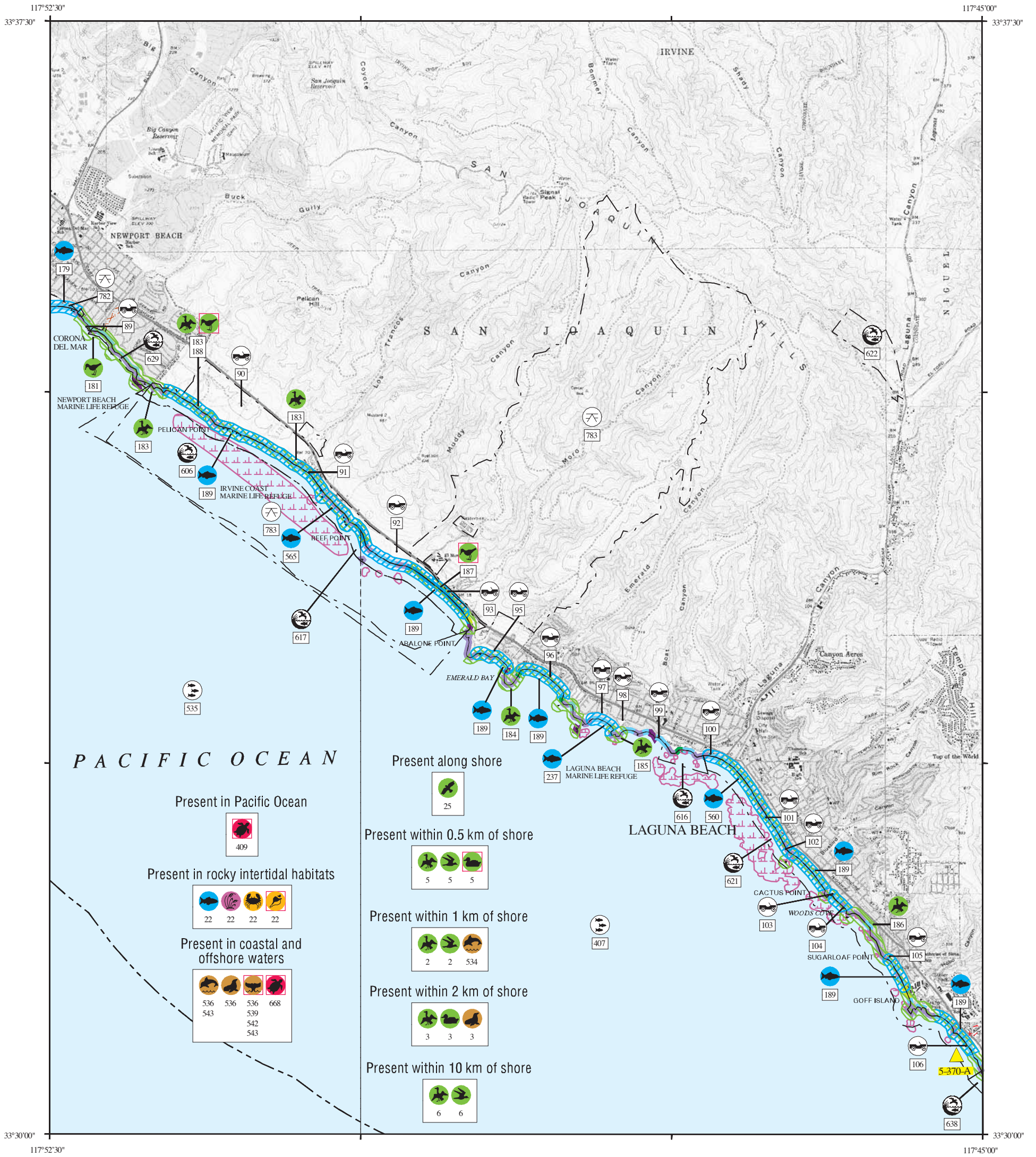


# ENVIRONMENTAL SENSITIVITY INDEX MAP

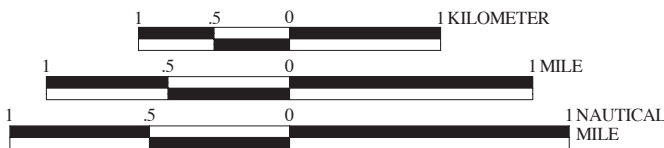


## SHORELINE HABITATS (ESI)

- 1A EXPOSED ROCKY SHORES
- 1B EXPOSED, SOLID, MAN-MADE STRUCTURES
- 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK
- 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
- 3B SCARPS AND STEEP SLOPES IN SAND
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6D BOULDER RUBBLE
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES
- 8B SHELTERED, SOLID MAN-MADE STRUCTURES
- 8C SHELTERED RIPRAP
- 9A SHELTERED TIDAL FLATS
- 9B VEGETATED LOW BANKS
- 9C HYPERSALINE TIDAL FLATS
- 10A SALT-AND BRACKISH-WATER MARSHES
- 10B FRESHWATER MARSHES
- 10C SWAMPS
- 10D SCRUB-SHRUB WETLANDS

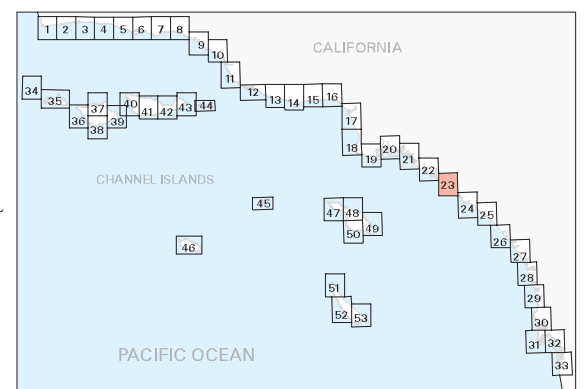


SCALE 1:50000



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 National Oceanic and Atmospheric Administration  
 National Ocean Service  
 Office of Response and Restoration  
 Emergency Response Division



# Southern California: ESIMAP 23

## BIOLOGICAL RESOURCES:

### BIRD:

| RAR# | Species                  | S F Conc.      | J | F | M | A | M | J | J | A | S | O | N | D | Nesting | Migrating | Molting |
|------|--------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---------|-----------|---------|
| 2    | California gull          |                | X | X | X | X | X |   |   |   | X | X | X | X | -       | -         | -       |
|      | Caspian tern             |                | X | X | X | X | X | X | X | X | X | X | X | X | -       | -         | -       |
|      | Double-crested cormorant |                | X | X | X | X | X | X | X | X | X | X | X | X | -       | -         | -       |
|      | Heermann's gull          |                | X | X | X | X | X | X | X | X | X | X | X | X | -       | -         | -       |
| 3    | Surf scoter              |                | X | X | X | X |   |   |   |   | X | X | X |   | -       | -         | -       |
|      | Western grebe            |                | X | X | X | X |   |   |   |   | X | X | X |   | -       | -         | -       |
| 5    | Brant                    | C              | X | X | X | X |   |   |   |   |   | X | X |   | -       | -         | -       |
|      | Elegant tern             |                |   |   |   |   | X | X | X | X | X | X | X |   | -       | -         | -       |
|      | Forster's tern           |                | X | X | X | X | X | X | X | X | X | X | X | X | -       | -         | -       |
|      | Least tern               |                | X | X | X | X | X | X | X | X | X | X | X |   | -       | -         | -       |
|      | Pacific loon             |                | X | X | X | X | X |   |   |   | X | X | X | X | -       | -         | -       |
|      | Red-throated loon        |                | X | X | X | X |   |   |   |   | X | X |   |   | -       | -         | -       |
|      | Ring-billed gull         |                | X | X | X | X |   |   |   |   | X | X | X | X | -       | -         | -       |
|      | Royal tern               |                | X | X | X | X | X | X | X | X | X | X | X | X | -       | -         | -       |
| 6    | Brandt's cormorant       |                | X | X | X | X |   |   |   |   | X | X | X | X | -       | -         | -       |
|      | Brown pelican            |                | X | X | X | X | X | X | X | X | X | X | X | X | -       | -         | -       |
|      | Western gull             |                | X | X | X | X | X | X | X | X | X | X | X | X | -       | -         | -       |
| 25   | Peregrine falcon         |                | X | X | X | X |   |   |   |   | X | X | X | X | -       | -         | -       |
| 181  | Black turnstone          |                | X | X | X | X |   |   |   |   | X | X | X | X | -       | -         | -       |
|      | Ruddy turnstone          |                |   |   |   | X | X | X | X |   |   |   |   |   | -       | -         | -       |
|      | Shorebirds               |                | X | X | X | X | X | X | X | X | X | X | X | X | -       | -         | -       |
| 183  | Brown pelican            | 0-41 BIRDS     |   |   |   |   |   | X | X | X | X | X | X |   | -       | -         | -       |
| 184  | Brown pelican            | 0-51 BIRDS     |   |   |   |   |   | X | X | X | X | X | X |   | -       | -         | -       |
| 185  | Brown pelican            | 5-133 BIRDS    |   |   |   |   |   | X | X | X | X | X | X |   | -       | -         | -       |
| 186  | Brown pelican            | 0-48 BIRDS     |   |   |   |   |   | X | X | X | X | X | X |   | -       | -         | -       |
| 187  | Black turnstone          |                | X | X | X | X |   |   |   |   | X | X | X | X | -       | -         | -       |
|      | Black-bellied plover     |                | X | X | X | X |   |   |   |   | X | X | X | X | -       | -         | -       |
|      | Ruddy turnstone          |                |   |   |   | X | X | X | X |   |   |   |   |   | -       | -         | -       |
|      | Wandering tattler        |                |   |   |   | X | X |   |   |   |   |   |   |   | -       | -         | -       |
|      | Western snowy plover     | C T 2-5 BIRDS  |   |   |   | X | X | X | X | X | X | X | X |   | MAR-SEP | -         | -       |
|      | Western snowy plover     | C T 5-10 BIRDS | X | X |   |   |   |   |   |   |   | X | X | X | -       | -         | -       |
| 188  | Western snowy plover     | C T 2-5 BIRDS  | X | X | X | X |   |   |   |   | X | X | X | X | -       | -         | -       |

### FISH:

| RAR# | Species               | S F Conc.            | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs    | Larvae  | Juveniles | Adults  |
|------|-----------------------|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---------|---------|-----------|---------|
| 22   | Rocky intertidal fish |                      | X | X | X | X | X | X | X | X | X | X | X | X | -        | -       | -       | -         | -       |
| 179  | California grunion    | CONSISTENT RUNS      | X | X | X | X | X | X | X | X | X | X | X | X | MAR-AUG  | MAR-SEP | MAR-SEP | MAR-SEP   | JAN-DEC |
| 189  | California grunion    | PROBABLE             | X | X | X | X | X | X | X | X | X | X | X | X | MAR-AUG  | MAR-SEP | MAR-SEP | MAR-SEP   | JAN-DEC |
| 237  | California grunion    | CONSISTENT LARGE RUN | X | X | X | X | X | X | X | X | X | X | X | X | MAR-AUG  | MAR-SEP | MAR-SEP | MAR-SEP   | JAN-DEC |
| 560  | California grunion    | FREQUENT LARGE RUNS  | X | X | X | X | X | X | X | X | X | X | X | X | MAR-AUG  | MAR-SEP | MAR-SEP | MAR-SEP   | JAN-DEC |
| 565  | California grunion    | ONE GOOD RUN         | X | X | X | X | X | X | X | X | X | X | X | X | MAR-AUG  | MAR-SEP | MAR-SEP | MAR-SEP   | JAN-DEC |

### HABITAT:

| RAR# | Species                 | S F Conc. | J | F | M | A | M | J | J | A | S | O | N | D |
|------|-------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|
| 22   | Rocky intertidal plants |           | X | X | X | X | X | X | X | X | X | X | X | X |

### INVERTEBRATE:

| RAR# | Species                        | S F Conc.   | J | F | M | A | M | J | J | A | S | O | N | D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|----------|------|--------|-----------|--------|
| 22   | Black abalone                  | E POTENTIAL | X | X | X | X | X | X | X | X | X | X | X | X | -        | -    | -      | -         | -      |
|      | Rocky intertidal invertebrates |             | X | X | X | X | X | X | X | X | X | X | X | X | -        | -    | -      | -         | -      |

### MARINE MAMMAL:

| RAR# | Species                      | S F Conc.   | J | F | M | A | M | J | J | A | S | O | N | D | Mating | Calving | Pupping | Molting |
|------|------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|--------|---------|---------|---------|
| 3    | Pacific harbor seal          | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
| 534  | Bottlenose dolphin           | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
| 536  | Bottlenose dolphin           | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | California sea lion          | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | AUG-SEP |
|      | Dall's porpoise              | PRIMARY     | X | X | X | X |   |   |   |   | X |   |   |   | -      | -       | -       | -       |
|      | Dall's porpoise              | SECONDARY   |   |   |   |   |   | X | X | X | X | X | X |   | -      | -       | -       | -       |
|      | Killer whale                 | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Minke whale                  | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Northern right-whale dolphin | PRIMARY     | X | X | X | X |   |   |   |   | X |   |   |   | -      | -       | -       | -       |
|      | Northern right-whale dolphin | SECONDARY   |   |   |   |   |   | X | X | X | X | X | X |   | -      | -       | -       | -       |
|      | Pacific white-sided dolphin  | PRIMARY     | X | X | X | X |   |   |   |   | X |   |   |   | -      | -       | -       | -       |
|      | Pacific white-sided dolphin  | SECONDARY   |   |   |   |   |   | X | X | X | X | X | X |   | -      | -       | -       | -       |
|      | Risso's dolphin              | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Short-beaked common dolphin  | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Short-finned pilot whale     | RARE        | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Striped dolphin              | RARE        | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
| 539  | Baird's beaked whale         | SECONDARY   | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Cuvier's beaked whale        | SECONDARY   | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Mesoplodont beaked whales    | SECONDARY   | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Sperm whale                  | E SECONDARY | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
| 542  | Blue whale                   | E PRIMARY   |   |   |   |   |   | X | X | X |   |   |   |   | -      | -       | -       | -       |
|      | Blue whale                   | E RARE      | X | X | X |   |   |   |   |   |   | X |   |   | -      | -       | -       | -       |
|      | Blue whale                   | E SECONDARY |   |   |   | X |   |   | X | X | X | X |   |   | -      | -       | -       | -       |
|      | Bryde's whale                | RARE        | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Fin whale                    | E RARE      | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | Humpback whale               | E RARE      | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
|      | North Pacific right whale    | E RARE      | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |
| 543  | Gray whale                   | PRIMARY     | X | X | X |   |   |   |   |   |   |   |   |   | -      | -       | -       | -       |
|      | Gray whale                   | RARE        |   |   |   |   |   | X | X | X | X | X |   |   | -      | -       | -       | -       |
|      | Gray whale                   | SECONDARY   |   |   |   |   |   | X |   |   | X | X |   |   | -      | -       | -       | -       |
|      | Long-beaked common dolphin   | PRIMARY     | X | X | X | X | X | X | X | X | X | X | X | X | -      | -       | -       | -       |

### REPTILE:

| RAR# | Species                | S F Conc.   | J | F | M | A | M | J | J | A | S | O | N | D | Nesting | Hatching | Interesting | Juveniles | Adults  |
|------|------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---------|----------|-------------|-----------|---------|
| 409  | Loggerhead sea turtle  | T RARE      | X | X | X | X | X | X | X | X | X | X | X | X | -       | -        | -           | -         | -       |
| 668  | Leatherback sea turtle | E SECONDARY | X | X | X | X |   |   |   |   |   |   |   |   | -       | -        | -           | -         | MAR-JUL |

### HUMAN USE RESOURCES:

#### ACP SENSITIVE SITES:

| ACP SITE# | Name        | Contact    |
|-----------|-------------|------------|
| 5-370-A   | Aliso Creek | CDF&G OSPR |

#### ACCESS:

| HUN# | Name                                    | Contact                             | Phone        |
|------|---|-------------------------------------|--------------|
| 89   | OR-C-1220 LITTLE CORONA DEL MAR BEACH   | CITY OF NEWPORT BEACH, REC. DEPT.   | 949/644-3151 |
| 90   | OR-C-1230 CRYSTAL COVE STATE PARK NORTH | CRYSTAL COVE STATE PARK             | 949/494-3539 |
| 91   | OR-C-1240 CRYSTAL COVE STATE PARK       | CRYSTAL COVE STATE PARK             | 949/494-3539 |
| 92   | OR-C-1250 CRYSTAL COVE STATE PARK SOUTH | CRYSTAL COVE STATE PARK             | 949/494-3539 |
| 93   | OR-C-1260 MORO CANYON                   | ORANGE COUNTY SHERIFF DEPT.         | 714/647-7000 |
| 95   | OR-D-1310 IRVINE COVE (PRIVATE)         | IRVINE COVE GUARD HOUSE             | 949/376-8111 |
| 96   | OR-D-1312 EMERALD BAY (PRIVATE)         | EMERALD BAY SECURITY                | 949/533-2112 |
| 97   | OR-D-1320 CRESCENT BAY                  | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |

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.

**Southern California: ESIMAP 23 (cont.)**

**HUMAN USE RESOURCES: (cont.)**

**ACCESS: (cont.)**

| HUN# | Name                               | Contact                             | Phone        |
|------|------------------------------------|-------------------------------------|--------------|
| 98   | OR-D-1322 SHAW'S COVE              | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |
| 99   | OR-D-1324 HEISLER PARK             | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |
| 100  | OR-D-1330 LAGUNA CANYON BEACH      | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |
| 101  | OR-D-1335 THALIA ST.               | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |
| 102  | OR-D-1340 CRESS ST.                | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |
| 103  | OR-D-1345 DIAMOND ST. - WOODS COVE | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |
| 104  | OR-D-1350 MOSS ST. BEACH           | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |
| 105  | OR-D-1355 DUMOND DRIVE BEACH       | CITY OF LAGUNA BEACH, MARINE SAFTEY | 949/497-0310 |
| 106  | OR-D-1360 ALISO CREEK BEACH        | ORANGE COUNT SHERIFF DEPT.          | 714/647-7000 |

**FISHERY AREA:**

| HUN# | Name                     | J | F | M | A | M | J | J | A | S | O | N | D |
|------|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| 407  | Barred sand bass         | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Cabezon                  |   | X | X | X | X | X | X | X | X | X | X | X |
|      | California halibut       | X | X | X | X | X | X | X | X | X | X | X | X |
|      | California market squid  | X | X | X | X | X | X | X | X | X | X | X | X |
|      | California scorpionfish  | X | X | X | X | X | X | X | X | X | X | X | X |
|      | California sheephead     |   | X | X | X | X | X | X | X | X | X | X | X |
|      | California spiny lobster | X | X | X |   |   |   |   | X | X | X | X |   |
|      | Dover sole               | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Kelp bass                | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Lingcod                  |   |   | X | X | X | X | X | X | X | X | X |   |
|      | Northern anchovy         | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Ocean whitefish          |   | X | X | X | X | X | X | X | X | X | X | X |
|      | Pacific chub mackerel    | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Pacific sanddab          | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Pacific sardine          | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Rock crabs               | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Rockfish                 |   | X | X | X | X | X | X | X | X | X | X | X |
|      | Sablefish                | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Sea cucumbers            | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Sea urchins              | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Shark                    | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Sheep crab               | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Spot prawn               |   | X | X | X | X | X | X | X | X | X | X |   |
|      | Surfperch                | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Swordfish                | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Thornyhead spp.          | X | X | X | X | X | X | X | X | X | X | X | X |
|      | White seabass            | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Yellowtail               | X | X | X | X | X | X | X | X | X | X | X | X |
| 535  | Barred sand bass         | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Cabezon                  |   | X | X | X | X | X | X | X | X | X | X | X |
|      | California halibut       | X | X | X | X | X | X | X | X | X | X | X | X |
|      | California market squid  | X | X | X | X | X | X | X | X | X | X | X | X |
|      | California scorpionfish  | X | X | X | X | X | X | X | X | X | X | X | X |
|      | California sheephead     |   | X | X | X | X | X | X | X | X | X | X | X |
|      | California spiny lobster | X | X | X |   |   |   |   | X | X | X | X |   |
|      | Dover sole               | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Kelp bass                | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Lingcod                  |   | X | X | X | X | X | X | X | X | X | X |   |
|      | Northern anchovy         | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Ocean whitefish          |   | X | X | X | X | X | X | X | X | X | X | X |
|      | Pacific angel shark      | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Pacific bonito           | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Pacific chub mackerel    | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Pacific sanddab          | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Pacific sardine          | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Ridgeback prawn          | X | X | X | X |   |   |   | X | X | X |   |   |
|      | Rock crabs               | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Rockfish                 |   | X | X | X | X | X | X | X | X | X | X | X |
|      | Sablefish                | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Sea cucumbers            | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Sea urchins              | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Shark                    | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Sheep crab               | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Spot prawn               |   | X | X | X | X | X | X | X | X | X | X |   |
|      | Surfperch                | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Swordfish                | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Thornyhead spp.          | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Tuna                     | X | X | X | X | X | X | X | X | X | X | X | X |
|      | White seabass            | X | X | X | X | X | X | X | X | X | X | X | X |
|      | Yellowtail               | X | X | X | X | X | X | X | X | X | X | X | X |

**MANAGEMENT AREA:**

| HUN# | Name                                  | Contact                          | Phone        |
|------|---------------------------------------|----------------------------------|--------------|
| 606  | CRYSTAL COVE MARINE CONSERVATION AREA | CAL NATURAL RESOURCES AGENCY     | 916/654-1885 |
| 616  | HEISLER PARK MARINE RESERVE           | CAL NATURAL RESOURCES AGENCY     | 916/654-1885 |
| 617  | IRVINE COAST MARINE CONSERVATION AREA | CAL NATURAL RESOURCES AGENCY     | 916/654-1885 |
| 621  | LAGUNA BEACH MARINE CONSERVATION AREA | CAL NATURAL RESOURCES AGENCY     | 916/654-1885 |
| 622  | LAGUNA LAUREL ER                      | LAGUNA LAUREL ECOLOGICAL RESERVE | 858/467-4201 |
| 629  | ROBERT E. BADHAM SMCA                 | CAL NATURAL RESOURCES AGENCY     | 916/654-1885 |
| 638  | SOUTH LAGUNA BEACH SMCA               | CAL NATURAL RESOURCES AGENCY     | 916/654-1885 |

**PARK:**

| HUN# | Name              | Contact                           | Phone        |
|------|-------------------|-----------------------------------|--------------|
| 782  | CORONA DEL MAR SB | CITY OF NEWPORT BEACH, REC. DEPT. | 949/644-3151 |
| 783  | CRYSTAL COVE SP   | CRYSTAL COVE STATE PARK           | 949/494-3539 |

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.