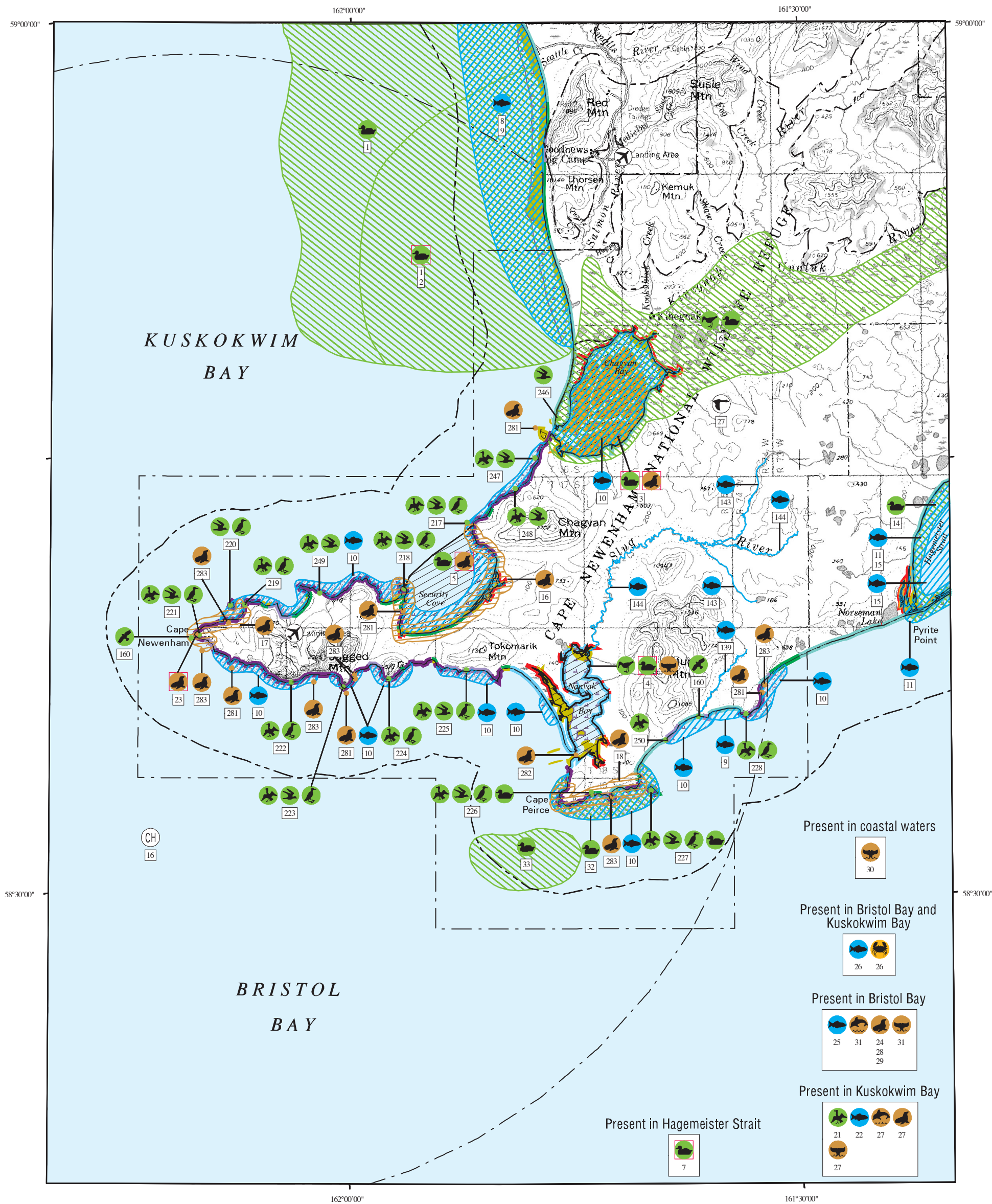


ENVIRONMENTAL SENSITIVITY INDEX MAP

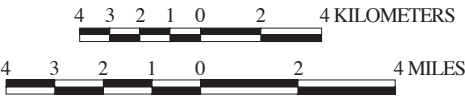


SHORELINE HABITATS (ESI)

- 1A EXPOSED ROCKY SHORES
- 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK, MUD, OR CLAY
- 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES AND SHELTERED SCARPS IN MUD AND CLAY
- 8E PEAT SHORELINES
- 9A SHELTERED TIDAL FLATS
- 10A SALT-AND BRACKISH-WATER MARSHES

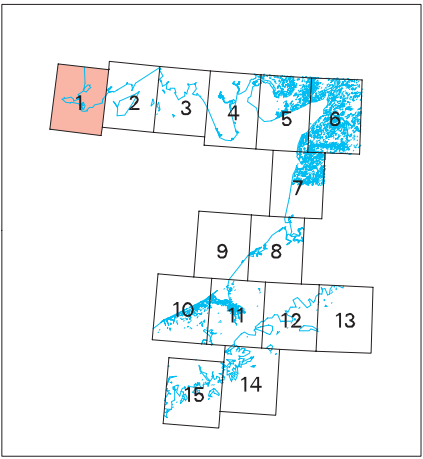


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Bristol Bay: ESIMAP 1

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating		Molting
1	White-winged scoter			HIGH				X	X		X	X	X	X			-	APR-MAY	JUL-OCT	JUL-SEP
2	Black scoter			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Brant			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	King eider			1,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	JUL-OCT
	Long-tailed duck			100S				X	X								-	APR-MAY		-
	Steller's eider	C	T	1,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
3	Black scoter			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Brant			10,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Canada goose			1,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Common eider			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Emperor goose			1,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Northern pintail			1,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Scaup			1,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Steller's eider	C	T	10,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	JUL-AUG
	White-winged scoter			100S							X	X	X				-	AUG-OCT		-
4	Brant			1,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Canada goose			1,000S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Common eider			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Dunlin									X	X	X	X	X			-	JUN-OCT		-
	Emperor goose			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Least sandpiper			1,000S						X	X	X					MAY-JUL	MAY-JUL		-
	Northern pintail			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Red-necked phalarope			1,000S					X	X	X	X	X	X			MAY-JUL	MAY-OCT		-
	Rock sandpiper									X	X	X	X	X			-	JUN-OCT		-
	Sanderling									X	X	X	X				-	JUN-OCT		-
	Scaup			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Shorebirds			19,000				X	X	X	X	X	X	X			MAY-JUL	APR-OCT		-
	Steller's eider	C	T	100S				X	X		X	X	X	X			-	APR-MAY	AUG-OCT	JUL-AUG
	Western sandpiper			1,000S				X	X	X	X						-	APR-JUL		-
5	Waterfowl			HIGH			X	X			X	X					-	APR-MAY	SEP-OCT	-
6	Black turnstone								X	X	X						MAY-JUL	MAY-JUL		-
	Black-bellied plover								X	X	X						-	MAY-JUL		-
	Dunlin			1,000S				X	X	X	X	X	X	X			MAY-JUL	APR-OCT		-
	Least sandpiper			1,000S					X	X	X	X	X	X			MAY-JUL	MAY-OCT		-
	Rock sandpiper			1,000S				X	X	X	X	X	X	X			MAY-JUL	APR-OCT		-
	Ruddy turnstone								X	X	X						-	MAY-JUL		-
	Shorebirds			25,000				X	X	X	X	X	X	X			MAY-JUL	APR-OCT		-
	Waterfowl			HIGH			X	X		X	X	X	X				-	APR-MAY	SEP-OCT	JUL-AUG
	Western sandpiper			1,000S				X	X	X	X						-	APR-JUL		-
7	Black scoter			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Brant			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Canada goose			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Emperor goose			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Long-tailed duck			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Northern pintail			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Scaup			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	Steller's eider	C	T	100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	White-winged scoter			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
14	Harlequin duck							X	X		X	X	X				-	APR-MAY	AUG-OCT	-
21	Red-throated loon												X	X	X		-	SEP-NOV		SEP-NOV
32	Harlequin duck			100S				X	X		X	X	X				-	APR-MAY	AUG-OCT	-
33	Common eider							X	X		X	X	X				-	APR-MAY	AUG-OCT	-
	King eider							X	X		X	X	X				-	APR-MAY	AUG-OCT	-
160	Bald eagle							X	X	X	X	X					APR-AUG	-		-
217	Glaucous-winged gull			10				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant			104				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
218	Black-legged kittiwake			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull			16				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin			200				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant			18				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
219	Horned puffin			4				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant			54				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin			10				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
220	Black-legged kittiwake			7,549				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Common murre			102,632				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull			1,604				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Parakeet auklet			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin			5,000				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
221	Black-legged kittiwake			1,000S				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Cormorant			110				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull			6				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin			222				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Murre			30,300				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Parakeet auklet			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
222	Black-legged kittiwake			35,237				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Common murre			42,646				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin			30				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant			49				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
223	Black-legged kittiwake			9,689				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Common murre			14,093				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull			13				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant			41				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
224	Black-legged kittiwake			13,990				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Common murre			12,623				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant			106				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
225	Black-legged kittiwake			1,792				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Common murre			614				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull			102				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin			32				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant			287				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin			35				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
226	Black-legged kittiwake			11,304				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Common eider			10				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Common murre			13,606				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Glaucous-winged gull			2				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Horned puffin			900				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Parakeet auklet			100				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pelagic cormorant			81				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Pigeon guillemot			300				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-
	Tufted puffin			100				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Bristol Bay: ESIMAP 1 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD:																					
RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating		Molting	
227	Black-legged kittiwake			11,482				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Common eider			100				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Common murre			102,368				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Double-crested cormorant			600				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Glaucous-winged gull			2,280				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Horned puffin			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Parakeet auklet			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Pelagic cormorant			100				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Pigeon guillemot			3				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Tufted puffin			80,000				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
228	Black-legged kittiwake			16				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Common murre			1,000S				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Pelagic cormorant			70				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
246	Aleutian tern			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
247	Glaucous-winged gull			2				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Pelagic cormorant			18				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
248	Glaucous-winged gull			11				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Pelagic cormorant			20				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
249	Glaucous-winged gull			6				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
	Pelagic cormorant			UNKNOWN				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
250	Pelagic cormorant			9				X	X	X	X	X	X				JUN-JUL	APR-MAY	AUG-OCT	-	
FISH:																					
RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
8	Pacific herring									X	X	X					MAY-JUN	MAY-JUL	MAY-JUL	JUN-JUL	MAY-JUN
9	Capelin									X	X	X	X				MAY-AUG	JUN-JUL	JUN-AUG	-	MAY-AUG
10	Pacific herring							X	X	X	X						APR-JUN	MAY-JUL	-	-	APR-JUL
11	Capelin									X	X	X	X				MAY-AUG	JUN-JUL	JUN-AUG	-	MAY-AUG
	Pacific herring			HIGH				X	X	X	X						APR-JUN	MAY-JUL	-	-	APR-JUL
15	Rainbow smelt			HIGH				X	X								-	-	-	APR-MAY	-
22	Chinook salmon									X	X	X	X				-	-	-	MAY-JUN	MAY-AUG
	Chum salmon (dog)									X	X	X	X				-	-	-	MAY-JUN	JUN-AUG
	Coho salmon (silver)									X	X	X	X	X	X		-	-	-	MAY-JUN	JUL-OCT
	Dolly varden									X	X	X	X	X			-	-	-	MAY-JUN	MAY-SEP
	Pink salmon (humpy)									X	X	X	X				-	-	-	MAY-JUN	JUN-AUG
	Saffron cod					X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Starry flounder									X	X	X					-	-	-	JUN-AUG	JUN-AUG
25	Chinook salmon									X	X	X	X				-	-	-	MAY-JUN	MAY-AUG
	Chum salmon (dog)									X	X	X	X				-	-	-	MAY-JUN	JUN-AUG
	Coho salmon (silver)									X	X	X	X	X	X		-	-	-	MAY-JUN	JUL-OCT
	Dolly varden									X	X	X	X	X			-	-	-	MAY-JUN	MAY-SEP
	Pink salmon (humpy)									X	X	X					-	-	-	MAY-JUN	JUN-JUL
	Sockeye salmon (red)			HIGH						X	X	X	X				-	-	-	MAY-JUN	MAY-AUG
26	Alaska plaice					X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	MAY-JUN	MAY-JUN	JAN-DEC	JAN-DEC
	Pacific cod					X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	-	-	JAN-DEC	JAN-DEC
	Pacific halibut									X	X	X	X				-	-	-	-	JUL-OCT
	Rainbow smelt					X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Rock sole					X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	DEC-SEP
	Sculpin					X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Starry flounder					X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Walleye pollock					X	X	X	X	X	X	X	X	X	X	X	FEB-MAY	-	-	JAN-DEC	JAN-DEC
	Yellowfin sole					X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	JUN-AUG	JUN-NOV	JAN-DEC	MAY-AUG
139	Chum salmon (dog)					X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	AUG-MAR	MAR-MAY	JAN-DEC	JUN-SEP
	Dolly varden					X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-DEC	DEC-JUN	JAN-DEC	JAN-DEC
143	Chum salmon (dog)					X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	AUG-MAR	MAR-MAY	JAN-DEC	JUN-SEP
	Dolly varden					X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-DEC	DEC-JUN	JAN-DEC	JAN-DEC
	Sockeye salmon (red)					X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	SEP-MAR	MAR-MAY	JAN-DEC	JUN-SEP
144	Chum salmon (dog)					X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	AUG-MAR	MAR-MAY	JAN-DEC	JUN-SEP
	Coho salmon (silver)					X	X	X	X	X	X	X	X	X	X	X	SEP-NOV	OCT-MAR	MAR-MAY	JAN-DEC	JUL-NOV
	Dolly varden					X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-DEC	DEC-JUN	JAN-DEC	JAN-DEC
	Sockeye salmon (red)					X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	SEP-MAR	MAR-MAY	JAN-DEC	JUN-SEP
INVERTEBRATE:																					
RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
26	Red king crab				X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUL	-	-	JAN-DEC	JAN-DEC
	Tanner crab				X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	JAN-DEC	JAN-DEC
MARINE MAMMAL:																					
RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Molting	Pupping	
3	Steller (Northern) sea lion	C	E					X	X	X	X	X					-	-	-	-	
4	Beluga whale			>20				X	X	X	X	X	X				-	JUN-AUG	-	-	
5	Steller (Northern) sea lion	C	E					X	X	X	X	X					-	-	-	-	
16	Walrus			>200				X	X	X	X	X	X	X			-	-	-	-	
17	Walrus			4-5444				X	X	X	X	X	X	X			-	-	-	-	
18	Walrus			284-12,500				X	X	X	X	X	X	X			-	-	-	-	
23	Steller (Northern) sea lion	C	E	130-499				X	X	X	X	X					-	-	-	-	
24	Walrus			HIGH		X	X	X								X	DEC-MAR	-	-	-	
27	Bearded seal				X	X	X	X	X							X	-	-	-	MAR-MAY	
	Beluga whale							X	X	X	X	X	X	X	X		-	JUN-AUG	-	-	
	Harbor porpoise									X	X	X					-	-	-	-	
	Minke whale									X	X	X					-	-	-	-	
	Ringed seal					X	X	X	X	X	X				X	X	-	-	MAR-JUL	MAR-MAY	
	Spotted seal					X	X	X	X	X					X	X	-	-	-	-	
	Walrus							X	X	X					X	X	-	-	-	-	
28	Ringed seal					X	X	X	X						X		-	-	-	MAR-APR	
29	Bearded seal					X	X	X	X						X		-	-	-	MAR-APR	
30	Gray whale							X	X	X							-	-	-	-	
31	Harbor porpoise									X	X	X					-	-	-	-	
	Killer whale					X	X	X	X	X	X	X	X	X			-	SEP-OCT	-	-	
	Minke whale									X	X	X					-	-	-	-	
281	Seals			10S		X	X	X	X	X	X	X	X				-	-	-	MAY-JUL	
282	Seals			100S		X	X	X	X	X	X	X	X				-	-	-	MAY-JUL	
283	Seals			<10		X	X	X	X	X	X	X	X								

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Bristol Bay: ESIMAP 1 (cont.)

HUMAN USE RESOURCES:

CRITICAL HABITAT:

HUN#	Name	Owner	Contact	Phone
16	STELLER SEA LION CRITICAL HABITAT	NMFS	NMFS	907/586-7858

WILDLIFE REFUGE:

HUN#	Name	Owner	Contact	Phone
27	TOGIAK NATIONAL WILDLIFE REFUGE	US FISH & WILDLIFE SERVICE	REFUGE MANAGER	907/842-1063

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