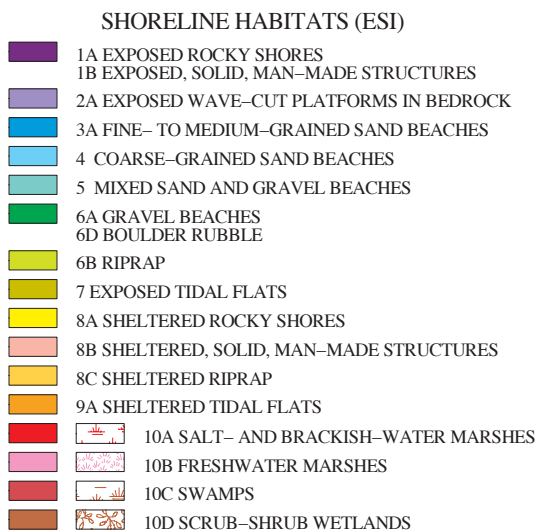
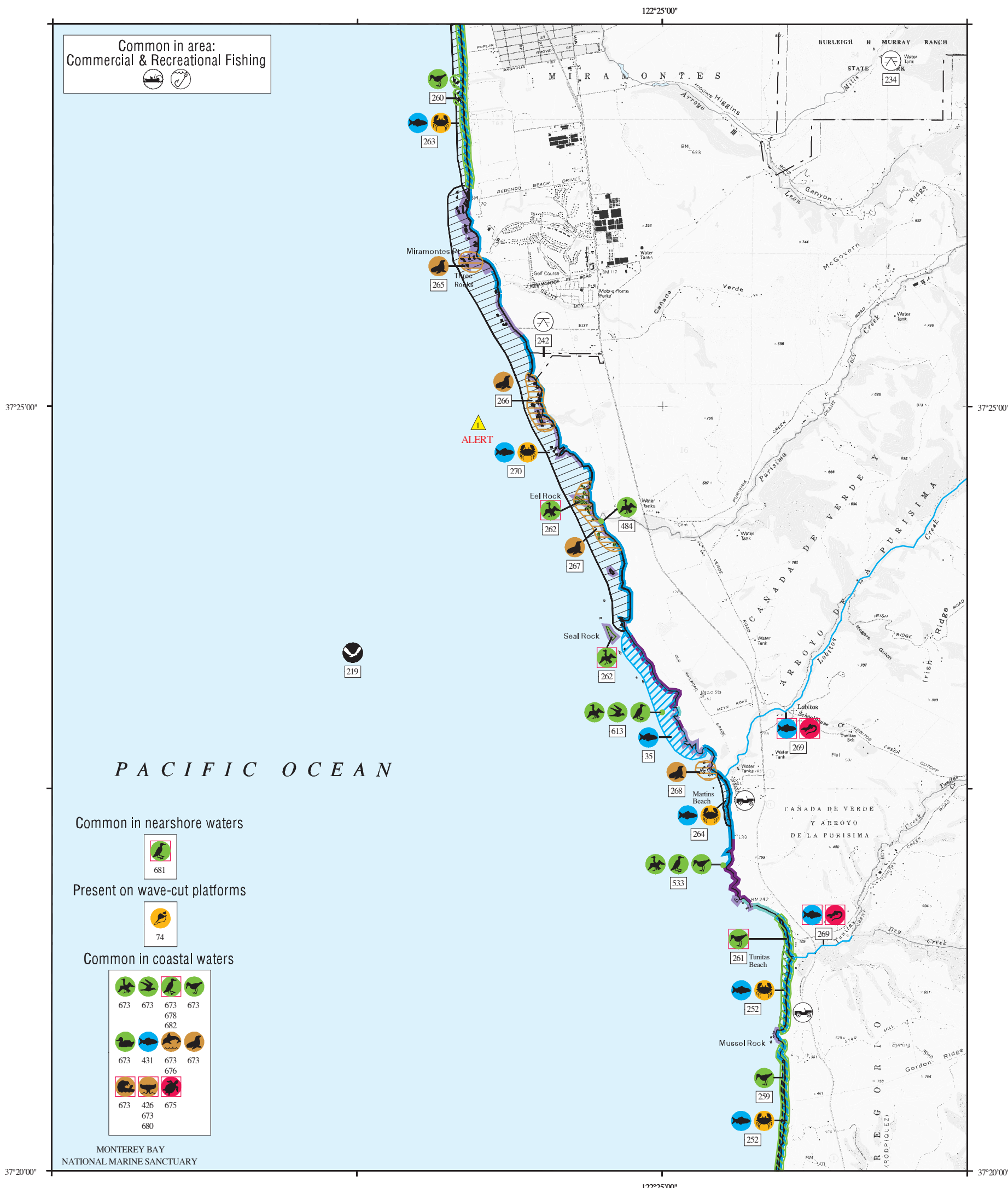
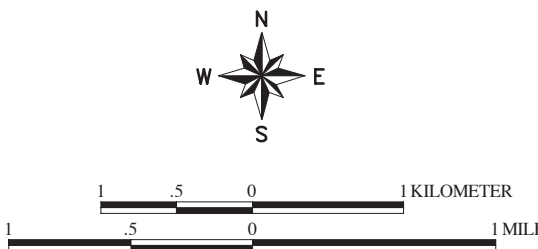


ENVIRONMENTAL SENSITIVITY INDEX MAP



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

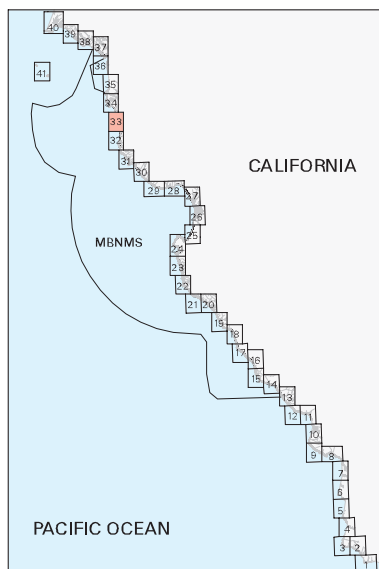


SCALE 1:50000

Not For Navigation

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and
Office of Spill Prevention and Response
California Department of Fish and Game



Central California ESI-33

Central California: ESIMAP 33

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
-----	-----	-----	-	-	-	-	-	-	-	-	-	-	-	-	-----	-----	-----
259	Shorebirds		X	X	X	X	X		X	X	X	X	X	X	-	-	-
260	Shorebirds		X	X	X	X	X		X	X	X	X	X	X	-	-	-
261	Shorebirds		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Western snowy plover	T LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
262	Brown pelican	E E 64-218 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-NOV	-
484	Pelagic cormorant	9 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
533	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pelagic cormorant	108 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	20 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
613	Brandt's cormorant	37 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Pelagic cormorant	123 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	12 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	-	-
673	Cassin's auklet	LOW	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	-
	Pacific loon	MODERATE	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	LOW		X	X	X	X	X	X	X					-	-	-
	Rhinoceros auklet	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shearwaters	LOW-HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	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	-
678	Marbled murrelet	E T MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
681	Marbled murrelet	E T HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
682	Sooty shearwater	MODERATE		X	X	X	X	X	X	X	X	X			-	-	APR-OCT

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
-----	-----	-----	-	-	-	-	-	-	-	-	-	-	-	-	-----	-----	-----	-----	-----
35	Black-and-yellow rockfish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	MAY-JUL	JAN-DEC
	Cabezon		X	X	X	X	X	X	X	X	X	X	X	X	OCT-APR	-	-	JAN-DEC	JAN-DEC
	Calico surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	MAR-NOV
	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
	Lingcod		X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	DEC-APR	-	JAN-DEC	JAN-DEC
	Monkeyface prickleback		X	X	X	X	X	X	X	X	X	X	X	X	JAN-APR	-	-	JAN-DEC	JAN-DEC
	Rubberlip seaperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Striped seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	-	JAN-DEC
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
252	Barred surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	MAR-NOV
	California grunion			X	X	X	X	X	X	X					MAR-AUG	MAR-SEP	-	-	MAR-AUG
	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	NOV-JUN	NOV-JUN	APR-NOV	NOV-JUN
	Night smelt		X	X	X	X	X								JAN-JUN	-	-	-	JAN-JUN
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	Striped bass			X	X	X	X	X							-	-	-	MAY-SEP	MAY-SEP
	Surf smelt			X	X	X	X	X	X						APR-SEP	-	-	-	APR-SEP
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	White seabass			X	X	X	X	X	X	X	X	X			APR-AUG	-	-	-	MAR-NOV
263	Barred surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	MAR-NOV
	California grunion			X	X	X	X	X	X						MAR-AUG	MAR-SEP	-	-	MAR-AUG
	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	NOV-JUN	NOV-JUN	APR-NOV	NOV-JUN
	Night smelt		X	X	X	X	X								JAN-JUN	-	-	-	JAN-JUN
	Striped bass			X	X	X	X	X							-	-	-	MAY-SEP	MAY-SEP
	Surf smelt			X	X	X	X	X							APR-SEP	-	-	-	APR-SEP
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	White seabass			X	X	X	X	X	X	X	X				APR-AUG	-	-	-	MAR-NOV
264	Barred surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	MAR-NOV
	California grunion			X	X	X	X	X	X						MAR-AUG	MAR-SEP	-	-	MAR-AUG
	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	NOV-JUN	NOV-JUN	APR-NOV	NOV-JUN
	Night smelt		X	X	X	X	X								JAN-JUN	-	-	-	JAN-JUN
	Striped bass			X	X	X	X	X							-	-	-	MAY-SEP	MAY-SEP
	Surf smelt			X	X	X	X	X	X						APR-SEP	-	-	-	APR-SEP
	White seabass			X	X	X	X	X	X	X	X				APR-AUG	-	-	-	MAR-NOV
269	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JUN-OCT	OCT-JUN
270	Barred surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	MAR-NOV
	Black-and-yellow rockfish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	MAY-JUL	JAN-DEC
	Cabezon		X	X	X	X	X	X	X	X	X	X	X	X	OCT-APR	-	-	JAN-DEC	JAN-DEC
	Calico surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	MAR-NOV
	California grunion			X	X	X	X	X	X						MAR-AUG	MAR-SEP	-	-	MAR-AUG
	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
	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	NOV-JUN	NOV-JUN	APR-NOV	NOV-JUN
	Lingcod		X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	DEC-APR	-	JAN-DEC	JAN-DEC
	Monkeyface prickleback		X	X	X	X	X	X	X	X	X	X	X	X	JAN-APR	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	Rubberlip seaperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Striped bass			X	X	X	X	X							-	-	-	MAY-SEP	MAY-SEP
	Striped seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	-	JAN-DEC
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	White seabass			X	X	X	X	X	X	X	X				APR-AUG	-	-	-	MAR-NOV
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	FEB-AUG
431	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							-	-	-	-	APR-SEP
	White shark		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

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
252	Dungeness crab					X	X	X							-	-	-	-	JUN-SEP
263	Dungeness crab					X	X	X							-	-	-	-	JUN-SEP
264	Dungeness crab					X	X	X							-	-	-	-	JUN-SEP
270	Dungeness crab					X	X	X	X						-	-	-	-	JUN-SEP

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
-----	-----	-----	-	-	-	-	-	-	-	-	-	-	-	-	-----	-----	-----	-----
265	Harbor seal	80-100 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	-

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 impactsto protected species.

Central California: ESIMAP 33 (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
266	Harbor seal	139-273 INDIV.	X X X X X X X X X X X X	-	-	MAR-JUN	-
267	Harbor seal	51-69 INDIV.	X X X X X X X X X X X X	-	-	MAR-JUN	-
268	Harbor seal	27-41 INDIV.	X X X X X X X X X X X X	-	-	MAR-JUN	-
426	Gray whale		X X X X X X X X	-	DEC-FEB	-	-
673	Bottlenose dolphin	LOW	X X X X X X X X X X X X	-	-	-	-
	Dall's porpoise	LOW	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	-	-	-	-
	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	-	-	-	-
	Pacific white-sided dolphin	LOW	X X X X X X X X X X X X	-	-	-	-
	Risso's dolphin	LOW	X X X X X X X X X X X X	-	-	-	-
	Sea lions	LOW-MODERATE	X X X X X X X X X X X X	-	-	-	-
	Sea otter	T LOW	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	-	-	-	-
676	Harbor porpoise	8500 INDIV.	X X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
680	Blue whale	E LOW	X X X X X X X X	-	-	-	-
	Humpback whale	E MODERATE	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
269	California red-legged frog	T	X X X X X	-	-	-	JUN-OCT	-
	San Francisco garter snake	E E	X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
675	Leatherback sea turtle	E MODERATE	X X X X X X X	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

ALERT:

ID#	Description
1	Harbor seal breeding area, March-July.

MARINE SANCTUARY:

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

PARK:

HUN#	Name	Contact	Phone
234	BURLEIGH H. MURRAY RANCH	CA DEPT OF PARKS AND RECREATION	
242	HALF MOON BAY SB	CA DEPT OF PARKS AND RECREATION	