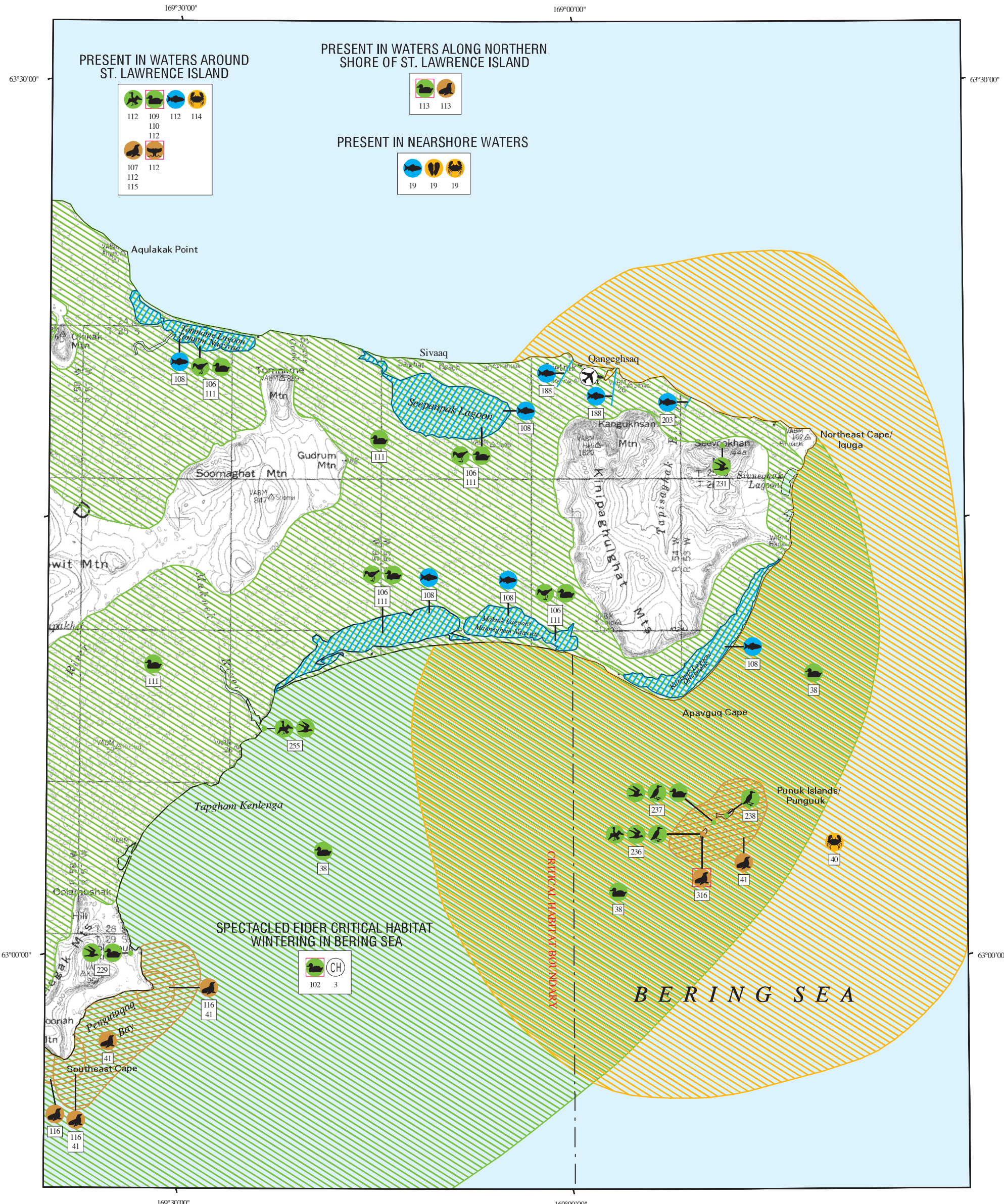


ENVIRONMENTAL SENSITIVITY INDEX MAP



SHORELINE HABITATS (ESI)

|  |
|--|
| 1A EXPOSED ROCKY SHORES  |
| 1B EXPOSED, SOLID MAN-MADE STRUCTURES                          |
| 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK, MUD, OR CLAY         |
| 2B EXPOSED SCARPS AND STEEP SLOPES IN CLAY                     |
| 3A FINE- TO MEDIUM-GRAINED SAND BEACHES                        |
| 3B SCARPS AND STEEP SLOPES IN SAND                             |
| 3C TUNDRA CLIFFS   |
| 4 COARSE-GRAINED SAND BEACHES                                  |
| 5 MIXED SAND AND GRAVEL BEACHES                                |
| 6A GRAVEL BEACHES  |
| 6B RIPRAP  |
| 7 EXPOSED TIDAL FLATS  |
| 8A SHELTERED ROCKY SHORES AND SHELTERED SCARPS IN MUD AND CLAY |
| 8B SHELTERED, SOLID MAN-MADE STRUCTURES                        |
| 8C SHELTERED RIPRAP  |
| 8E PEAT SHORELINES   |
| 9A SHELTERED TIDAL FLATS                                       |
| 9B SHELTERED, VEGETATED LOW BANKS                              |
| 10A SALT- AND BRACKISH-WATER MARSHES                           |
| 10D SCRUB-SHRUB WETLANDS                                       |
| 10E INUNDATED, LOW-LYING TUNDRA                                |

Not For Navigation  
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National Ocean Service  
Office of Response and Restoration  
Hazardous Materials Response Division



NW ARCTIC, AK - ESIMAP 31

BIOLOGICAL RESOURCES:

BIRD:

| RAR# | Species                | S/F | T/E | Conc.     | J | F | M | A | M | J | J | A | S | O | N | D | Pre-nest | Nesting | Post-nest |
|------|------------------------|-----|-----|-----------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|-----------|
| 38   | King eider             |     |     | VERY HIGH |   |   |   |   |   |   |   | X | X | X |   |   | -        | -       | -         |
| 102  | Spectacled eider       | S/F | C/T | 363030    | X | X | X | X |   |   |   | X | X | X | X | X | -        | -       | -         |
| 106  | Dunlin                 |     |     | 1000s     |   |   |   |   | X | X | X |   |   |   |   |   | MAY-JUN  | MAY-JUL | -         |
|      | Dunlin                 |     |     | 10000s    |   |   |   |   |   |   | X | X | X |   |   |   | -        | -       | JUL-SEP   |
|      | Long-billed dowitcher  |     |     | 1000s     |   |   |   | X | X | X |   |   |   |   |   |   | MAY-JUN  | MAY-JUL | -         |
|      | Long-billed dowitcher  |     |     | 10000s    |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | JUL-SEP   |
|      | Pacific golden-plover  |     |     | 1000s     |   |   |   | X | X | X |   |   |   |   |   |   | MAY-JUN  | MAY-JUL | -         |
|      | Pacific golden-plover  |     |     | 10000s    |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | JUL-SEP   |
|      | Red phalarope          |     |     | 1000s     |   |   |   | X | X | X |   |   |   |   |   |   | MAY-JUN  | MAY-JUL | -         |
|      | Red phalarope          |     |     | 10000s    |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | JUL-SEP   |
|      | Red-necked phalarope   |     |     | 1000s     |   |   |   | X | X | X |   |   |   |   |   |   | MAY-JUN  | MAY-JUL | -         |
|      | Red-necked phalarope   |     |     | 10000s    |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | JUL-SEP   |
|      | Rock sandpiper         |     |     | 1000s     |   |   |   | X | X | X |   |   |   |   |   |   | MAY-JUN  | MAY-JUL | -         |
|      | Rock sandpiper         |     |     | 10000s    |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | JUL-SEP   |
|      | Ruddy turnstone        |     |     | 1000s     |   |   |   | X | X | X |   |   |   |   |   |   | MAY-JUN  | MAY-JUL | -         |
|      | Ruddy turnstone        |     |     | 10000s    |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | JUL-SEP   |
| 109  | Common eider           |     |     | 1000s     | X | X | X | X |   |   |   |   |   | X | X | X | -        | -       | -         |
|      | King eider             |     |     | 1000s     | X | X | X | X |   |   |   |   |   | X | X |   | -        | -       | -         |
|      | Long-tailed duck       |     |     | 1000s     | X | X | X | X |   |   |   |   |   | X | X | X | -        | -       | -         |
| 110  | Brant                  |     |     | 100s      |   |   |   |   |   |   |   | X | X |   |   |   | -        | -       | AUG-SEP   |
|      | Greater scaup          |     |     | 1000s     |   |   |   |   | X | X | X | X |   |   |   |   | -        | -       | JUN-SEP   |
|      | Tundra swan            |     |     | 10s       |   |   |   |   |   | X | X | X | X |   |   |   | -        | -       | JUL-OCT   |
| 111  | Brant                  |     |     |           |   |   |   | X | X | X | X | X |   |   |   |   | MAY-JUL  | MAY-SEP | AUG-SEP   |
|      | Common eider           |     |     | 100s      |   |   |   | X | X | X | X | X |   |   |   |   | MAY-JUN  | JUN-JUL | JUL-SEP   |
|      | Emperor goose          |     |     | 10s       |   |   |   | X | X | X | X | X |   |   |   |   | -        | MAY-SEP | -         |
|      | Greater scaup          |     |     |           |   |   |   | X | X | X | X | X |   |   |   |   | MAY-JUN  | MAY-SEP | JUN-SEP   |
|      | Long-tailed duck       |     |     |           |   |   | X | X | X | X | X | X |   |   |   |   | APR-JUN  | MAY-AUG | JUN-SEP   |
|      | Snow goose             |     |     | 1000s     |   |   |   | X | X |   | X | X | X |   |   |   | MAY-JUN  | -       | AUG-OCT   |
|      | Tundra swan            |     |     | 10s       |   |   |   | X | X | X | X | X | X |   |   |   | MAY-JUN  | MAY-SEP | JUL-OCT   |
| 112  | Emperor goose          |     |     | 1000s     |   |   |   | X |   |   | X | X |   |   |   |   | MAY-MAY  | -       | AUG-SEP   |
|      | Red-throated loon      |     |     |           | X | X | X | X | X | X | X | X |   |   |   |   | -        | -       | -         |
|      | Snow goose             |     |     | 1000s     |   |   |   | X | X |   | X | X | X |   |   |   | MAY-JUN  | -       | AUG-OCT   |
|      | Steller's eider        | S/F | C/T | 1000s     | X | X | X | X | X | X | X | X |   |   |   |   | -        | -       | -         |
| 113  | Spectacled eider       | S/F | C/T | 1000s     | X | X | X | X | X | X | X | X |   |   |   |   | -        | -       | -         |
| 229  | Common eider           |     |     | UNKNOWN   |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Herring gull           |     |     | UNKNOWN   |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
| 231  | Glaucous gull          |     |     | 61        |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Herring gull           |     |     | 59        |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
| 236  | Black-legged kittiwake |     |     | 52        |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Glaucous gull          |     |     | 2         |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Horned puffin          |     |     | UNKNOWN   |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Parakeet auklet        |     |     | 30        |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Pelagic cormorant      |     |     | 504       |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Pigeon guillemot       |     |     | 350       |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Tufted puffin          |     |     | 4450      |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
| 237  | Common eider           |     |     | 160       |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Herring gull           |     |     | 274       |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Tufted puffin          |     |     | 942       |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
| 238  | Common murre           |     |     | UNKNOWN   |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Horned puffin          |     |     | 22        |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Parakeet auklet        |     |     | 168       |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Pigeon guillemot       |     |     | 66        |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Tufted puffin          |     |     | 35        |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
| 255  | Herring gull           |     |     | 2         |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |
|      | Pelagic cormorant      |     |     | 40        |   |   |   | X | X | X | X | X | X |   |   |   | APR-MAY  | JUN-JUL | AUG-OCT   |

FISH:

| RAR# | Species              | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs    | Larvae  | Juveniles | Adults  |
|------|----------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|---------|-----------|---------|
| 19   | Chinook salmon       |     |     |       |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | -       | MAY-JUL   | JUN-JUL |
|      | Chum salmon (dog)    |     |     |       |   |   |   |   |   | X | X | X | X |   |   |   | -        | -       | -       | MAY-JUL   | JUN-AUG |
|      | Coho salmon (silver) |     |     |       |   |   |   |   |   | X | X | X | X |   |   |   | -        | -       | -       | MAY-JUL   | AUG-AUG |
|      | Dolly varden         |     |     |       |   |   |   |   |   | X | X | X | X | X | X |   | -        | -       | -       | MAY-JUL   | AUG-OCT |
|      | Pink salmon (humpy)  |     |     |       |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | MAY-JUL | MAY-JUL   | JUN-JUL |
|      | Rainbow smelt        |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | -        | -       | -       | -         | JAN-DEC |
|      | Saffron cod          |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | -        | -       | -       | -         | JAN-DEC |
|      | Starry flounder      |     |     |       |   |   |   |   |   | X | X | X |   |   |   |   | -        | -       | -       | JUN-AUG   | JUN-AUG |
| 108  | Rainbow smelt        |     |     |       |   |   |   |   |   |   |   |   | X | X | X |   | -        | -       | -       | -         | SEP-NOV |
|      | Saffron cod          |     |     |       |   |   |   |   |   |   |   |   | X | X | X |   | -        | -       | -       | -         | SEP-NOV |
|      | Whitefish            |     |     | HIGH  | X | X | X | X | X | X | X | X | X | X | X | X | -        | -       | -       | JAN-DEC   | JAN-DEC |
| 112  | Pacific halibut      |     |     |       |   |   |   |   |   | X | X | X | X |   |   |   | -        | -       | -       | -         | JUL-OCT |
| 188  | Dolly varden         |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | AUG-OCT  | AUG-DEC | DEC-JUN | JAN-DEC   | JAN-DEC |
| 203  | Dolly varden         |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | AUG-OCT  | AUG-DEC | DEC-JUN | JAN-DEC   | JAN-DEC |
|      | Pink salmon (humpy)  |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | JUL-AUG  | JUL-DEC | DEC-JUN | MAY-JUN   | JUL-AUG |

INVERTEBRATE:

| RAR# | Species                | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Spawn/Mate | Eggs    | Larvae  | Juveniles | Adults  |
|------|------------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|------------|---------|---------|-----------|---------|
| 19   | Alaska razor clam      |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | -          | -       | -       | -         | -       |
|      | Butter clam            |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | -          | -       | -       | -         | -       |
|      | Crenulate astarte      |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | -          | -       | -       | -         | -       |
|      | Helmet crab            |     |     |       | X | X | X | X |   | X |   |   |   | X | X |   | -          | -       | -       | -         | -       |
|      | Pinkneck clam          |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | -          | -       | -       | -         | -       |
|      | Siberia softshell clam |     |     |       | X | X | X | X | X | X | X | X | X |   | X | X | -          | -       | -       | -         | -       |
|      | Softshell clam         |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | -          | -       | -       | -         | -       |
| 40   | Blue king crab         |     |     | HIGH  | X | X | X | X | X | X | X | X | X | X | X | X | FEB-APR    | JAN-DEC | FEB-JUN | JAN-DEC   | JAN-DEC |
| 114  | Blue king crab         |     |     |       | X | X | X | X | X | X | X | X | X | X | X | X | FEB-APR    | JAN-DEC | FEB-JUN | JAN-DEC   | JAN-DEC |

NW ARCTIC, AK - ESIMAP 31 (cont.)

BIOLOGICAL RESOURCES: (cont.)

MARINE MAMMAL:

| RAR# | Species                     | S/F | T/E | Conc. | J | F | M | A | M | J | J | A | S | O | N | D | Mating | Calving | Pupping | Molting |
|------|-----------------------------|-----|-----|-------|---|---|---|---|---|---|---|---|---|---|---|---|--------|---------|---------|---------|
| 41   | Walrus                      |     |     | HIGH  | X | X | X | X | X | X |   |   |   | X | X | X | -      | -       | -       | -       |
| 107  | Walrus                      |     |     | HIGH  | X | X | X | X | X | X |   |   |   | X | X | X | -      | -       | -       | -       |
| 112  | Beluga whale                |     |     |       |   |   | X | X |   |   |   |   |   |   |   |   | -      | -       | -       | -       |
|      | Blue whale                  | S/F | E/E |       |   |   |   |   |   | X | X | X | X | X | X |   | -      | -       | -       | -       |
|      | Bowhead whale               | S/F | C/E |       |   |   | X | X |   |   |   |   |   |   |   |   | -      | -       | -       | -       |
|      | Fin whale                   | F   | E   |       |   |   |   |   | X | X | X | X | X | X | X |   | -      | -       | -       | -       |
|      | Gray whale                  |     |     |       |   |   |   |   | X | X | X | X | X | X | X |   | -      | -       | -       | -       |
|      | Killer whale                |     |     |       |   |   |   |   | X | X | X | X | X | X | X |   | -      | -       | -       | -       |
|      | Minke whale                 |     |     |       |   |   |   |   |   | X | X | X |   |   |   |   | -      | -       | -       | -       |
|      | Northern right whale        | S/F | E/E |       |   |   |   |   |   | X | X | X | X | X | X |   | -      | -       | -       | -       |
|      | Ringed seal                 |     |     |       | X | X | X | X | X | X |   |   |   | X | X | X | -      | -       | MAR-MAY | MAR-JUN |
| 113  | Bearded seal                |     |     | HIGH  |   |   |   | X | X | X |   |   |   |   |   |   | -      | -       | -       | -       |
| 115  | Spotted seal                |     |     | HIGH  |   |   |   | X | X | X | X | X | X | X | X | X | -      | -       | -       | APR-JUL |
| 116  | Spotted seal                |     |     | HIGH  |   |   |   | X | X | X | X | X | X | X | X | X | -      | -       | -       | APR-JUL |
| 316  | Steller (Northern) sea lion | S/F | C/E |       |   |   |   |   |   | X | X | X | X | X | X |   | -      | -       | JUN-JUL | JUL-NOV |

HUMAN USE RESOURCES:

CRITICAL HABITAT:

| HUN# | Name                              | Owner | Contact                    | Phone        |
|------|-----------------------------------|-------|----------------------------|--------------|
| 3    | SPECTACLED EIDER CRITICAL HABITAT |       | US FISH & WILDLIFE SERVICE | 907/271-2781 |

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.