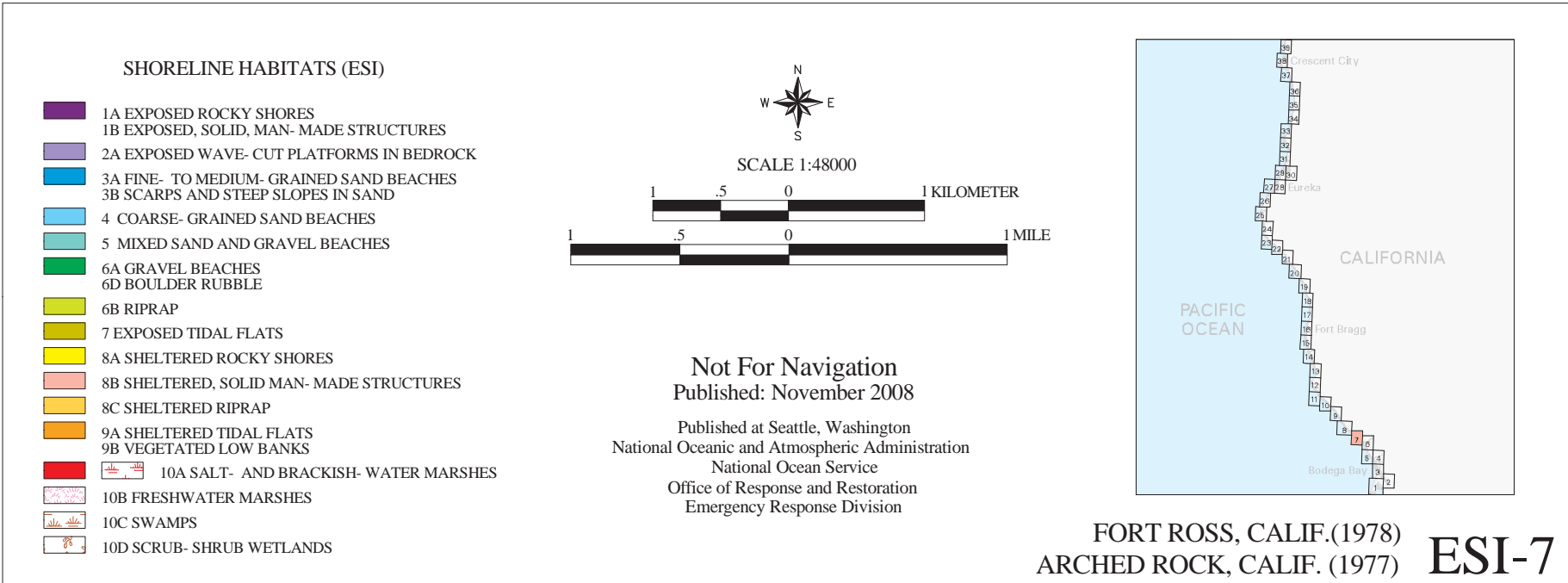
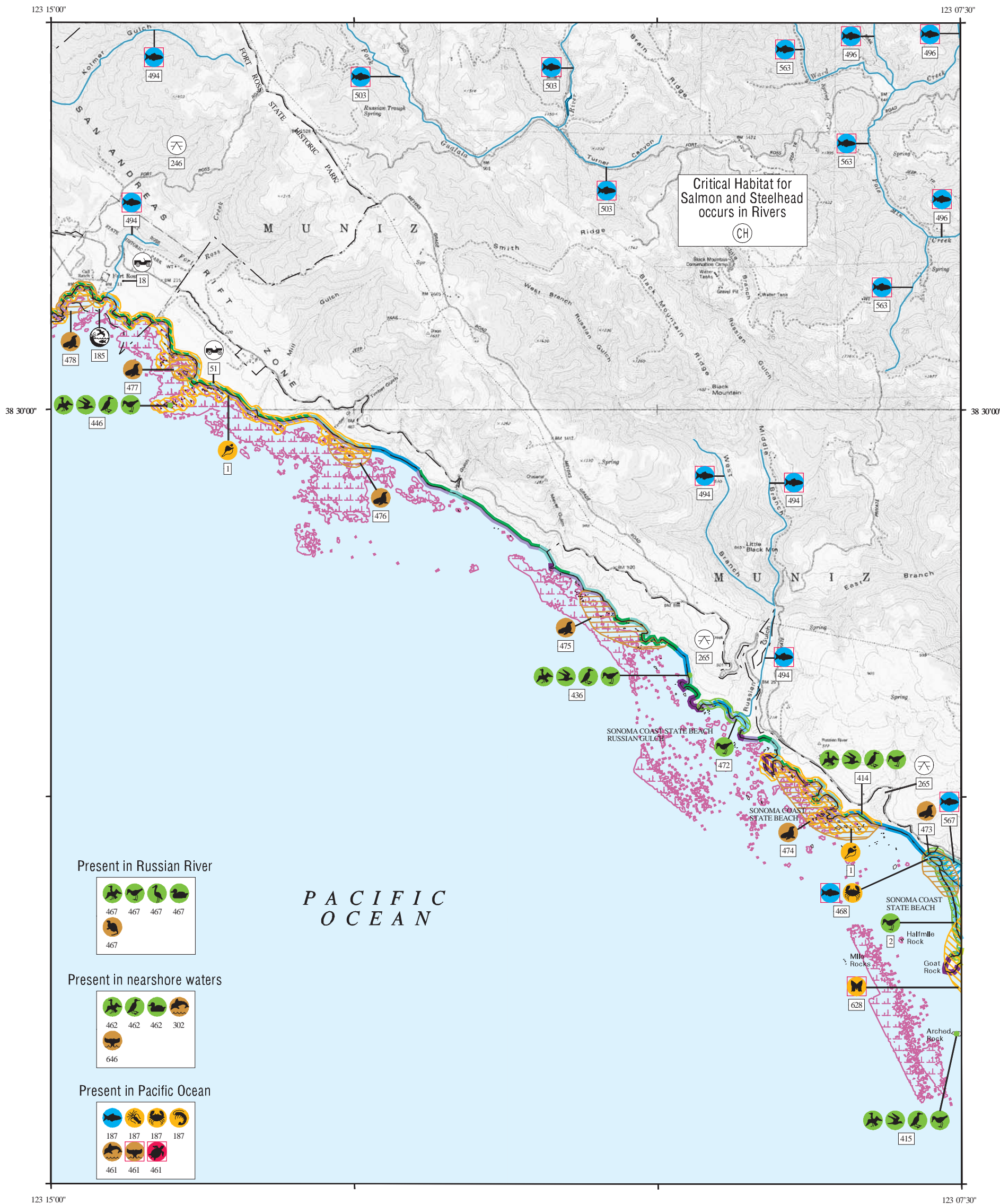


# ENVIRONMENTAL SENSITIVITY INDEX MAP



Northern California: ESIMAP 7

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
2	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
414	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	31 NESTS		X	X	X	X	X	X	X	X				MAR-AUG	-	-
	Double-crested cormorant	119 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	125 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	5 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	44 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
415	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	218 NESTS		X	X	X	X	X	X	X					MAR-AUG	-	-
	Pelagic cormorant	9 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	2 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Tufted puffin	2 INDIV.		X	X	X	X	X	X						MAY-SEP	-	-
	Western gull	34 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
436	Black oystercatcher	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	40 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	227 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	20 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	42 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
446	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	40 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	2 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
462	Black scoter		X	X	X	X								X	X	-	-
	Brandt's cormorant			X	X	X	X	X	X	X						-	-
	Clark's grebe		X	X	X	X					X	X	X			-	-
	Common loon		X	X	X	X				X	X	X	X			-	-
	Common murre		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		-	-
	Eared grebe		X	X	X	X				X	X	X	X			-	-
	Horned grebe		X	X	X	X				X	X	X				-	-
	Pacific loon			X	X	X				X	X					-	-
	Pelagic cormorant		X	X	X	X	X	X	X	X	X	X	X	X		-	-
	Red-throated loon		X	X	X	X	X			X	X					-	-
	Surf scoter		X	X	X	X				X	X	X	X			-	-
	Western grebe		X	X	X	X	X			X	X	X	X			-	-
	White-winged scoter		X	X	X	X				X	X	X				-	-
467	Brandt's cormorant			X	X	X	X	X	X	X	X					-	-
	Clark's grebe		X	X	X	X				X	X	X				-	-
	Common loon		X	X	X	X				X	X	X	X			-	-
	Dabbling ducks		X	X	X	X				X	X	X				-	-
	Diving ducks		X	X	X	X				X	X	X				-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X		-	-
	Eared grebe		X	X	X	X				X	X	X	X			-	-
	Horned grebe		X	X	X	X				X	X	X				-	-
	Pacific loon			X	X	X				X	X					-	-
	Red-breasted merganser		X	X	X	X	X			X	X					-	-
	Red-throated loon		X	X	X	X				X	X					-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X			MAR-APR JUL-OCT	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X		-	-
	Western grebe		X	X	X	X				X	X	X	X			-	-
472	Sanderling		X	X	X	X		X	X	X	X	X				-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X			MAR-APR JUL-OCT	-
	Willet		X	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
187	Bat ray				X	X	X	X	X	X	X	X	X		-	-	-	MAR-NOV	MAR-NOV
	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	SEP-NOV	-	JAN-MAY	JAN-DEC	JAN-DEC
	Black-and-yellow rockfish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	MAR-MAY	JAN-DEC	JAN-DEC
	Blue rockfish		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Bocaccio		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	JAN-MAY	FEB-MAY	JAN-DEC	JAN-DEC
	Brown rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Brown smoothhound		X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	JAN-SEP	JAN-SEP	JAN-DEC	FEB-OCT
	California skate		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Canary rockfish (orange)		X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-MAR	DEC-APR	JAN-DEC	JAN-DEC
	Chilipepper		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	NOV-JUN	JAN-JUN	JAN-DEC	JAN-DEC
	China rockfish		X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUL	-	-	JAN-DEC	JAN-DEC
	Chinook salmon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coho salmon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Copper rockfish		X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	FEB-APR	FEB-APR	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Grass rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-MAR	JAN-JUN	JAN-DEC	JAN-DEC
	Gray smoothhound				X	X	X	X							-	-	-	-	JUN-SEP
	Green sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-AUG	JAN-DEC	JAN-DEC	JAN-DEC
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	-	-	JAN-DEC	JAN-DEC
	Leopard shark		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	JAN-DEC	OCT-JUN
	Lingcod		X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	DEC-FEB	FEB-APR	JAN-DEC	JAN-DEC
	Longnose skate		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Monkeyface prickleback		X	X	X	X	X	X	X	X	X	X	X	X	JAN-APR	-	-	JAN-DEC	JAN-DEC
	Northern anchovy				X	X	X	X	X						-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	X	X	X	X	X	X		X	X			NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
	Pacific sanddab		X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	-	-	JAN-DEC	JAN-DEC
	Pacific sardine				X	X	X								-	-	-	-	JUN-AUG
	Quillback rockfish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	JAN-DEC	JAN-DEC
	Rock greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sand sole		X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUL	-	-	JAN-DEC	JAN-DEC
	Sandpaper skate		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sevengill shark			X	X	X	X	X	X	X	X				-	-	-	-	MAR-NOV
	Sixgill shark		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	-	-	JAN-DEC	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	-	AUG-DEC	JAN-DEC	JAN-DEC
	Spiny dogfish		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	JAN-DEC	JAN-DEC
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	NOV-FEB	-	-	JAN-DEC	JAN-DEC
	Steelhead		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Topsmelt		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	MAY-AUG	JAN-DEC	JAN-DEC
	Vermilion rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	-	-	JAN-DEC	JAN-DEC
	Yellowtail rockfish		X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUL	JAN-JUL	JAN-JUL	JAN-DEC	JAN-DEC
468	American shad			X	X	X	X	X	X						-	-	-	JUL-NOV	APR-JUL
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-MAY	JAN-DEC	-
	Green sturgeon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch			X	X	X	X	X	X	X					APR-NOV	-	-	APR-NOV	APR-NOV

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.

Northern California: ESIMAP 7 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH: (cont.)

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
468	Silver surfperch		X X X X X X X X X X X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Starry flounder		X X X X X X X X X X X	-	-	FEB-NOV	JAN-DEC	JAN-DEC
	Striped bass		X X X X X X	-	-	-	-	APR-OCT
	Walleye surfperch		X X X X X X X X X X X	APR-JUN NOV-DEC	-	-	APR-FEB	JAN-DEC
	White seaperch		X X X X X X X X X X X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
494	Steelhead	T	X X X X X X X X X X X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR
496	Steelhead	T	X X X X X X X X X	-	-	-	-	OCT-APR
503	Steelhead	T	X X X X X X X X X X X	JAN-MAR	JAN-APR	JAN-MAY	JAN-DEC	NOV-MAR
563	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-MAY
567	Chinook salmon	T	X X X X X X X X X X X	-	-	-	JAN-SEP	OCT-FEB
	Coho salmon	E E	X X X X X X X X X X X	NOV-JAN	DEC-MAR	MAR-APR	JAN-DEC	NOV-JAN
	Steelhead	T	X X X X X X X	DEC-MAR	-	-	-	DEC-MAR

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
1	Red abalone		X X X X X X X X X X X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
187	California market squid		X X X X X X X X X X X	APR-NOV	APR-NOV	APR-JAN	JAN-DEC	JAN-DEC
	Dungeness crab		X X X X X X X X X X X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X X X X X X X X X X X	SEP-OCT	OCT-APR	MAR-JUL	JAN-DEC	JAN-DEC
	Spot prawn		X X X X X X X X X X X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
468	Dungeness crab		X X X X X X X X X X X	-	-	APR-JUN	JAN-DEC	JAN-DEC
628	Myrtle's silverspot	E	X X X X X X X X X X	AUG-SEP	AUG-NOV	MAR-MAY	-	AUG-SEP

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
302	Harbor porpoise	MODERATE	X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
461	Blue whale	E LOW	X X X X X X X X X	-	-	-	-
	Humpback whale	E MODERATE	X X X X X	-	-	-	-
	Killer whale	LOW	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X X X X X X X X X X X	-	-	-	-
473	Harbor seal	45-315 INDIV.	X X X X X X X X X X X	-	-	-	-
	Northern elephant seal	1 INDIV.	X X X X X X X X X X X	-	-	-	-
474	Harbor seal	46 INDIV.	X X X X X X X X X X X	-	-	-	-
475	Harbor seal	20-46 INDIV.	X X X X X X X X X X X	-	-	-	-
476	Harbor seal	5-17 INDIV.	X X X X X X X X X X X	-	-	-	-
477	Harbor seal	30-34 INDIV.	X X X X X X X X X X X	-	-	-	-
478	Harbor seal	48-70 INDIV.	X X X X X X X X X X X	-	-	-	-
646	Gray whale		X X X X X X X	-	DEC-FEB	-	-

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Internesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW	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
467	Northern river otter		X X X X X X X X X X X

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
18	FORT ROSS	CDFG	
51	THE REEF CAMPGROUND	CDFG	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
185	FORT ROSS SMCA	CDFG	

PARK:

HUN#	Name	Contact	Phone
246	FORT ROSS SHP	CDPR	707/847-3286
265	SONOMA COAST SB	CDPR	707/875-3483