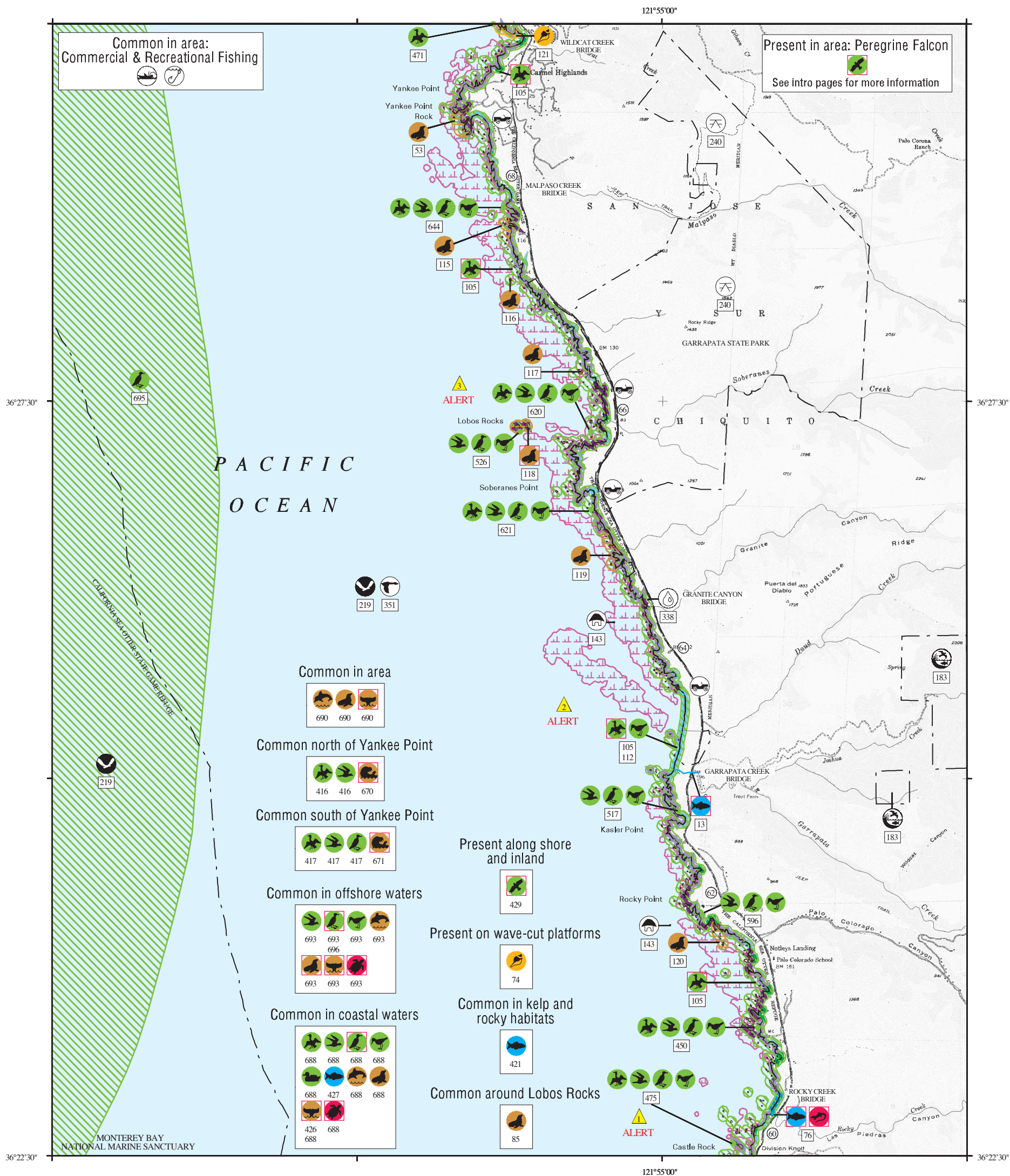


ENVIRONMENTAL SENSITIVITY INDEX MAP



- 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
 - 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
 - 10A SALT- AND BRACKISH-WATER MARSHES
 - 10B FRESHWATER MARSHES
 - 10C SWAMPS
 - 10D SCRUB-SHRUB WETLANDS

Prepared by: Research Planning, Inc.
Columbia, South Carolina



Central 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
105	Brown pelican	E E 2-410 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-NOV	-
112	Shorebirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
416	Diving birds	15000 INDIV.				X	X	X	X	X					APR-AUG	-	-
	Gulls	200 INDIV.				X	X	X	X	X					APR-AUG	-	-
417	Diving birds	1500 INDIV.	X	X	X	X	X	X	X	X					FEB-AUG	-	-
	Gulls	100 INDIV.	X	X	X	X	X	X	X	X					FEB-AUG	-	-
	Seabirds	2000 INDIV.	X	X	X	X	X	X	X	X					FEB-AUG	-	-
429	California condor	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
450	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pelagic cormorant	35 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	36 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Western gull	38 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
471	Pelagic cormorant	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
475	Black oystercatcher	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Brandt's cormorant	750 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Common murre	1050 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-
	Pelagic cormorant	46 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	19 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Western gull	12 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
517	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
526	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
596	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	17 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Western gull	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
620	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pelagic cormorant	46 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	15 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Western gull	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
621	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pelagic cormorant	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Western gull	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
644	Black oystercatcher	5 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pelagic cormorant	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Western gull	18 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
688	Cassin's auklet	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Clark's grebe	MODERATE	X	X	X	X				X	X	X	X		-	MAR-APR SEP-NOV	-
	Common murre	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUL-SEP
	Cormorants	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Eared grebe	LOW	X	X	X	X				X	X	X	X		-	MAR-APR SEP-OCT	-
	Gulls	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Horned grebe	LOW	X	X	X	X				X	X	X	X		-	OCT-APR	-
	Loons	MODERATE	X	X	X	X	X			X	X	X			-	OCT-MAY	-
	Marbled murrelet	E T LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pacific loon	MODERATE	X	X	X	X	X			X	X	X			-	OCT-MAY	-
	Pelicans	MODERATE		X	X	X	X	X	X	X	X	X	X		-	JUL-NOV	-
	Phalaropes	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pigeon guillemot	MODERATE	X	X	X	X	X	X	X	X					-	-	-
	Rhinoceros auklet	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shearwaters	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Sooty shearwater	MODERATE		X	X	X	X	X	X	X	X	X			-	-	APR-OCT
	Surf scoter	MODERATE	X	X	X	X				X	X	X	X		-	MAR-APR SEP-DEC	-
	Western grebe	MODERATE	X	X	X	X				X	X	X	X		-	MAR-APR SEP-NOV	-
	White-winged scoter	MODERATE	X	X	X	X				X	X	X			-	MAR-APR OCT-NOV	-
693	Black-footed albatross	MODERATE	X	X	X	X	X	X	X	X				X	-	-	-
	Common murre	LOW-MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUL-SEP
	Gulls	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Phalaropes	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Rhinoceros auklet	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shearwaters	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Sooty shearwater	LOW		X	X	X	X	X	X	X	X	X	X		-	-	APR-OCT
	Xantus' murrelet	T MODERATE								X	X	X	X		-	-	-
695	Cassin's auklet	HIGH							X	X	X				-	-	-
696	Ashy storm-petrel	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Storm-petrels	MODERATE		X	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
13	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JUN-OCT	OCT-JUN
76	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JUN-OCT	OCT-JUN
421	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	-	-	APR-JUL	JAN-DEC
	Black-and-yellow rockfish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	MAY-JUL	JAN-DEC
	Blue rockfish		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	APR-JUL	JAN-DEC
	Bocaccio		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Canary rockfish (orange)		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	China rockfish		X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUL	-	-	MAY-JUL	JAN-DEC
	Copper rockfish		X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	-	-	APR-JUL	JAN-DEC
	Gopher rockfish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	MAY-JUL	JAN-DEC
	Grass rockfish		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	MAY-JUL	JAN-DEC
	Kelp rockfish		X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	-	-	APR-AUG	JAN-DEC
	Olive rockfish		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	APR-JUL	JAN-DEC
	Vermilion rockfish		X	X	X	X	X	X	X	X	X	X	X	X	SEP-NOV	-	-	FEB-JUL	JAN-DEC
	Widow rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Yellowtail rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
427	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	-	FEB-SEP	JAN-DEC	FEB-NOV
	Salmon			X	X	X	X	X	X						-	-	-	-	APR-SEP

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
74	Black abalone		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
121	Black abalone	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	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	Pupping	Molting
53	Harbor seal	35 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-MAY	-
85	Pinnipeds	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
115	Harbor seal	22 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-MAY	-

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.

Central California: ESIMAP 23 (cont.)

BIOLOGICAL RESOURCES: (cont.)

MARINE MAMMAL: (cont.)

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
116	Harbor seal	11 INDIV.	X X X X X X X X X X X X	-	-	MAR-MAY	-
117	Harbor seal	45 INDIV.	X X X X X X X X X X X X	-	-	MAR-MAY	-
118	California sea lion	23-564 INDIV.	X X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 1 INDIV.	X X X X X X X X X X X X	-	-	-	-
119	Harbor seal	37-51 INDIV.	X X X X X X X X X X X X	-	-	MAR-MAY	-
120	Harbor seal	15 INDIV.	X X X X X X X X X X X X	-	-	MAR-MAY	-
426	Gray whale		X X X X X X X X	-	DEC-FEB	-	-
670	Sea otter	T 91 INDEP / 11 PUPS	X X X X X X X X X X X X	-	-	JAN-MAR SEP-NOV	-
671	Sea otter	T 95 INDEP / 15 PUPS	X X X X X X X X X X X X	-	-	JAN-MAR SEP-NOV	-
688	Bottlenose dolphin	MODERATE	X X X X X X X X X X X X	-	-	-	-
	Fin whale	E LOW	X X X X X X X X X X X X	-	-	-	-
	Harbor porpoise	MODERATE	X X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
	Killer whale	LOW	X X X X X X X X X X X X	-	-	-	-
	Long-beaked common dolphin	LOW	X X X X X X X X X X X X	-	-	-	-
	Minke whale	MODERATE	X X X X X X X X X X X X	-	MAR-MAY	-	-
	Northern right whale	E LOW	X X X	-	-	-	-
	Northern right-whale dolphin	LOW	X X X X X X X X X X X X	-	-	-	-
	Pacific white-sided dolphin	LOW	X X X X X X X X X X X X	-	-	-	-
	Risso's dolphin	MODERATE	X X X X X X X X X X X X	-	-	-	-
	Seals	LOW-MODERATE	X X X X X X X X X X X X	-	-	-	-
	Short-beaked common dolphin	LOW	X X X X X X X X X X X X	-	-	-	-
	Short-finned pilot whale	LOW	X X X X X X X X X X X X	-	-	-	-
690	Blue whale	E HIGH	X X X X X X	-	-	-	-
	Dall's porpoise	HIGH	X X X X X X X X X X X X	-	-	-	-
	Dolphins	HIGH	X X X X X X X X X X X X	-	-	-	-
	Humpback whale	E HIGH	X X X X X X X X X X	-	-	-	-
	Sea lions	HIGH	X X X X X X X X X X X X	-	-	-	-
693	Baird's beaked whale	LOW	X X X X X	-	-	-	-
	California sea lion	LOW	X X X X X X X X X X X X	-	-	-	-
	Cuvier's beaked whale	LOW	X X X X X X X X X X X X	-	-	-	-
	Dwarf sperm whale	LOW	X X X X X X X X X X X X	-	-	-	-
	Fin whale	E MODERATE	X X X X X X X X X X X X	-	-	-	-
	Guadalupe fur seal	T T LOW	X X X X X X X X X X X X	-	-	-	-
	Harbor seal	LOW	X X X X X X X X X X X X	-	-	-	-
	Killer whale	LOW	X X X X X X X X X X X X	-	-	-	-
	Long-beaked common dolphin	LOW	X X X X X X X X X X X X	-	-	-	-
	Mesoplodont beaked whales	LOW	X X X X X X X X X X X X	-	-	-	-
	Minke whale	LOW	X X X X X X X X X X X X	-	MAR-MAY	-	-
	Northern elephant seal	MODERATE	X X X X X X X X X X X X	-	-	-	-
	Northern fur seal	MODERATE	X X X X X X X X X X X X	-	-	-	-
	Northern right whale	E LOW	X X X	-	-	-	-
	Northern right-whale dolphin	MODERATE	X X X X X X X X X X X X	-	-	-	-
	Pacific white-sided dolphin	MODERATE	X X X X X X X X X X X X	-	-	-	-
	Pygmy sperm whale	LOW	X X X X X X X X X X X X	-	-	-	-
	Risso's dolphin	MODERATE	X X X X X X X X X X X X	-	-	-	-
	Sei whale	E LOW	X X X X X X X X X X X X	-	SEP-MAR	-	-
	Short-beaked common dolphin	MODERATE	X X X X X X X X X X X X	-	-	-	-
	Short-finned pilot whale	LOW	X X X X X X X X X X X X	-	-	-	-
	Sperm whale	E LOW	X X X X X X X X X X X X	MAR-JUN	JUN-OCT	-	-
	Steller sea lion	T LOW	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	Interneesting	Juveniles	Adults
76	California red-legged frog	T	X X X X X	-	-	-	JUN-OCT	-
688	Leatherback sea turtle	E MODERATE	X X X X X X	-	-	-	-	MAY-NOV
693	Leatherback sea turtle	E LOW	X X X X X X X	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

ALERT:

ID#	Description
1	Seabird colony, February-August.
2	Keep out of kelp when transiting. Note potential presence of sea otters if operating outboard motor.
3	California sea lion haulout year-round.

SAMPLING SITE:

HUN#	Name	Contact	Phone
143	PISCO:QUALITATIVE	STEVE LONHART	831/647-4222

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
183	JOSHUA CREEK CANYON ER	CA DEPT OF FISH AND GAME	

MARINE SANCTUARY:

HUN#	Name	Contact	Phone
219	MONTEREY BAY NATIONAL MARINE SANCTUARY	SUPERINTENDENT	831/647-4201

PARK:

HUN#	Name	Contact	Phone
240	GARRAPATA SP	CA DEPT OF PARKS AND RECREATION	

WATER INTAKE:

HUN#	Name	Contact	Phone
338	GRANITE CANYON RESEARCH FACILITY		

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
351	CALIFORNIA SEA OTTER GAME REFUGE	CDF&G	

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