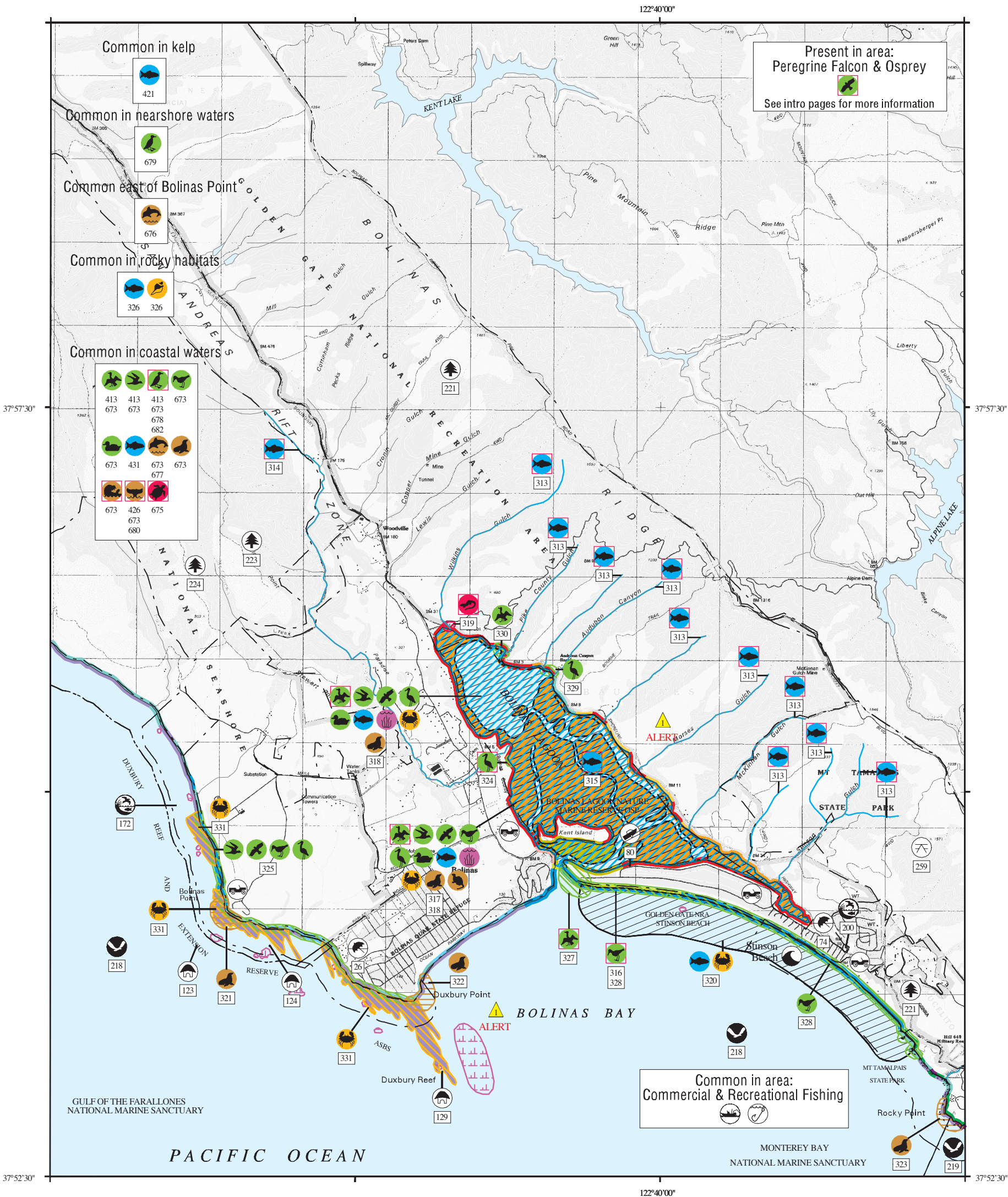
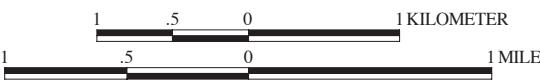


ENVIRONMENTAL SENSITIVITY INDEX MAP



- 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

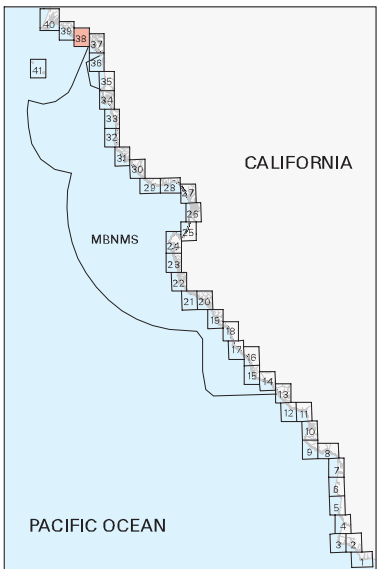


SCALE 1:50000

Not For Navigation

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



Central California: ESIMAP 38

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Migrating	Molting
316	Western snowy plover	T MEDIUM	X X X X X X X X X X	-	-	-
317	Shorebirds		X X X X X X X X X X	-	-	-
318	Brandt's cormorant	HIGH	X X X X X X X X X X	-	-	-
	Brown pelican	E E 17-5000 INDIV.	X X X X X X X X X X	-	JUL-NOV	-
	Dabbling ducks		X X X X X X X X	-	SEP-MAR	-
	Diving birds		X X X X X X X X X X	-	-	-
	Diving ducks	HIGH	X X X X X X X X X	-	SEP-MAY	-
	Gulls		X X X X X X X X X X	-	-	-
	Osprey		X X X X X X X X X X	-	FEB-JUL	-
	Raptors		X X X X X X X X X X	-	AUG-NOV	-
	Wading birds	HIGH	X X X X X X X X X X	-	-	-
324	California black rail	T	X X X X X X X X X X	MAR-JUN	-	-
325	Gulls		X X X X X X X X X X	-	-	-
	Raptors		X X X X X X X X X X	-	AUG-NOV	-
	Shorebirds		X X X X X X X X X X	-	-	-
	Wading birds		X X X X X X X X X X	-	-	-
327	Brown pelican	E E	X X X X X X X X X X	-	JUL-NOV	-
328	Shorebirds		X X X X X X X X X X	-	-	-
329	Wading birds	HIGH	X X X X X X X X X X	FEB-AUG	-	-
330	Double-crested cormorant	1 INDIV.	X X X X X X X X X	-	-	-
413	Diving birds	15000 INDIV.	X X X X X X X	FEB-AUG	-	-
	Gulls	20000 INDIV.	X X X X X X X	FEB-AUG	-	-
	Seabirds	300000 INDIV.	X X X X X X X	FEB-AUG	-	-
673	Cassin's auklet	LOW	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	-	-	JUL-SEP
	Cormorants	MODERATE	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	-	-	-
	Horned grebe	LOW	X X X X X X X X	-	OCT-APR	-
	Pacific loon	MODERATE	X X X X X X X X	-	OCT-MAY	-
	Pelicans	MODERATE	X X X X X X X X X	-	JUL-NOV	-
	Phalaropes	LOW	X X X X X X X X X X	-	-	-
	Pigeon guillemot	LOW	X X X X X X X X	-	-	-
	Rhinoceros auklet	MODERATE	X X X X X X X X X X	-	-	-
	Shearwaters	LOW-HIGH	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 X	-	MAR-APR OCT-NOV	-
678	Marbled murrelet	E T MODERATE	X X X X X X X X X X	APR-JUL	-	-
679	Sooty shearwater	HIGH	X X X X X X X X	-	-	JUN-SEP
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
313	Steelhead	T	X X X X X X X X X X	NOV-APR	NOV-APR	NOV-JUN	JAN-DEC	NOV-APR
314	Coho salmon	E E LOW	X X X X X X X X X X	NOV-FEB	NOV-FEB	DEC-MAR	JAN-DEC	NOV-FEB
	Steelhead	T HIGH	X X X X X X X X X X	NOV-APR	NOV-APR	NOV-JUN	JAN-DEC	NOV-APR
315	Coho salmon	E E	X X X X X X X X X X	-	-	-	JAN-DEC	NOV-FEB
	Nursery fish		X X X X X X X X X X	-	-	-	JAN-DEC	-
	Steelhead	T	X X X X X X X X X X	-	-	-	JAN-DEC	NOV-APR
	Surfperch		X X X X X X X X X X	-	-	-	JAN-DEC	-
318	Pacific herring	LOW	X X X X X X X X X X	JAN-APR	JAN-MAY	JAN-MAY	JAN-DEC	JAN-APR
320	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	NOV-JUN	NOV-JUN	NOV-JUN	APR-NOV	NOV-JUN
	Striped bass		X X X X X	-	-	-	MAY-SEP	MAY-SEP
	White seabass		X X X X X X X X X	APR-AUG	-	-	-	MAR-NOV
326	Cabazon		X X X X X X X X X X	OCT-APR	-	-	JAN-DEC	JAN-DEC
	Lingcod		X X X X X X X X X X	NOV-APR	DEC-APR	-	JAN-DEC	JAN-DEC
	Monkeyface prickpleback		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	-	-	-	-	JAN-DEC
	Striped seaperch		X X X X X X X X X X	MAY-JUN	-	-	-	JAN-DEC
421	Black rockfish		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	MAR-JUN	-	-	MAY-JUL	JAN-DEC
	Blue rockfish		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	-	-	-	JAN-DEC	-
	Canary rockfish (orange)		X X X X X X X X X X	-	-	-	JAN-DEC	-
	China rockfish		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	FEB-APR	-	-	APR-JUL	JAN-DEC
	Gopher rockfish		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	JAN-MAR	-	-	MAY-JUL	JAN-DEC
	Kelp rockfish		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	JAN-MAR	-	-	APR-JUL	JAN-DEC
	Vermilion rockfish		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	-	-	-	JAN-DEC	-
	Yellowtail rockfish		X X X X X X X X X X	-	-	-	JAN-DEC	-
431	California halibut		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	-	-	-	-	JAN-DEC

HABITAT:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
318	Eelgrass		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
318	Invertebrates		X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
320	Dungeness crab		X X X X	-	-	-	-	JUN-SEP
326	Black abalone		X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
331	Invertebrates	HIGH	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
318	Harbor seal	348-531 INDIV.	X X X X X X X X X X	-	-	MAR-JUN	-
321	Harbor seal	45 INDIV.	X X X X X X X X X X	-	-	MAR-JUN	-
322	Harbor seal	60-230 INDIV.	X X X X X X X X X X	-	-	MAR-JUN	-
323	California sea lion	16 INDIV.	X X X X X X X X X X	-	-	-	-
426	Gray whale		X X X X X X X	-	DEC-FEB	-	-
673	Bottlenose dolphin	LOW	X X X X X X X X X X	-	-	-	-
	Dall's porpoise	LOW	X X X X X X X X X X	-	-	-	-
	Fin whale	E LOW	X X 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.

Central California: ESIMAP 38 (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
673	Killer whale	LOW	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	-	-	-	-
	Minke whale	MODERATE	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	-	-	-	-
	Risso's dolphin	LOW	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	-	-	-	-
	Sea otter	T LOW	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	-	-	-	-
	Short-beaked common dolphin	LOW	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	-	-	-	-
676	Harbor porpoise	8500 INDIV.	X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
677	Harbor porpoise	MODERATE	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	-	-	-	-
	Humpback whale	E MODERATE	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
319	California red-legged frog	T	X X X X X X X X X X X	NOV-APR	-	-	JAN-DEC	JAN-DEC
	San Francisco garter snake	E E	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

TERRESTRIAL MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
317	Northern river otter		X X X X X X X X X X X

HUMAN USE RESOURCES:

ALERT:

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

BEACH:

HUN#	Name	Contact	Phone
26	AGATE BEACH PARK		
74	STINSON BEACH		

BOAT RAMP:

HUN#	Name	Contact	Phone
80	BOAT RAMP		

SAMPLING SITE:

HUN#	Name	Contact	Phone
123	PISCO:BOLINAS POINT, NPS	PETE RAIMONDI	831/459-5674
124	PISCO:BOLINAS WRECK	PETE RAIMONDI	831/459-5674
129	PISCO:GFNMS	JAN ROLETTO	415/561-6622

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
172	DUXBURY REEF - SMCA	CDF&G	
200	STINSON BEACH	CA DEPT OF FISH AND GAME	

MARINE SANCTUARY:

HUN#	Name	Contact	Phone
218	GULF OF THE FARALLONES NMS	NOAA	415/561-6622
219	MONTEREY BAY NATIONAL MARINE SANCTUARY	SUPERINTENDENT	831/647-4201

NATIONAL PARK:

HUN#	Name	Contact	Phone
221	GOLDEN GATE NATIONAL RECREATION AREA	NATIONAL PARK SERVICE	415/561-4700
223	PHILIP BURTON WILDERNESS	NATIONAL PARK SERVICE	415/464-5100
224	POINT REYES NATIONAL SEASHORE	NATIONAL PARK SERVICE	415/464-5100

PARK:

HUN#	Name	Contact	Phone
259	MOUNT TAMALPAIS SP	CA DEPT OF PARKS AND RECREATION	