10-20	5	Small estuary, lagoon Ephemeral inlet Beach berm Beach face	— -- Gravel Gravel														
D'	1.3	20	5	Small estuary, lagoon Flood-tidal delta Ephemeral inlet	— Mud, sand, or gravel														
Kuk River	--	--	--	Open water area	--									Fishing	●	0	0	0	

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUNAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	2.1	20-50	6	Small estuary, lagoon	--														
				Multiple small rivers	--														
				Beach	Gravelly sand														
B'	17.5	20	5	Multiple small rivers	—														
				Active low tundra cliff	Gravelly sand														
				Beach	Gravel														
c'	1.0	—	7	Small estuary, lagoon	—														
				Stable inlet	—														
D'	1.0	50	5	Salt-tolerant wetland	Peat														
				Beach	Gravel														
E'	1.8	20	5	Multiple small rivers	--														
				Active high tundra cliff	Gravelly sand														
				Beach	Gravelly sand														
. Kuk River	--	--	--	open water area										Fishing	●	*	9	9	

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES ANO USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	2.3	20	<3	Multiple small rivers Active low tundra cliff Beach	-- Sandy gravel Sandy gravel														
B'	0.9	50	<3	Active low tundra cliff Beach	Sandy gravel Sandy gravel														
C'	1.4	20-50	<3	Active low tundra cliff Beach Intertidal flat	Sandy gravel Sandy gravel Sand														
D'	2.2	200-500	5	Multiple channel delta Intertidal flat	— Sand														
E'	3.5	10-50	<3	Multiple small rivers Active low tundra cliff Beach	-- Gravelly sand Gravel														
Kuk River	--	—	--	Opan water area	—									Fishing		●	*	S	O

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CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	19.0	10-15	<3	Active low tundra cliff Beach	Sandy gravel Sandy gravel														
B'	0.5	—	<3	Small estuary, lagoon Stable inlet	— —														
Ivisaruk River	—	—	—	Open water area	—									Fishing	•	•	•	•	•

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AWD USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Substrata Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	0.7	200	>500	Beach berm	Sandy gravel														
				Beach face	Sandy gravel														
B	2.4	100-200	>500	Foredune	Sandy gravel									Egg gathering	●	0			
				Beach berm	Sandy gravel									Waterfowl hunting	●	●			
				Beach face	Sandy gravel														
C	4.1	100	>500	Salt-tolerant wetland	Peat	Wetland			●	,	e	o	e						
				Small estuary, lagoon	—														
				Ephemeral inlet	—														
				Beach berm	Sandy gravel														
				Beach face	Sandy gravel														
D	0.9	100	>500	Salt-tolerant wetland	Peat														
				Small estuary, lagoon															
				Washover channel	Sandy gravel														
				Beach berm	Sandy gravel														
				Beach face	Sandy gravel														
E	0.9	100	>500	Salt-tolerant wetland	Peat														
				Beach berm	Sandy gravel														
				Beach face	Sandy gravel														
F	0.7	100	>500	Salt-tolerant wetland	Peat	Wetland			●	●	●	●	●						
				Single channel river	--														
				Small estuary, lagoon	--														
				Beach	Sandy gravel														
G'	2.5	100	<2	Foredune	Sandy gravel														
				Beach	Sandy gravel														
H'	0.9	100	<2	Passive low tundra cliff	Sandy gravel														
				Salt-tolerant wetland	Sandy gravel														
				Beach	Sandy grave 1														
I'	2.1	20	5	Active high tundra cliff	Sandy gravel														
				Beach	Sandy gravel														
J'	0.4	20	5	Small estuary, lagoon	Sandy gravel														
				Beach	Sandy gravel														
K'	0.6	50	5	Small estuary, lagoon	--														
				Stable Inlet	·														
				Beach	Sandy gravel														

CHUKCH I SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES ANO USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphologic cal Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	5.2	50-100	>500	Passive low tundra cliff	Peat	Wet land			●	0	0	*	0						
				Small estuary, lagoon	—														
				Ephemeral in let	- -														
				Beach berm	Sandy grave I														
				Beach face	Sandy grave I														
B	2.9	50-100	>500	Se I t-tolerant wet I and	Peat	Wet I and			●	●	●	●	●						
				Small estuary, lagoon	—														
				Ephemeral Inlet	—														
				Fled-tidal delta	Sandy grave I														
				Beach	Sandy grave I														
C	0.9	50	>500	Active low tundra cliff	Sandy grave I														
				Beech berm	Sandy grave I														
				Beach face	Sandy gravel														
D	2.5	I 00-20	>500	Salt-tolerant wet 1 and	Peat	Wet I and			●	●	●	●	●						
				Smal I estuary, lagoon	- -	Shoreb i rds	Staging			●	●								
				Beech berm	Sandy grave I	Brant	Staging			o	●	●							
				Beach f ace	Sandy grave I														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (full)	Unit Width (in)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	9.5	100	>500	Salt-tolerant wet land	Peat														
				Small estuary, lagoon	—														
				Washover fan	Sandy gravel														
				Beach berm	Sandy gravel														
				Beach face	Sandy gravel														
B	0.7	200	>500	Small estuary, lagoon	--	Wetland			●	*	e	m	O						
				Foredune	Sandy gravel														
				Beach berm	Sandy gravel														
				Beach face	Sandy gravel														
Kasegaluk Lagoon	--	--	--	Open water area		Waterfowl	High cane. areas, Staging		●	0	0			Beluga whale hunting		●	o		
						Brant	Staging		o	●	●			Spotted seal hunting		●	●		
						Shorebirds	Staging		●	*									
						Phalarope	Staging		o	●	o								
						Arctic tern	Staging		●	o	m								
						Glaucous gull	Staging		●	0	0								
						Beluga whale	S-ring, Calving(?)		●	o									
						Spotted seal	S-ring		●	0	-								

Table _. CHUKCHI SEA COASTAL RESOURCES TABLE

ONIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	9.0	50	>500	Beach storm berm Beach face	Sandy gravel Sandy gravel														
B	0.5	50	>500	Small estuary, lagoon Stable inlet	— —														
C'	9.0	20	5	Beach	Sandy gravel														
D'	3.9	20	5	Multiple small rivers Active low tundra cliff Beach	— Sandy gravel Sandy gravel														
E'	1.0	20-50	5	Salt-tolerant wet land Beach	Peat Sandy gravel	Wetland			●	m	.	m	.						
F'	1.4	20-50	5	Active low tundra cliff Beach berm Beach face	Sandy gravel Legs/Sandy gravel Gravelly sand														
G'	5.0	15	5	Multiple small rivers Active low tundra cliff Beach berm Beach face	 Sandy gravel Legs/Sandy gravel Gravelly sand														
Kasegaluk Lagoon	--	-.	---	Open water area	--	Water fowl	High conc. areas, Staging		●		●		●	Beluga whale hunting		●		0	
														Spotted seal hunting		●		.	
						Brant	Staging		o		●		●						
						Shorebirds	Staging		●		0								
						Phalarope	Staging		o		●		o						
						Arctic tern	Staging		●		*		*						
						Glaucous gull	Staging		●		9		9						
						Beluga whale	Summering, Calving(?)		●		0								
						Spotted seal	Summering		●		0		0						

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphologic Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	8.7	50-100	>500	Beach storm berm Beach face	Sandy gravel Sandy gravel														
B	0.5	—	>500	Small estuary, 1 lagoon Stable inlet	— —														
C'	8.7	50	5	Beach	Sandy gravel														
D'	5.6	20	5	Active low tundra cliff Beach	Sandy gravel Sandy gravel														
E'	0.2	--	5	Single channel river Multiple channel delta Stable inlet	Mud, sand, or gravel Sand —									Fishing	●	0	0	0	
F'	0.7	20	5	Small estuary, lagoon Ephemeral inlet Beach	-- Sandy gravel														
G'	2.5	20-100	?	Salt-tolerant wetland Beach	Peat Gravelly sand	Wetland			●	0	o	w	w						
H'	2.5	30	10	Multiple small rivers Active low tundra cliff Beach	— Gravelly sand Gravelly sand														
Kasegaluk Lagoon	--	--	—	Open water area	--	Waterfowl	High conc. areas, Staging			●	-	-		Beluga whale hunting		●	0		
						Brant	Staging			o	●	●		Spotted sea l hunting		●	●		
						Shorebirds	Staging			●	9								
						Phalarope	Staging			o	●	o							
						Arctic tern	Staging			●	●	●							
						Glaucous gull	Staging			●	0	0							
						Beluga whale	Summering, Calving(?)			●	o								
						Spotted seal	Summering			●	o	o							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	5.8	200	>500	Beach storm berm Beach face	Sandy gravel Sandy gravel														
B	2.3	200	>500	Beach berm Beach storm berm Beach face	Sandy gravel Sandy gravel Sandy gravel	Common eider Glaucous gull Arctic tern	Nesting (450+ pr.) Nesting (10 pr.) Nesting (42 pr.)		●	9 O O									
C	1.3	—	>500	Small estuary, lagoon Stable inlet	— —														
D'	8.3	20	8	Beach	Sandy gravel														
E'	11.1		8	Active low tundra cliff Beach	Sandy gravel Sandy gravel														
F'	0.6	50-100	8	Single channel river Multiple channel delta Salt-tolerant wet land Beach	— Peat Logs/Sandy gravel	Wetland			●	●	●	●	●						
G'	0.7	20-50	10	Salt-tolerant wetland Beach	Peat Legs/Gravelly sand	Wetland			●	●	●	●	●						
H'	3.0	20-50	10	Single channel river Active low tundra cliff Beach	— Sandy gravel Sandy gravel														
Kasegaluk Lagoon	--	--		Open water area	--	Waterfowl	High conc. areas, Staging			●	●	●		Beluga whale hunting Spotted seal hunting fishing		●	●	●	●
						Brant	Staging			○	●	●							
						Shorebirds	Staging			●	—								
						Phalarope	Staging			○	●	○							
						Arctic tern	Staging			●	●	●							
						Glaucous gull	Staging			●	●	●							
						Beluga whale	Summering, Calving(?)			●	○								
						Spotted seal	Summering			●	●	●							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O		Activity	J	J	A	S	O
A	7.2	100-300	>500	Washover fan	Sandy gravel															
				Beach storm berm	Sandy gravel															
				Beach face	Sandy gravel															
B	I .2	200	>500	Foredune	Sandy gravel															
				Reach f ace	Sandy gravel															
C'	7.I	I00	9	Beach	Sandy gravel															
D'	I .2	300	9	Salt-tolerant wet I and	Peat	Wet I and	Stag i ng		●	0	0	9	0							
				Beach	Sandy gravel	Shorebi rds	Stag i ng			●	a									
						Brant				o	●	●								
E'	0.5	20	10	Salt-tolerant wet land	Peat	Wet I and			●	●	●	●	●							
				Beach	Sandy gravel															
F'	3.0	20-30	I2	Single channel river	---															
				Active low tundra cliff	Sandy gravel															
				Beach	Sandy gravel															
G'	2.0	20	10	Small estuary, lagoon		Wet I and			●	●	●	●	●							
				Ephemeral inlet	--	Waterfowl	Stag i ng			●	●	●								
				Sal t-tolerant wet I and	Logs	Shorebirds	Stag i ng			●	●									
				Beach	Sandy gravel	Brant	Stag i ng			o	●	●								
H'	4.0	10-20	10	Active low tundra cliff	Sandy grave I															
				Beach	Sandy gravel															
Kasega I uk Lagoon	-	--	—	Open water area		Water few I	High conc. areas, Stag i ng			●	●	●			Beluga whale hunting		●	0		
															Spotted sea I hunting		●	.		
						Brant	Stag i ng			o	●	●								
						Shorebirds	Stag i ng			●	0									
						Phalarope	Stag i ng			o	●	o								
						Arctic tern	Stag i ng			●	0	0								
						Glaucous gu l I	Stag i ng			●	.	*								
						Beluga whale	Summering, Calving(?)			●	0									
						Spot ted sea I	Summering			a	*	*								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (full)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	8.1	100	>500	Beach storm harm Beach face	Sandy gravel Sandy gravel														
B'	2.7	20	10	Beach	Sandy gravel														
C'	5.5	500	10	Beach Intertidal flat	Sandy gravel Mud														
D'	2.3	500	15	Salt-tolerant wetland Beach Intertidal flat	Logs Sand Mud														
E'	7.6	20-50	15	Active low tundra cliff Beach	Sandy gravel Sandy gravel	Back shore Wetland		●	0	9	0	0							
F'	0.9		9	Small estuary, lagoon Stable Inlet	—									Fishing	●	*	D	O	
G'	0.6	20	7	Small estuary, lagoon Ephemeral Inlet Salt-tolerant wetland Beach	-- Logs Sandy gravel														
Kasegaluk Lagoon	--	--	—	Open water area	--	Waterfowl	High conc. areas, Staging			●	*	m		Beluga whale hunting Spotted seal hunting	● ●	o *			
						Brant	Staging			o	●	●							
						Shorebirds	Staging			●	.								
						Phalarope	Staging			o	●	o							
						Arctic tern	Staging			●	*	O							
						Glaucous gull	Staging			●	0	0							
						Beluga whale	Summering, Calving(?)			●	o								
						Spotted seal	Summering			●	*	9							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
				Across-Shore Character														
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	3.1	20-50	>500	Washover fan	Sandy gravel														
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
B	1.9	500	>50U	Foredune	Sand	Common eider	Wasting (62 pr.)		●	●									
				Beech berm	Logs/Sandy gravel	Glaucous gull	Wasting (2 pr.)		●	e									
				Beach face	Sandy gravel	Arctic tern	Nesting (6 pr.)		●	0									
c	0.6	50	>500	Washover fan	Sandy gravel														
				Washover channel	Sandy gravel														
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
D	3.8	200	>500	Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
E	0.6	--	>500	%ss11 estuary, lagoon	—														
				Stable inlet	--														
F'	3.1	500	2	Beach	Mud, sand, or gravel														
				intertidal flat	Mud														
G*	1.3	500	<2	Salt-tolerant wetland	Peat	Wetland			●	*	*	m	m						
				Beach	Sandy gravel	Extensive													
				Intertidal flat	Mud	mud flats			●	0	0	0	0						
						Brant	Staging			o	●	●							
						Shorebirds	Staging			●	*								
H'	4.0	200-500	<2	Beach	Sandy gravel														
				Intertidal flat	Mud														
I'	2.2	10-20	10		Sandy gravel														
J'	3.2	10-30	5	Active low tundra cliff	Sandy gravel														
				Beach	Logs/Sandy gravel														
K'	0.7	--	5	Small estuary, lagoon	--														
				Stable inlet	--														
L'	6.2	50-500	2	Salt-tolerant wetland	Lags	Wetland			●	●	o	*	*						
				Intertidal flat	Mud	Extensive													
						mud flats			●										
						Brant	Staging			o	●	●							
						Shorebirds	Staging			●	*								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			FWYS I CAL RESOURCES			BIOLOG I CAL RESOURCES									HUMAN RESOURCES AND USE					
				Across-Shore Character																
Unit Identifier	Unit Length (km)	Unit Width (m)	Max imum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O		Activity	J	J	A	S	O
M'	4.1	50-200	2-5	Salt-tolerant wet land	Logs	Wet land			●	0	0	0	0		DEW Line site and airstrip (abandoned)					
				Washover fan	Sandy grave l	Brant	Stag ing			o	●	●								
				Beach berm	Sandy grave l	Shorebirds	Stag ing			●	*									
				Beach face	Sandy gravel															
N'	2.9	20-30	10	Multiple smal rivers	—															
				Activelow tundra cliff	Sandy grave 1															
				Beach	Sandy gravel															
Kasegaluk Lagoon	--	--	--	Open water area	- -	Waterfowl	High cone. areas, Stag ing			●	9	9			Beluga whale hunting		●	o		
						Brant	Stag ing			o	●	●			Spotted seal hunt i ng		●	*		
						Shorebirds	Staging			●	m				Fishing	●	*	*	O	
						Phalarope	Staging			o	●	o								
						Arctic tern	Staging			●	9	9								
						Glaucous gull	Stag ing			●	●	●								
						Beluga whale	Summering, Calving(?)			●	O									
						Spotted sea l	Sumner ing			●	o	m								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES ANO USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	3.5	10-20	<3	Multiple small rivers Active low tundra cliff Beach	 Sandy gravel Sandy gravel													
B'	4.4	10	<3	Salt-tolerant wetland Beech	Logs Sandy gravel													
C'	25.6	10-20	<3	Active low tundra cliff Beach	Mud, sand, or gravel Sandy gravel													
D'	1.3	—	<3	Stable inlet														
E'	0.8	20	<3	Salt-tolerant wetland Ephemeral inlet Beech	Legs — Sandy gravel													
Avak Inlet	--	--	--	Open water area	--	Spotted seal	Summering				●	●		Spotted seal hunting Fishing	● ●	● 0	0	0

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PNYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	26.8	10	<3	Active law tundra cliff Beech	Sandy gravel Sandy gravel														
B'	0.2	—	<3	Stable inlet	--														
C'	1.3	10-30	<5	Salt-tolerant wetland	Logs														
Avak Inlet	--	--	--	Open water area	--	Spotted seal	Spring			●	●			Spotted seal hunting Fishing		●	*	*	*

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrata Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	7.6	20-30	>500	Washover fan	Sandy gravel														
				Beach storm berm	Mud, sand, or gravel														
				Beach face	Mud, sand, or gravel														
B	0.7	—	>500	Stable inlet	--									Gel uga whale hunting		●	o		
C	1.0	20-30	>500	Foredune	Sandy gravel														
				Beach face	Sandy gravel														
D	1.5	10-20	>500	Was hover fan	Sandy gravel														
				Beach berm	Sandy gravel														
				Beach face	Sandy grave l														
E'	9.3	10-20	10	Beach	Sandy gravel														
						Common eider	Nesting (350 pr.)		●	●									
						Glaucous gull	Nesting (15 pr.)		●	*									
						Arctic tern	Nesting (20 pr.)		●	*									
F'	1.6	30	10	Multiple small rivers															
				Active low tundra cliff	Sandy grave l														
				Reach	Legs/Sandy gravel														
G'	5.2	30-50	10	Multiple small rivers	—														
				Active low tundra cliff	Sandy gravel														
				Beach	Logs/Sandy grave l														
				Intertidal flat	Sand														
H'	0.7	20-30	10	Sa lt-tolerant wetland	Logs	Wet land			●	●	●	●	●						
				Beech	Logs/Sandy gravel														
Kasegaluk Lagoon	--			Open water area	—	Waterfowl	High cone. areas, Staging			●	*	*		Fishing	●	r	e	o	*
						Brant	Staging		o	●	●								
						Shorebirds	Staging		●	O									
						Phalarope	Staging		o	●	o								
						Arctic tern	Staging		●	O	*								
						Glaucous gull	Staging		●	*	*								
						Beluga whale	Summering, Calving(?)		●	o									
						Spotted sea l	Sumner ing		●	*	*								

CHUKCH I SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYS ICAL RESOURCES			B 10LOG I CAL RESOURCES							HUMAN RESOURCES ANO USE					
Unit Identifier	Unit Length (km)	unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphology cal Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	3.5	30	10	Active low tundra cliff	Mud, sand, or grave l														
				Beach	Logs/Sandy grave l														
				Intertidal flat	Sand														
B'	5.0	39-50	10	Active low tundra cliff	Mud, sand, or gravel														
				Intertidal flat	Sand														
C'	2.5	30-50	10	Salt-to lerant wet l and	Logs	Wet l and			●	●	●	●	●						
				Ephemeral inlet															
				Beach	Sandy gravel														
Kasegaluk Lagoon	--	--	--	Open water area	- -	Waterfowl	High cone. areas, Staging		●	0	0			Fishing	●	●	●	●	
						Brant	Stag i ng		o	●	●								
						Shorebirds	Stag i ng		●	0									
						Phalarope	Stag i ng		o	●	o								
						Arctic tern	Stag i ng		●	*	*								
						Glaucous gull	Staging		●	0	0								
						Beluga whale	S-ring, Calving(?)		●	0									
						Spotted sea l	S - r i n g		●	0	0								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AWD USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	6.7	50-100	>500	Washover fan Beach storm berm Beach face	Sandy gravel Sandy gravel Sandy gravel														
B	1.7	30-50	>500	Reach storm berm Beech face	Sandy gravel Sandy gravel														
C	2.2	30	>500	Washover fan Beach face	Sandy gravel Sandy gravel														
D	1.3	50-200	>500	Foredune Beach storm berm Beach face	Sandy gravel Mud, sand, or gravel Sandy gravel														
E'	1.9	10-30	10	Beach storm berm	Mud, sand, or gravel	Waterfowl	Staging			●	●	o							
F'	0.2	—	10	Small estuary, lagoon Stable Inlet	--- --	Beluga whale	Summering, Calving(?)			●	o								
G'	5.5	10-20	10	Beech	Sandy gravel														
H'	1.3	20-30	10	Salt-tolerant wetland Beach Intertidal flat	Logs Mud, sand, or gravel Sand	Wetland			●	*	e	*	@						
I'	2.0	20-30	10	Beach intertidal flat	Sandy gravel Sand	Wetland			●	●	●	●	●						
Kasegaluk Lagoon	--	--		Open water area	--	Waterfowl	High cone. areas, Staging			●	*	*		Fishing		●	- - -		
						Brant	Staging			o	●	●							
						Shorebirds	Staging			●	0								
						Phalarope	Staging			o	●	o							
						Arctic tern	Staging			●	●	0							
						Glaucous gull	Staging			●	0	0							
						Beluga whale	Summering, Calving(7)			●	0								
						Spotted seal	Sumnering			●	e	*							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (lull)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	5.6	20-50	10	Multiple small rivers Active low tundra cliff Beach Intertidal flat	-- Mud, sand, or grave l Organ its/Sandy gravel Send														
B'	4.7	500-1000	10	Multiple channel delta Sa l t-to lerant wet l and Intertidal flat	Mud, sand, or gravel Legs Sand	Wetland Brant Shorebirds	 Staging Stag i ng		●	● o ●	● ● ●	● ●	●						
Kasegaluk Lagoon	--	--		Open water area	--	Waterfowl Brant Shorebirds Pha l arope Arctic tern Glaucous gu l l Beluga whale Spotted sea l	High conc. areas, Stag i ng Staging Stag i ng Stag ing Stag i ng Stag i ng Summering, Calving(7) Summering			● ● o ● o ● ● ● ●	● ● ● ● ● ● ● o ●	● ● o ● ● ● ● ● ●			Fishing	●	*	9	9	

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AND USE	
Unit Identifier	Unit Length (km)	unit Width [m]	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	14 J J A S O	Activity	J J A S O
A	8.9	30-50	>500	Washover fan Beach storm berm Beach face	Sandy grave l Sandy grave l Sandy grave 1					
B	1.2	50	>500	Foredune Washover fan Washover channe l Beach face	Sand Sandy grave 1 Sandy grave l Sandy grave l					
C	1.8	30-50	>500	Foredune Beach storm berm Beach face	Sand Sandy grave l Sandy grave l					
D	0.5	--	>500	Flecd-tidal delta Stable inlet	--				Spotted seal hunt i ng	● ●
E'	5.1	20-50	10	Beach Intertidal flat	Sandy grave l Sand					
F'	1.3	20-s0	10	Salt-tolerant wet l and Beach	Logs Sandy gravel	Wet l and		● * 9 * *		
G'	5.0	20-50	10	Beech	Sandy grave l					
H'	0.4	2(X)	10	Beach Intertidal flat	Sandy gravel Sand					
Kasega l uk Lagoon	--	--	--	open water area	--	Waterfowl	Hi gh cone. areas, Stag i ng	● m .	Fishing	● - - -
						Brant	Stag i ng	o ● ●		
						Shorab i rds	Stag i ng	● 0		
						Pha l arope	Stag i ng	o ● o		
						Arct i c tern	Stag i ng	● * *		
						Glaucous gu l l	Stag i ng	● o m		
						Beluga whale	Summering, Calving(?)	● 0		
						Spotted sea l	Summering	● O O		

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	6.0	500-1000	10	Multiple channel delta	Sand	Wet land			●	●	●	●	●						
				Salt-tolerant wet land	Logs	Shorebirds				●	●								
				Intertidal flat	Sand														
B'	4.1	20-30	10	Active low tundra cliff	Sandy gravel														
				Beach	Logs/Sandy gravel														
C'	0.6	20-40	10	Foredune	Sand														
D'	1.9	20	10	Active low tundra cliff	Sandy gravel														
				Beach	Logs/Sandy gravel														
Kasegaluk Lagoon	--	--	--	Open water area	--	Waterfowl	High conc. areas, Staging			●	●	●		Fishing	●	0	0	0	
						Brant	Staging			o	●	●							
						Shorebirds	Staging			●	●								
						Phalarope	Staging			o	●	o							
						Arctic tern	Staging			●	●	●							
						Glaucous gull	Staging			●	●	●							
						Beluga whale	Summering, Calving(?)			●	o								
						Spotted seal	Staging			●	●	●							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	2.4	20-30	>500	Beach storm berm Beach face	Sandy gravel Sandy gravel									Spotted seal hunting		●	.		
B	1.8	20-50	>500	Foredune Beach storm berm Beach face	Sandy gravel Sandy gravel Sandy gravel									Spotted seal hunting		●	*		
C	1.1	20-30	>500	Beach	Sandy gravel														
D	5.3	20-30	>500	Washover fan Beach storm berm Beach face	Sandy gravel Sandy gravel Sandy gravel														
E'	2.1	50-300	10	Beach Intertidal flat	Sandy gravel Sand														
F'	3.0	10-20	10	Beach	Sandy gravel														
G'	5.4	10-30	10	Salt-tolerant wetland Intertidal flat	Logs Sand	Wetland Brant Shorebirds	 Staging Staging	●	●	●	●	●	.						
Kasegaluk Lagoon	--	--	--	Open water area	--	Waterfowl Brant Shorebirds Phalarope Arctic tern Glaucous gull Beluga whale Spotted seal	High conc. areas, Staging Staging Staging Staging Staging Staging S-ring, Calving(?) Sumnering		●	0	0			Fishing	●	●	●	●	

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES ANO USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O		Activity	J	J	A	S	O
A'	2.4	20-s0	10	Active low tundra cliff	Mud, sand, or gravel															
				Beach	Organ i es/Sandy grave l															
B'	0.7	29-50	10	Single channel river	--	Wet l and			●											
				Smsl l estuary, lagoon	--															
				Stable inlet	--															
				Beach	Logs/Sandy grave l															
C'	4.5	I 0-20	10	Active low tundra c1 iff	Mud, sand, or gravel															
				Beach	Logs/Sandy gravel															
D'	2.2	I 00-500	10	Active low tundra cliff	Mud, sand, or grave l	Wet l and			●	e	m	-	m							
				Intertidal flat	Organ i es/Sand	Shorebirds	Stag i ng			●	●									
						Water f owl	Staging			●	m	.								
E'	I .4	5-1o	10	Active low tundra cliff	Sandy gravel															
				Beech	Sandy gravel															
F'	I.I	20-30	10	Active low tundra cliff	Sandy grave 1															
				Beach	Sandy gravel															
				Intertidal flat	Sand															
G'	I .0	40-60	10	Single channel river	- -	Wet land			●	e	e	*	*							
				Multiple channel delta	- -															
				Intertidal flat	Sand															
Kasegal uk Lagoon	--	--	--	Open water area	- -	Waterfowl	High cone. areas, Stag i ng			●	●	●			Spotted sea l hunting	●	.			
															Fishing	●	o	m	.	
						Brant	Stag i ng			o	●	●								
						Shorebi rds	Staging			●	*									
						Phal arope	Staging			o	●	o								
						Arctic tern	Staging			●	0	0								
						Gl aucous gull	Staging			●	●	●								
						Beluga whale	Summering, Calving(?)			●	O									
						Spotted sea l	Sumner i ng			●	e	*								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	11.2	20-30	>500	Washover fan	Sandy gravel														
				Beech storm berm	Sandy gravel														
				Beach face	Sandy gravel														
B	2.3	20-30	>500	Foredune	Sandy gravel														
				Beech face	Sandy gravel														
C'	3.5	20-50	10	Salt-tolerant wetland	Logs	Wetland		●	9	0	0	0							
				Intertidal flat	Sand	Common eider	Nesting (22 pr.)	●	0										
						Arctic tern	Nesting (16 pr.)	●	*										
						Brant	Nesting (4 pr.)	●	*										
D'	10.0	10-20	10	Beach	Sandy gravel														
Kasegaluk Lagoon	--	--	--	Open water area		Waterfowl	High cane. areas, Staging		●	O	*			Fishing	●	●	●	●	
						Brant	Staging		o	●	●								
						Shorebirds	Staging		●	*									
						Phalarope	Staging		o	●	o								
						Arctic tern	Staging		●	0	s								
						Glaucous gull	Staging		●	*	*								
						Beluga whale	Summering, Calving(?)		●	0									
						Spotted seal	S-ring		●	O	O								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
				Across-Shore Character														
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A'	5.8	20-00	7	Active low tundra cliff Beach	Sandy gravel Organ i es/Sandy grave l									Waterfowl hunt i ng	●	●			
B'	1.3	100-200	7	Active low tundra cliff Beach berm Sand	Sandy gravel Sandy grave l Organ i es/Sand									Waterfow l hunting	●	s			
C'	0.6	50-100	7	Active low tundra cliff Beach Intertidal flat	Sandy grave l Sandy gravel Mud, Sand									Waterfow l hunting	●	●			
D'	4.2	10	7	Multiple small rivers Active low tundra cl iff Beach	 Sandy gravel Organ its/Sandy gravel									Waterfowl hunt l ng	●	*			
E'	0.8	50-100	7	Single channel river Multiple channel delta Active low tundra cl i ff Beach Intertidal flat	- - Sand Mud, sand, or gravel Organ i es/Sandy grave l Sand									Waterf ow l hunting	●	●			
Kasega l uk Lagoon	--	--	--	Open water area	--	Waterfowl	High cone. areas, Stag i ng			●	●	●		Fishing	●	*	*	O	
						Brant	Stag i ng			o	●	●							
						Shorebirds	Staging			●	●								
						Phalarope	Stag i ng			o	●	o							
						Arct i c tern	Staging			●	●	●							
						G laucous gu l l	Stag i ng			●	●	●							
						Beluga whale	Summering, Calving(?)			●	o								
						Spotted sea l	Summering			●	●	●							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE				
Unit Identifier	Unit Length (lull)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	0.3	1000	>500	Fled-tidal delta	Sand	Spotted seal	Summering			●	●			Spotted seal hunting		●	●		
				Stable inlet	--	Beluga whale	Summering			●	o			Beluga whale hunting		●	o		
B	2.7	30-100	>500	Washover fan	Sandy gravel									Waterfowl hunting		●	●		
				Beach storm berm	Sandy gravel									Egg gathering		●	●		
				Beech face	Sandy gravel														
c	6.7	50-100	>500	Washover fan	Sandy gravel									Waterfowl hunting		●	●		
				Foredune	Sandy gravel									Egg gathering		●	o		
				Beach berm	Sandy gravel														
				Beach face	Mud, sand, or gravel														
D'	9.0	500	5	Beach	Sandy gravel	Common eider	Nesting (25 pr.)		●	●									
				Intertidal flat	Sand	Glaucous gull	Nesting (4 pr.)		●	●									
						Arctic tern	Nesting (54 pr.)		●	●									
						Brent	Nesting (4 pr.)		●	●									
						Oldsquaw	Nesting (6 pr.)		●	●									
Kasegaluk Lagoon	--	--	--	Open water area	--	Waterfowl	High cone. areas, Staging			●	●	o		Spotted seal hunting		●	o		
														Beluga whale hunting		●	o		
						Brant	Staging			o	●	●							
						Shorebirds	Staging			●	*								
						Pharalarepa	Staging			o	●	o							
						Arctic tern	Staging			●	●	●							
						Glaucous gull	Staging			●	*	*							
						Beluga whale	Summering, Calving(?)			●	o								
						Spotted seal	S-ring			●	*	*							

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O		Activity	J	J	A	S	O
A	6.7	200	>500	Small pond(s)		Common eider	Nesting (no. prs. unknown)		●	e					Waterfowl hunting	●	●			
				Salt-tolerant wetland	Peat	Arctic tern	Nesting (no. prs. unknown)		●	e					Egg gathering	●	9			
				Washover fan	Sandy gravel										seasonally occupied village, Pt. Lay	●	●	●	●	●
				Foredune	Sandy gravel															
				Beach storm berm	Sandy gravel															
				Beach face	Sandy gravel															
B	8.0	200	>500	Foredune	Sandy gravel	Common eider	Nesting (no. prs. unknown)		●	*					Waterfowl hunting	●	●			
				Beach berm	Sandy gravel	Arctic tern	Nesting (no. prs. unknown)		●	*					Egg gathering	●	0			
				Beech face	Sandy gravel										Seasonally occupied village, Pt. Lay	●	0	*	*	*
c	0.2	--	>500	Stable inlet	--										Beluga whale hunting		●	o		
															Spotted seal hunting		●	O		
D'	6.6	10-20	<7	Beach	Sandy gravel															
E'	1.3	10-20	5	Salt-tolerant wetland	Peat	Wetland			●	●	●	●	●							
				Ephemeral inlet																
				Beach	Sandy gravel															
F'	1.3	20-30	2	Salt-tolerant wetland	Peat	Wetland			●	●	●	●	●							
				Active high rock cliff	Sedimentary bedrock															
				Ephemeral inlet	—															
				Beach	Sandy gravel															
G'	1.7	10-30	5	Salt-tolerant wetland	Peat	Wetland			●	●	●	●	●							
				Beach	Sandy gravel	Shorebirds	Staging			●	●									
H'	9.8	50-1000	5	Multiple channel delta	--	Waterfowl	Migration			●	m	m			Waterfowl hunting	●	●			
				Intertidal flat	Sand										Fishing	●	●	●	●	
I'	3.3	10-50	7	Passive low tundra cliff	Sandy gravel										Waterfowl hunting	●	●			
				Beach	Organics/Sandy gravel										Community of Pt. Lay	●	●	.	●	●
															DEW Line station and airstrip	●	●	●	●	●
Kasegaluk Lagoon	--	--	--	Open water area		Waterfowl	High cone. areas, Staging			●	●	●			Fishing	●	*	*	W	
						Brant	Staging			o	●	●								
						Shorebirds	Staging			●	*									
						Phalarope	Staging			o	●	o								
						Arctic tern	Staging			●	*	9								
						Glaucous gull	Staging			●	O	*								
						Beluga whale	Summering, Calving(?)			●	0									

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYS I CAL RESOURCES			B 10LOG I CAL RESOURCES							HUMAN RESOURCES AND USE					
unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	6.7	20-30	>500	Washover fan Beach storm berm Beach face	Sandy grave I Sandy gravel Sandy grave I									Egg gather i ng	●	0			
B'	6.7	10-20	5	Beach	Sandy gravel														
C'	7.7	10-30	5	Multiple small rivers Active low tundra cl iff Beach	. Sandy gravei Organ i cs									Waterf ow i hunting	●	.			
0'	3.5	5-1o	5	Active low tundra cl iff Beach	Sandy grave I Sandy grave i									Waterfow i hunt i ng	●	●			
E'	2.6	I 0-40	5	Active low tundra cl iff Beach	Sandy gravel Logs/Sandy gravel									Waterfowl hunt i ng	●	.			
F'	I .0	50- IOD	5	Active lox tundra c1 iff Beach Intertidal flat	Sandy grave I Organ i es/Sandy gravel Sand														
G'	I.I	20-30	5	Active low tundra cliff Beach	Sandy gravel Sandy gravel														
Kasegaluk Lagoon	--	--	--	Open water area	--	Waterfowl	High conc. areas, Stag ing			●	●	●		Fishing	●	●	●	●	
						Brant	Stag i ng			o	●	●							
						Shorebirds	Stag i ng			●	●								
						Pha l arope	Staging			o	●	o							
						Arctic tern	Stag i ng			●	●	●							
						Glaucous gull	Stag i ng			●	●	●							
						Beluga whale	Summering, Calving(7)			●	o								
						Spotted sea l	Summering			●	●	●							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O		Activity	J	J	A	S	O
A	0.4	--	>500	Flood-tidal delta Stable inlet		Spotted seal Beluga whale	Summering S-ring			●	●	●			Spotted seal hunting Beluga whale hunting	●	●			
B	4.7	20-150	>500	Washover fan Beach storm berm Beach face	Sandy gravel Sandy gravel Sandy gravel										Egg gathering	●	●			
c	2.2	20-30	>500	Washover fan Washover channel Foredune Beech berm Beach face	Sandy gravel Sandy gravel Sand Sandy gravel Sandy gravel										Egg gathering	●	9			
D	2.3	20-30	>500	Washover fan Washover channel Foredune Beach face	Sandy gravel Sandy gravel Sand Sandy gravel															
E'	7.7	10-20	3	Beach	Sandy gravel															
F'	2.3	10-20	3	Salt-tolerant wetland Beach	Peat Sandy gravel	Wetland		●	m	*	o		-							
G'	6.2	30-500	3	Multiple channel delta Intertidal flat	-- Sand	Wetland Brant Shorebirds	 Staging Staging	●	*	0	0	0								
H'	1.2	100-500	3	Intertidal flat Beach berm Intertidal flat	Sand Gravelly sand Sand										Waterfowl hunting	●	.			
1'	0.7	20	3	Active low tundra cliff Beach	Sandy gravel Sandy gravel															
Kasegaluk Lagoon	--	--	--	open water area		Waterfowl Brant Shorebirds Phalarope Arctic tern Glaucous gull Beluga whale Spotted seal	High cone. areas, Staging Staging Staging Staging Staging Staging Summering, Calving(?) Summering			●	0	0			Fishing	●	m	m	o	

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	11.3	50-200	>500	Salt-tolerant wet I and	Peat														
				Washover fan	Sandy gravel														
				Foredune	Sandy gravel														
				Beach face	Sandy gravel														
B'	5.3	20	B	Beach	Sandy grave I														
C'	6. I	5-20	5	Salt-tolerant wet I and	Peat	Wet I and			●	m	w	o	*						
						Waterfowl	Nesting (10 pr.)		●	*									
						Arctic tern	Nesting (28 pr.)		●	*									
				Intertidal flat	Mud, Sand	Brant	Staging			o	●	●							
						Shorebirds	Stag i ng			●	e								
D'	4.0	15-20	B	Active low tundra cl iff	Sandy gravel														
				Active high tundra cliff	Logs/Sandy grave I														
				Beach face	Sandy gravel														
E'	0.5	20-50	5	Single channel river	- -														
				Salt-tolerant wet I and	Logs/Peat														
				Beech storm berm	Legs/Sandy gravel														
				Beach face	Sandy grave I														
F'	I.9	20	3	Active low tundra cliff	Sandy gravel														
				Beach	Sandy grave I														
G'	I.3	50-100	5	Single channel river															
				Sa I t-tolerant wet 1 and	Peat	Wet I and			●	●	●	●	●						
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
H'	5.2	10-20	B	Multiple smell rivers	- -														
				Active low tundra c1 iff	Sandy gravel														
				Beech	Logs/Sandy grave I														
				Beach	Sandy grave I														
1'	0.7	30-60	7	Sma I I estuary, I agoon	--														
				Ephemeral in let	--														
				Ebb-t i da I da I ta	Mud, Sand														
J'	0.7	20-30	7	Passive low tundra c1 i ff	Sandy grave I														
				Foredune	Sand														
				Beach face	Sand														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES ANO USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
Kasegaluk Lagoon	--	—	--	Open water area		Waterfowl	High conc. areas, Staging		●	0	0								
						Brant	Staging		o	●	●								
						Shorebirds	Staging		●	*									
						Phalarope	Staging		o	●	o								
						Arctic tern	Staging		●	*	*								
						Glaucous gull	Staging		●	O	9								
						Beluga whale	Summering, Calving(?)		●	o									
						Spotted seal	Sumnering		●	0	0								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES								HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	14	J	J	A	S	O	Activity	J	J	A	S	O
A	2.6	200	>500	Salt-tolerant wetland	Peat	Wetland			●	●	●	●	●	Fishing	●	*	*	*	
				Foredune	Sandy gravel	Brant	Staging			o	●	●							
				Beach face	Sandy gravel	Shorebirds	staging			●	*								
B	0.9	--	>500	Ephemeral Inlet	--	Spotted seal	Spring			●	*	m		Spotted seal hunting		●	*		
				Stable inlet		Beluga whale	Summering			●	o			Beluga whale hunting		●	o		
														Fishing	●	0	-	0	
c	6.3	50-500	>500	Washover fan	Sandy gravel									Fishing	●	0	0	0	
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
D	1.3	20-50	>500	Salt-tolerant wetland	Peat														
				Washover fan	Mud, sand, or gravel														
				Weshover channel	Mud, sand, or gravel														
				Foredune	Sand														
				Beach face	Sandy gravel														
E'	6.5	5-20	3	Salt-tolerant wetland	Peat	Wetland			●	●	●	●	●						
				Intertidal flat	Mud, Sand	Shorebirds	Staging			●	●								
F'	7.0	50-500	3	Beach	Sandy gravel	Common eider	Nesting (6 pr.)		●	-									
				Intertidal flat	Mud, Sand	Arctic tern	Nesting (2 pr.)		●	●									
G'	2.5	30-50	3	Salt-tolerant wetland	Peat														
				Foredune	Sandy gravel														
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
H'	0.3	30-50	3	Small pond(s)	--														
				Active high rock cliff	--														
				Beach	Mud, sand, or gravel														
I'	1.5	30	3	Active low tundra cliff	Sandy gravel														
				Beach	Sandy gravel														

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity		J	J	A	S	O
J'	1.0	30-50	3	Passive low tundra cliff Salt-tolerant wetland Beach	Sandy gravel Peat Sandy gravel	Wetland			9	9	9	.	.							
K'	0.7	20-50	3	Single channel river Small estuary, lagoon Ephemeral inlet Flood-tidal delta	-- — -- Mud, Sand	Shorebirds	Staging			●	●									
L'	2.6	20-30	3	Active low tundra cliff Beach storm berm Beach face	Sandy gravel Logs/Sandy gravel Sandy gravel															
M'	1.1	20-50	3	Salt-tolerant wetland Multiple channel delta Beach	Peat Sand Sand	Wetland Shorebirds	 Staging		●		m	*	*							
N'	1.9	10	3	Multiple small rivers Active low tundra cliff Beach	— Sandy gravel Sandy gravel															
Kasegaluk Lagoon	--	--	--	Open water area	--	Waterfowl	High cone. areas, Staging			●	*	*			Spotted seal Fishing	hunting	●	●		
						Brant	Staging			o	●	●					●	●	●	●
						Shorebirds	Staging			●	O									
						Phalarope	Staging			o	●	o								
						Arctic tern	Staging			●	*	9								
						Glaucous gull	Staging			●	o	b								
						Beluga whale	Summering, Calving(?)			●	o									
						Spotted seal	Summering			●	9	*								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES								HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	F	M	J	J	A	S	O	Activity	J	J	A	S	O
A	11.4	20-50	>500	Salt-tolerant wetland	Peat															
				Washover fan	Sandy gravel															
				Washover channel	Sandy gravel															
				Foredune	Sandy gravel															
				Beach storm berm	Sandy gravel															
				Beach flats	Sandy gravel															
B'	9.6	20-600	2	Salt-tolerant wetland	Peat	Wetland				●	●	●	●	●						
				Intertidal flat	Mud, Sand	Waterfowl	Staging				●	●	●							
						Brant	Staging				o	●	●							
						Shorebirds	Staging				●	●								
C'	1.5	30	2	Salt-tolerant wetland	Peat	Wetland				●										
				Beach	Sandy gravel	Waterfowl	Staging				●	*	e							
						Brant	Staging				o	●	●							
						Shorebirds	Staging				●	o								
o'	1.3	30-50	2	Multiple small rivers	--															
				Active low tundra cliff	Sandy gravel															
				Beach	Logs/Sandy gravel															
				Intertidal flat	Mud, Sand															
E'	1.0	20-30	2	Seltolerant wetland	Peat	Wetland				●	●	●	●	●						
				Small pond(s)																
				Ephemeral inlet	--															
F'	4.0	20	2	Active low tundra cliff	Sandy gravel															
				Beach	Sandy gravel															
G'	0.3	10-20	2	Salt-tolerant wetland	Peat					●	●	●	●	●						
				Beach	Organics/Sandy gravel															
H'	1.0	20-30	2	Single channel river																
				Small estuary, lagoon																
				Stable inlet	--															
				Beach	Sandy gravel															
I'	0.9	30-50	2	Small estuary, lagoon		Wetland				●	●	●	●	●						
				Ephemeral inlet																
				Ebb-tidaldelta	Sandy gravel															

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN REsouRcES AND USE					
Unit Identifier	Unit Length (hm)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
J'	0.6	10-20	2	Salt-tolerant wetland	Peat														
				Foredune	Sandy gravel														
				Beach	Sandy gravel														
K'	2.9	10-20	2	Multiple smell rivers	--														
				Active low tundra cliff	Sandy gravel														
				Beach	Sandy gravel														
Kasegaluk Lagoon	--	—	—	Dpan water area	--	Water fowl	High cone. areas, Staging			●	●	●		Fishing	●	●	●	●	
						Brant	Staging			○	●	●							
						Shorebirds	Staging			●	●								
						Phalarope	Staging			○	●	○							
						Arctic tern	Staging			●	●	●							
						Glaucous gull	Staging			●	●	●							
						Beluga whale	Summering, Calving(?)			●	○								
						Spotted seal	Summering			●	●	●							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUHAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	1.0	20-30	>500	Washover fan	Sandy gravel														
				Washover channel	Sandy gravel														
				Foredune	Sandy gravel														
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
B	3.1	50	>500	Small estuary, lagoon		Wetland			o	*	*	e	*						
				Salt-tolerant wetland	Peat														
				Washover fan	Sandy gravel														
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
c	0.9	30	>500	Salt-tolerant wetland	Peat														
				Foredune	Sandy gravel														
				Beach face	Sandy gravel														
D	1.9	30	>500	Active low tundra cliff	Sandy gravel														
				Beach	Sandy gravel														
E	0.7	30-50	>500	Multiple small rivers	--														
				Ephemeral inlet	--														
				Foredune	Sandy gravel														
				Beach face	Sandy gravel														
F'	1.1	20-50	2	Multiple small rivers		Wetland		●	●	●	●	●							
				Active low tundra cliff	Sandy gravel														
				Beach	Sandy gravel														
				Intertidal flat	Mud, Sand														
G'	0.6	5-1o	2	Active low tundra cliff	Sandy gravel														
				Beach	Sandy gravel														
H'	1.0	1o-1oo	2	Salt-tolerant wetland	Peat	Wetland		●	●	●	●	●							
				Intertidal flat	Mud, Sand														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE			
				Across-Shore Character												
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	8.0	20	>500	Multiple small rivers	--														
				Ephemeral inlet	Logs/Mud, sand, or gravel														
				Beach	Sandy gravel														
B	2.7	20-30	Moo	Small estuary, lagoon		Wetland			●	*	m	*	m						
				Washover fan	Sandy gravel	Arctic tern	Nesting (10 pr.)		●	m									
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
C	0.9	20-40	>500	Single channel river	--	Wetland			●	●	●	●	●						
				Salt-tolerant wetland	Peat	Shorebirds	Staging			●	●								
				Ephemeral inlet	--														
				Foredune	Sandy gravel														
				Beach face	Sandy gravel														
	1.2	20-40	>500	Active low tundra cliff	Sandy gravel														
				Beach	Gravelly sand														

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CHUKCH I SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSI CAL RESOURCES			BIOLOG I CAL RESOURCES							HUMAN RESOURCES AWD USE					
Unit Idenlifier	Unit Length (km)	Unit Width (m)	Max imum Wave Fetch (km)	Across-Shore Character: Morphologica I Components	Across-Shore Character: Substrate 1ype	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	9.5	2040	>500	Active low tundra cli f Beach	Sandy gravel Sandy grave I														
B	2.8	2040	>500	Act i ve high tundra cl f f Beach	Sandy gravel Sandy grave I														

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CHUKCHI SEA COASTAL RESOURCES TABLE

WIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	4.3	10-20	>5D0	Multiple small rivers															
				Ephemera l in l et	Gravel l y sand														
				Beach	Gravel l y sand														
B	5.6	8 5-30	>500	Multiple small rivers	--									DEW Line site and airstrip (abandoned)					
				Active high tundra cliff	Sandy gravel														
				bath	Grave l lv sand														
C	0.4	30	>5W	Smal l estuary, lagoon															
				Foredune	Sandy gravel														
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	8. I	30-s0	>500	Multiple small rivers	—														
				Active low tundra cliff	Sandy gravel														
				Beech face	Gravel lv sand														
B	0.5	10-20	>500	Active high tundra cliff	Sandy gravel														
				Reach f ace	Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES ANO USE					
Unit Identifier	Unit Length (lull)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	2.5	30	>500	Small estuary, lagoon	- -														
				Ephemeral Inlet	—														
				Beach storm berm	Sandy gravel														
				Beach f ace	Sandy gravel														
B	0.4	30-50	>5W	Single channel river	- -														
				Active low tundra cliff	Sandy gravel														
				Beach	Sandy gravel														
C	I.I	30-50	>500	Small estuary, lagoon	- -														
				Beach	Sand														
				Beach storm berm	Sandy grave I														
				Beach face	Sandy gravel														
0	5. I	20-50	>500	Active high tundra cliff	Sandy grave 1														
				Beach	Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYS I CAL REsoURCES			BIOLOGI CAL RESOURCES							HUMAN RESOURCES ANO USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	2.9	I 0-50	>500	Single channel river Active low tundra cl iff Beach	— Sandy gravel Gravel ly sand													
B	0.5	0-5	>500	Active high tundra cl iff	Sandy gravel													
c	I .0	10-20	>500	Active low tundra cliff Beach	Sandy gravel Gravel ly sand													
D	4.2	50	>500	Smal I estuary, I agoon Washover fan Beach storm berm Beach f em	— Gravel ly sand Gravel ly sand Sandy gravel													

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
				Across-Shore Character														
Unit Identifier	Unit Length (lull)	Unit Width (m)	Maximum Have Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	5.3	2040	>500	Multiple small rivers Active low tundra cliff Beach	-- Sandy gravel Gravel														
B	0.7	20-S0	>S00	Single channel river Multiple channel delta Ephemeral inlet Beach	-- Mud, sand, or gravel Gravelly sand	Waterfowl Shorebirds	Staging Staging			•	•	•							
C	0.7	I 0-20	>500	Active high tundra cliff Beach	Sandy gravel Gravel														
D	1.6	5-20	>500	Multiple small rivers Active high tundra cliff Beach	 Sandy gravel Gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUHAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	1.7	5-20	>500	Single channel river Active high rock cliff Beach	— Sedimentary bedrock Gravel														
B	3.2	10–20	>500	Multiple small rivers Active low tundra c1 iff Beach	 Sandy gravel Gravel I y sand														
C	0.7	20-30	>500	Single channel river Ephemeral inlet Beach	 — Sandy grave I	Shorebirds Glaucous gul I Arctic tern	Stag ing Staging Stag i ng			•	•								
D	1.1	10-30	>500	Active low tundra cliff Beach	Sandy gravel Gravel ly sand														
E	1.3	0-5	>500	Active high rock cliff	Sedimentary bedrock														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	7.0	0-5	>500	Multiple small rivers Active high rock cliff	Sedimentary bedrock	Pelagic cormorant	Nesting (33 pr.)	●	.	0	0	0							
						Tufted puffin	Nesting (3 pr.)	●	*	O	,	*							
B	I .8	5-20	>500	Multiple small rivers Active high rack cliff Beach	Sedimentary bedrock Grave I														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	7.1	0-5	>500	Active high rock cliff	sedimentary bedrock	Glaucous gull	Nesting (40 pr.)	•	o	e	o	e							
						Black guillemot	Nesting (9 pr.)	•	•	•	•	•							
B	0.6	30-50	>500	Single channel river	—														
				Active low tundra cliff	"Sandy gravel														
				Beach storm harm	Gravel														
				Beach face	Gravel														
c	0.3	20-50	>500	Single channel river	—														
				Beach	Gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE					
				Across-Shore Character																
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity		M	J	J	A	S	O	Activity	J	J	A	S	O
A	6.7	0-5	>500	Active high rock cliff	Sedimentary bedrock	Glaucous gull	Nesting	(40 pr.)	.	.	●	.	●							
						Black guillemot	Nesting	(9 pr.)	●	●	●	●	●							
B	0.8	20-40	>500	Active low tundra cliff Beach	Sandy gravel Gravelly sand															

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CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	7.2	50	>500	Small estuary, lagoon	--	Wetland			●	*	*	*	O						
				Ephemeral inlet	--	Shorebirds	Staging			●	0								
				Beach storm berm	Gravelly sand														
				Beach face	Gravelly sand														
B	1.4	25	>500	Active low tundra cliff	Sandy gravel														
				bath	Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AND USE	
				Across-Shore Character						
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M J J A S O	Activity	J J A S O
A	1.3	SO-50	>500	Single channel river	--					
				Salt-tolerant wetland	Peat					
				Beach	Sandy gravel					
B	1.6	40-60	>500	Active low tundra cliff	Sandy gravel					
				Beach	Sandy gravel					
C	3.0	30	>500	Small estuary, lagoon	- -					
				Ephemeral inlet	- -					
				Beach storm berm	Gravelly sand					
				Beach face	Gravelly sand					
D	2.3	30	>500	Passive high tundra cliff	Sandy gravel / Sedimentary bedrock					
				Foredune	Sand					
				Beach storm berm	Sandy gravel					
				Beach face	Sandy gravel					

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
				Across-Shore Character														
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Morphological Components	Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	2.6	10-20	>500	Active high reck cliff Beach	Sedimentary bedrock Grave l														
B	4.6	50-70	>500	Multiple small rivers Active low tundra cliff Beach	-- Sandy grave l Grave l									DEW Line station and airstrip	.	•	•	.	•

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	5.8	20-30	>500	Active high rock cliff Beach	sedimentary bedrock Gravel									Egg gathering	●	●			
B	5.5	0-50	>500	Active high reck cliff	Sedimentary bedrock	Saabird colony	Nesting	●	O	*	*	*		Egg gathering	●	*			
						Common murre	70,000 pr.												
						Thick-billed murre	S0,000 pr.												
						Black-legged kittiwake	25,000 pr.												
						Horned puffin	1,450 pr.												
						Black guillemot	170 pr.												
						Pelagic cormorant	78 pr.												
						Glaucous gull	50 pr.												
						Tufted puffin	20 pr.												
C	0.7	30-50	>500	Single channel river Active low tundra cliff Beach	-- Sandy gravel Gravel									Egg gathering	●	●			

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AND USE	
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M J J A S O	Activity	J J A S O
A	7.7	I 0-20	>300	Active high rock cliff	Sedimentary bedrock	Seabird Colony at Noyahlik Peak	Nesting	● e w e e	Egg gathering	9 0
				Beach	Gravel	Horned puffin	35 pr.			
						Murre	20 pr.			
						Tufted puffin	15 pr.			
						Pelagic cormorant	9 pr.			
						Seabird colony at Cape Lewis	Nesting			
						Murres	25,000 pr.			
						Black legged kittiwakes	3,000 pr.			
						Horned puffin	300 pr.			
						Pelagic cormorant	60 pr.			
						Glaucous gull	50 pr.			
						Black guillemot	25 pr.			
						Tufted puffin	4 pr.			
B	I.I	30-60	>500	Single channel river	--				Egg gathering	● e
				Active low tundra c1 iff	Sandy grave I					
				Beech	Gravel					
C	I.2	30-50	>500	Single channel river					Egg gathering	● ●
				Multiple channel delta	--					
				Beach storm berm	Gravel					
				Beech face	Grave I					

CHUKCH I SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYS I CAL RESOURCES			BIOLOGICAL RESOURCES			HUMAN RESOURCES AND USE	
Unit Identifier	Unit Length (km)	Unit Width (m)	maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M J J A S O	Activity	J J A S O
A	4.5	20-30	>500	Active high rock cliff Beach	Sedimentary bedrock Grave I	Seabird colony Murres	Nest i ng 20 pr.	● 9 0 9 e	Egg gather i ng	● *
B	4.6	50-70	>50D	Passive low tundra c1 iff Active low tundra cliff Beach	-- Mud, sand, or gravel Gravel				Egg gather i ng	● o
C	I.I	0-5	>500	Active high rack cliff	Sedimentary bedrock	Seabird Colony at Cape Dyer Pelagic cormorant Glaucous gul I Horned puff in Tufted puffin	Nesting 26 pr. 48 pr. 24 pr. 4 pr.	● m * * *	Egg gathering	● ●
0	0.5	20-50	>500	Single channel river Beach storm berm Beach face	— Grave I Gravel					

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resources	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	12	5-30	>500	Active high rock cliff Beach	Sedimentary bedrock Gravel	Seabird colony Pelagic cormorant Glaucous gull	Nesting 100 pr. 40 pr.	●	e	e	8	m							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES ANO USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	4.8	20-s0	>500	Active high reck cliff Beach	Sedimentary bedrock Gravel									Fishing	●	●	●		
B	0.6	50-50	>500	Single channel river Multiple channel delta Beach	-- - - Gravel									Fishing	●	0	0		
C	I.I	30-50	>500	Single channel river Active loss tundra c1 lff Beach	-- Sandy gravel Grave I									Fishing	●	●	●		

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE				
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	7.5	20-30	>500	Washover fan Beech storm berm Beach face	Gravelly sand Gravelly sand Gravelly sand									Fishing	●	e	m		
B	0.2	--	>500	Stable inlet		Beluga whale	Sumnering			●	o			Beluga whale hunting		●	o		
C'	7.6	10-20	1.5	Beach	Gravelly sand	Mudflats		●	●	●	●	●	●	Fishing	●	e	*		
D'	9.5	0–10	i .5	Active low tundra cliff	Peat/ Sandy gravel									Fishing	●	*	9		
"	0.5	200	1	Active low tundra cliff Intertidal flat	Peat/Sandy gravel Mud, Sand	Mudflats		●											
F'	2.3	500	3	Single channel river Multiple channel delta intertidal flat	— -- Mud/Sand	Mudflats		●		0	0	-	0	0					
Marryatt Inlet	—	--	--	Open water	--	Beluga whale Waterfowl Shorebirds	S-ring Migration, Staging Migration, Staging		●	●	o 0	0	0	Fishing Beluga whale hunting	●	●	● o		

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	3.9	30-100	>500	Washover fan	Gravelly sand									Waterfowl hunting	●				●
				Beach storm berm	Gravelly sand									Fishing	●	●	●		
				Beach face	Gravelly sand														
B	4.2	20-30	>500	Active low tundra cliff	Sandy gravel									Waterfowl hunting	●				●
				Beach	Gravel									Fishing	●	m	*		
c	0.9	30-50	>500	Foredune	Sandy gravel									Waterfowl hunting			●	●	
				Beach	Gravelly sand									Fishing	●	●	●		
D	3.0	100	300	Foredune	Sandy gravel									Fishing	●	0	0		
				Beach storm berm	Gravelly sand														
				Beach face	Gravelly sand														
E	5.7	50-80	300	Small estuary, lagoon															
				Washover fan	Sandy gravel														
				Washover channel	Sandy gravel														
				Foredune	Sandy gravel														
				Beach storm berm	Logs/Gravelly sand														
				Beach face	Gravelly sand														
F'	7.0	10-20	7	Beach	Sandy gravel	Mudflats		●											
G'	4.8	10-20	7	Active low tundra cliff	Sandy gravel	Mudflats		●											
				Beach	Sandy gravel														
H'	5.0	20	5	Beach berm	Sand	Mudflats		●	●	●	●	●	●						
				Beach face	Sand														
I'	8.2	5	5	Active low tundra cliff	Mud, sand, or gravel														
Marryatt Inlet	—	--		open water		Beluga whale	Sumnering			●	o			Fishing	●	0	0		
						Waterfowl	Migration, Staging		●	●	●	●		Beluga whale hunting		●	0		
						Shorebirds	Migration, Staging			●	*								

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYS I CAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Max imum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	3.7	30-I 00	>500	Washover fan	Grave I I y sand									Fishing	●	*	*		
				Beach storm bat-m	Grave I I y sand														
				Beach face	Grave I I y sand														
B	10.0	50-300	300-500	Foredune	Sandy grave I									Fishing	●	*	*		
				Beach storm harm	Sandy grave I									Historical village	●	*	*	*	*
				Beach face	Sandy grave I									Community of Point Hope	●	e	m	o	o
C'	5.5	20-50	10	Beach	Sandy grave I	Mudflats		●	*	*	.	*	*						
				Mudflats	Sand, mud	Shorebirds	Migration, Staging			●	9								
						Waterfowl	Migration, Staging		●	●	●	●							

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES									HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	7.6	30-60	300	Small estuary, lagoon										Fishing	●	●	●		
				Washover fan	Gravelly sand									Waterfowl hunting		●		●	
				Beach storm berm	Gravelly sand														
				Beach face	Gravelly sand														
B	1.6	20-30	300	Salt-tolerant wetland	Peat									Fishing	●	*	*		
				Foredune	Sandy gravel									Waterfowl hunting	●			●	
				Beach storm berm	Sandy gravel														
				Beach face	Sandy gravel														
C'	12.5	10	5	Active low tundra cliff	Sandy gravel	Mudflats		●	●	●	●	●	●						
						Shorebirds	Migration, Staging			●	-								
						Waterfowl	Migration, Staging		●	●	●	●							
D'	8.2	10	5	Beach	Sandy gravel														

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES										HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	8.2	50	300	Small estuary, lagoon										Fishing	●	0	0		
				Washover fan	Gravelly sand									Waterfowl hunting	●			●	
				Beach storm berm	Gravelly sand														
				Beach face	Gravelly sand														
B	1.3	20-30	300	Active low tundra cliff	Sandy gravel									Fishing	●	●	●		
				Beach	Sandy gravel									Waterfowl hunting	●			●	
c'	14.0	10	9	Active low tundra cliff	Sandy gravel	Mudflats		●	●	●	●	●	●						
						Shorebirds	Migration, Staging			●	0								
						Waterfowl	Migration, Staging		●	●	●	●							
D'	8.2	10	9	Beach	Sandy gravel														

CHUKCHI SEA COASTAL RESOURCES TABLE

UNIT DIMENSIONS			PHYSICAL RESOURCES			BIOLOGICAL RESOURCES							HUMAN RESOURCES AND USE					
Unit Identifier	Unit Length (km)	Unit Width (m)	Maximum Wave Fetch (km)	Across-Shore Character: Morphological Components	Across-Shore Character: Substrate Type	Resource	Activity	M	J	J	A	S	O	Activity	J	J	A	S	O
A	7.0	70-100	SOD	Small estuary, lagoon	--									Waterfowl hunting	●	●			
				Washover fan	Gravel lv sand									Fishing	●	.	*		
				Beach storm berm	Gravel lv sand														
				Beach face	Gravel lv sand														
	1.2	50	300	Salt-tolerant wetland	Peat									Waterfowl hunting	●	*			
				Beach storm berm	Gravel lv sand									Fishing	●	*	*		
				Beach face	Gravel														
C	1.9	20-40	300	Multiple small rivers										Waterfowl hunting	●	●			
				Active low tundra cliff	Sandy gravel														
				Beach	Gravel lv sand														
D	1.8	0-1o	300	Active high rock cliff	Sedimentary bedrock	Seabird colony at Capa Thompson	Nesting	●	*	*	9	9		Egg gathering	●	0			
						Murres	217,000 pr.												
						Black-legged kittiwake	10,200 pr.												
						Horned puffin	700 pr.												
						Glaucous gull	36 pr.												
						Pigeon guillemot	10 pr.												
						Black guillemot	2 pr.												
						Pelagic cormorant	2 pr.												

COASTAL RESOURCE TABLE LEGEND

UNIT DIMENSIONS

Unit Identifier
Letter indicates location of unit on resource maps. A "prime" (e.g., A') indicates that unit is located within a lagoon or embayment.

Unit length (Km)
Alongshore length of unit in kilometers.

Unit Width (m)
Estimated across-shore width of the shore-zone as measured between the low water line and the normal storm high-water line (in meters).

PHYSICAL RESOURCES

Maximum Wave Fetch (Km)
Approximate maximum open-water fetch distance (for average ice years) measured in kilometers.

Across-Shore Character
Description of shore-zone morphology and substrate types. Shore-zone character is described in terms of morphological components ; landward-most shore-zone components are listed first, seaward-most components are listed last.

Morphological Components
Shore-zone morphologies which vary in the across-shore direction but which are continuous in the alongshore direction (within the unit).

Substrate Type
The dominant substrate type of each morphological component. Clastic sediment terminology is that of Folk (1968). Last element of substrate description is dominant (e.g., gravelly sand is greater than 50% sand). A "/" indicates one substrate or sediment overlies another substrate (e.g., "organics/sand" indicates an organic layer overlies sand).

BIOLOGICAL RESOURCES

Resources
Descriptive reference to common biological resources within unit. Only shore-based resources are listed, except in lagoons, where key marine resources are identified. Where abundance is well-documented, species numbers are provided (e.g., marine bird colonies).

Activity
Descriptive reference to dominant biological activities which occur within the unit.

Seasonal-Use Chart (MJJASO)
Identifies months (May, June, July, etc.) when major biological activity occurs within the unit. Open circles indicate that only a partial month of activity occurs; filled circles indicate a complete month of activity normally occurs.

HUMAN RESOURCES AND USE

Activity
Identifies important human-uses of the shore-zone or lagoonal waters. Offshore use activities (e.g., bowhead whaling) are not identified).

Seasonal-Use Chart (MJJASO)
Identifies months (May, June, July, etc.) when human use activity occurs within the unit. Open circles indicate that only a partial month of activity occurs; filled circles indicate a complete month of activity normally occurs.