

Northern California: ESIMAP 1

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
98	American coot		X	X	X	X	X			X	X	X	X		-	-	-
	American wigeon		X	X	X	X				X	X	X			-	-	-
	Black scoter		X	X	X	X						X	X		-	-	-
	Brandt's cormorant					X	X	X	X	X	X	X	X		-	-	-
	Brant		X	X	X	X					X	X	X		-	-	-
	Bufflehead	HIGH	X	X	X	X						X	X		-	-	-
	Clark's grebe		X	X	X	X					X	X	X		-	-	-
	Common goldeneye		X	X	X	X						X	X	X		-	-
	Common loon		X	X	X	X	X			X	X	X	X		-	-	-
	Double-crested cormorant	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Eared grebe	HIGH	X	X	X	X					X	X	X	X	-	-	-
	Forster's tern			X	X	X	X	X	X	X	X	X			-	-	-
	Greater scaup	VERY HIGH	X	X	X	X					X	X	X		-	-	-
	Horned grebe	HIGH	X	X	X	X					X	X	X		-	-	-
	Pacific loon					X	X	X				X	X		-	-	-
	Red phalarope					X	X	X	X	X	X	X	X		-	-	-
	Red-breasted merganser		X	X	X	X	X					X	X		-	-	-
	Red-throated loon		X	X	X	X	X					X	X		-	-	-
	Ruddy duck		X	X	X	X					X	X	X		-	-	-
	Surf scoter	VERY HIGH	X	X	X	X					X	X	X	X	-	-	-
	Western grebe	HIGH	X	X	X	X	X				X	X	X	X	-	-	-
	White-winged scoter		X	X	X	X						X	X	X	-	-	-
386	American bittern		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
	American white pelican		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-NOV	-
	Dabbling ducks		X	X	X	X	X				X	X	X	X	-	SEP-MAR	-
	Diving ducks		X	X	X	X					X	X	X	X	-	SEP-MAY	-
	Geese		X	X	X	X	X	X	X	X	X	X	X	X	-	OCT-MAR	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	X	-	AUG-NOV	-
387	Western snowy plover	T	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
388	Shorebirds		X	X	X	X				X	X	X	X	X	-	-	-
389	Brown pelican	E E 108-288 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-NOV	-
	Seabirds	HIGH		X	X	X	X	X	X						FEB-AUG	-	-
390	Western snowy plover	T	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
391	American bittern		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
	Common yellowthroat		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	APR-MAY	-
																SEP-OCT	
	Dabbling ducks		X	X	X	X	X				X	X	X	X	-	SEP-MAR	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
392	American white pelican		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-NOV	-
	Ducks	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	SEP-MAR	-
393	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-
	American white pelican		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brant	HIGH		X	X	X	X	X				X	X	X	-	FEB-JUN	-
																OCT-DEC	
	Diving birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	FEB-JUL	-
	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
394	Brown pelican	E E 0-1000 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-NOV	-
396	Shorebirds		X	X	X	X	X			X	X	X	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
400	Western snowy plover	T	X	X	X	X				X	X	X	X	X	-	-	-
407	Shorebirds		X	X	X	X	X			X	X	X	X	X	-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X			FEB-AUG	-	-
623	Tricolored blackbird		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
624	Saltmarsh common yellowthroat					X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
627	Burrowing owl		X	X									X	X	-	-	-
643	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	-	-
648	Ashy storm-petrel	15 INDIV.		X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-
	Black oystercatcher	6 INDIV.		X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Brandt's cormorant	1522 INDIV.		X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Common murre	15155 INDIV.		X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-
	Pelagic cormorant	266 INDIV.		X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
	Pigeon guillemot	616 INDIV.		X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
	Rhinoceros auklet			X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-
	Tufted puffin	4 INDIV.		X	X	X	X	X	X	X	X	X	X	X	APR-NOV	-	-
	Western gull	178 INDIV.		X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
651	Cassin's auklet	LOW		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	-	-	JUL-SEP
	Cormorants	MODERATE		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	-	-	-
	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	-	-	-
	Pigeon guillemot	LOW		X	X	X	X	X	X	X					-	-	-
	Rhinoceros auklet	MODERATE		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	-	-	-
	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	
654	Marbled murrelet	E T MODERATE		X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
656	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
95	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-APR	JAN-DEC	-
	Coho salmon	E E	X	X	X	X	X			X	X	X			-	-	-	MAR-JUN	OCT-MAR
	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
	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-AUG	JAN-DEC	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							-	-	FEB-MAR	APR-AUG	-
	Northern anchovy		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

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 1 (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
95	Shiner surfperch					X	X	X	X	X	X	X	X		APR-NOV	-	-	APR-NOV	APR-NOV
	Silver surfperch		X	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	X	-	-	FEB-NOV	JAN-DEC	JAN-DEC
	Steelhead	T	X	X	X		X	X	X	X		X	X	X	-	-	-	MAY-AUG	OCT-MAR
	Striped bass					X	X	X	X	X					-	-	-	-	MAY-SEP
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUN	MAR-AUG	JUN-MAR	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
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	APR-FEB	JAN-DEC
															NOV-DEC				
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	White sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
99	Pacific herring		X	X	X	X	X	X	X	X			X	X	NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
393	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Green sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Steelhead	T	X	X	X									X	DEC-MAR	-	-	-	DEC-MAR
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
401	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
	Striped bass					X	X	X	X	X					-	-	-	MAY-SEP	MAY-SEP
	White seabass					X	X	X	X	X	X	X	X		APR-AUG	-	-	-	MAR-NOV
408	Black-and-yellow rockfish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	MAY-JUL	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
	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-FEB	FEB-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 surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Striped surfperch		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
409	Barred surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	MAR-NOV
	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
	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	NOV-JUN	NOV-JUN	APR-NOV	NOV-JUN
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	JAN-DEC
	Striped bass					X	X	X	X						-	-	-	MAY-SEP	MAY-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			APR-AUG	-	-	-	MAR-NOV
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	FEB-AUG
647	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
95	Bay mussel		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	APR-SEP	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	California butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	JAN-DEC
190	California native oyster		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
393	Pacific littleneck		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	-	JAN-DEC
401	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
402	Globose dune beetle		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
408	Black abalone		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
409	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	MAR-SEP	JUN-SEP	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
390	Harbor seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
393	Harbor seal	2000 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
395	Northern elephant seal	2000 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	-	DEC-MAR	MAY-JUN
403	California sea lion	11-1388 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	292-319 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	-
	Steller sea lion	T 0-13 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
404	Pinnipeds	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
646	Gray whale		X	X	X	X								X	-	DEC-FEB	-	-
651	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 saddleback 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	-	-
	North Pacific 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 saddleback 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	-	-	-	-
653	Harbor porpoise	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
655	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
619	California red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	-	-	JAN-DEC	JAN-DEC
652	Leatherback sea turtle	E HIGH						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
393	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X
397	Point Reyes jumping mouse		X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
2	ACCESS		
3	ACCESS		

Northern California: ESIMAP 1 (cont.)

HUMAN USE RESOURCES: (cont.)

AQUACULTURE:

HUN#	Name	Contact	Phone
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72	DRAKES BEACH AND DRAKES BAY	CDFG	
73	JOHNSON'S DRAKES BAY OYSTER CO.		415/669-1149

BEACH:

HUN#	Name	Contact	Phone
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88	ABBOTTS BEACH		
101	DRAKES BEACH AND DRAKES BAY	CDFG	
104	LIMANTOUR BEACH	CDFG	
111	NORTH BEACH		
121	SOUTH BEACH		

BOAT RAMP:

HUN#	Name	Contact	Phone
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131	BOAT RAMP		

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
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168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
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169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	
171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
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182	ESTERO DE LIMANTOUR SMCA	CDFG	
202	POINT REYES HEADLANDS SMCA	CDFG	

MARINE SANCTUARY:

HUN#	Name	Contact	Phone
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235	GULF OF THE FARALLONES NMS	NOAA	415/561-6622

NATIONAL PARK:

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

PARK:

HUN#	Name	Contact	Phone
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267	TOMALES BAY SP	CDPR	415/669-1140

Northern California: ESIMAP 2

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
94	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Green heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Merlin		X	X	X	X	X			X	X	X	X		-	-	-
	Shorebirds	1000S	X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
97	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American coot		X	X	X	X				X	X	X	X		-	-	-
	American wigeon	HIGH	X	X	X	X				X	X	X			-	-	-
	Brant		X	X	X	X				X	X	X			-	-	-
	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	Bufflehead	VERY HIGH	X	X	X	X				X	X				-	-	-
	Clark's grebe		X	X	X	X				X	X	X			-	-	-
	Double-crested cormorant	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Forster's tern			X	X	X	X	X	X	X	X	X			-	-	-
	Gadwall		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Greater scaup	HIGH	X	X	X	X				X	X	X			-	-	-
	Green-winged teal		X	X	X	X				X	X	X	X		-	-	-
	Horned grebe		X	X	X	X				X	X	X			-	-	-
	Lesser scaup		X	X	X					X	X	X			-	-	-
	Northern pintail	HIGH	X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Ruddy duck	VERY HIGH	X	X	X	X				X	X	X			-	-	-
	Surf scoter	HIGH	X	X	X	X				X	X	X	X		-	-	-
	Western grebe		X	X	X	X				X	X	X	X		-	-	-
98	American coot		X	X	X	X				X	X	X	X		-	-	-
	American wigeon		X	X	X	X				X	X	X			-	-	-
	Black scoter		X	X	X	X				X	X				-	-	-
	Brandt's cormorant				X	X	X	X	X	X	X	X			-	-	-
	Brant		X	X	X	X				X	X	X			-	-	-
	Bufflehead	HIGH	X	X	X	X				X	X				-	-	-
	Clark's grebe		X	X	X	X				X	X	X			-	-	-
	Common goldeneye		X	X	X	X				X	X	X			-	-	-
	Common loon		X	X	X	X	X			X	X	X	X		-	-	-
	Double-crested cormorant	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Eared grebe	HIGH	X	X	X	X				X	X	X	X		-	-	-
	Forster's tern			X	X	X	X	X	X	X	X	X			-	-	-
	Greater scaup	VERY HIGH	X	X	X	X				X	X	X			-	-	-
	Horned grebe	HIGH	X	X	X	X				X	X	X			-	-	-
	Pacific loon				X	X	X			X	X				-	-	-
	Red phalarope				X	X	X	X	X	X	X	X			-	-	-
	Red-breasted merganser		X	X	X	X	X			X	X				-	-	-
	Red-throated loon		X	X	X	X	X			X	X				-	-	-
	Ruddy duck		X	X	X	X				X	X	X			-	-	-
	Surf scoter	VERY HIGH	X	X	X	X				X	X	X	X		-	-	-
	Western grebe	HIGH	X	X	X	X	X			X	X	X	X		-	-	-
	White-winged scoter		X	X	X	X				X	X	X			-	-	-
100	Osprey		X	X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-
622	California black rail	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
624	Saltmarsh common yellowthroat			X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
95	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-APR	JAN-DEC	-
	Coho salmon	E E	X	X	X	X	X			X	X	X			-	-	-	MAR-JUN	OCT-MAR
	English sole		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		-	-	-	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
	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						-	-	FEB-MAR	APR-AUG	-
	Northern anchovy		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Shiner surfperch					X	X	X	X	X	X	X	X		APR-NOV	-	-	APR-NOV	APR-NOV
	Silver surfperch		X	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	X	-	-	FEB-NOV	JAN-DEC	JAN-DEC
	Steelhead	T	X	X	X		X	X	X	X	X	X	X		-	-	-	MAY-AUG	OCT-MAR
	Striped bass					X	X	X	X	X					-	-	-	-	MAY-SEP
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUN	MAR-AUG	JUN-MAR	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
	Walleye surfperch		X	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	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	White sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
99	Pacific herring		X	X	X	X	X	X	X		X	X			NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
101	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
493	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAR
497	Coho salmon	E E	X	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	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR
498	Coho salmon	E E	X	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	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAR
500	Steelhead	T	X	X	X										-	-	-	-	DEC-MAR
561	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR
565	Chinook salmon		X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coho salmon	E E HIGH	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	DEC-MAR	MAR-APR	JAN-DEC	NOV-JAN
	Green sturgeon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Pink salmon		X	X	X	X		X	X	X	X	X	X	X	JUN-OCT	JUL-MAR	-	DEC-APR	JUN-OCT
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	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
95	Bay mussel		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	APR-SEP	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	California butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	JAN-DEC
190	California native oyster		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
633	California freshwater shrimp	E E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	JAN-DEC	JAN-DEC
650	Manila clam		X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-NOV	APR-OCT	JAN-DEC	JAN-DEC
	Mediterranean mussel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Pacific oyster	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

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 2 (cont.)

BIOLOGICAL RESOURCES: (cont.)

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Interesting	Juveniles	Adults
619	California red-legged frog		X X X X X X X X X X X	NOV-APR	-	-	JAN-DEC	JAN-DEC
637	Northwestern pond turtle		X X X X X X X X X X X	APR-JUN	-	-	JAN-DEC	JAN-DEC

TERRESTRIAL MAMMAL:

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

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
75	M-430-05	CDFG, T. MOORE	707/688-3192
76	M-430-06 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192
78	M-430-12 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192
79	M-430-13 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192

BEACH:

HUN#	Name	Contact	Phone
124	TOMALES BAY STATE PARKS	CSP	415/669-1140

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
210	TOMALES BAY ER	CDFG	707/944-5500
211	TOMALES BAY FA	CDFG	
212	TOMALES BAY SMP	CDFG	
215	WHITE HOUSE POOL FA	CDFG	

MARINA:

HUN#	Name	Contact	Phone
221	MARCONI COVE MARINA		

MARINE SANCTUARY:

HUN#	Name	Contact	Phone
235	GULF OF THE FARALLONES NMS	NOAA	415/561-6622

NATIONAL PARK:

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

NATURE CONSERVANCY:

HUN#	Name	Contact	Phone
240	BISHOP PINE PRESERVE	TNC	916/653-5656

PARK:

HUN#	Name	Contact	Phone
253	MARCONI CONFERENCE CENTER SHP	CDPR	415/663-9020
267	TOMALES BAY SP	CDPR	415/669-1140

Northern California: ESIMAP 3

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
			-	-	-	-	-	-	-	-	-	-	-	-			
98	American coot		X	X	X	X	X			X	X	X	X		-	-	-
	American wigeon		X	X	X	X				X	X	X			-	-	-
	Black scoter		X	X	X	X					X	X			-	-	-
	Brandt's cormorant				X	X	X	X	X	X	X	X	X		-	-	-
	Brant		X	X	X	X				X	X	X			-	-	-
	Bufflehead	HIGH	X	X	X	X				X	X				-	-	-
	Clark's grebe		X	X	X	X				X	X	X			-	-	-
	Common goldeneye		X	X	X	X				X	X	X			-	-	-
	Common loon		X	X	X	X	X			X	X	X	X		-	-	-
	Double-crested cormorant	HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Eared grebe	HIGH	X	X	X	X				X	X	X	X		-	-	-
	Forster's tern			X	X	X	X	X	X	X	X				-	-	-
	Greater scaup	VERY HIGH	X	X	X	X				X	X	X			-	-	-
	Horned grebe	HIGH	X	X	X	X				X	X	X			-	-	-
	Pacific loon				X	X	X			X	X				-	-	-
	Red phalarope				X	X	X	X	X	X	X	X			-	-	-
	Red-breasted merganser		X	X	X	X	X			X	X				-	-	-
	Red-throated loon		X	X	X	X	X			X	X				-	-	-
	Ruddy duck		X	X	X	X				X	X	X			-	-	-
	Surf scoter	VERY HIGH	X	X	X	X				X	X	X	X		-	-	-
	Western grebe	HIGH	X	X	X	X	X			X	X	X	X		-	-	-
	White-winged scoter		X	X	X	X				X	X	X			-	-	-
174	Shorebirds	1000S		X	X			X	X	X	X				-	MAR-APR JUL-OCT	-
175	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Green heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
176	Brant	HIGH	X	X	X	X				X	X	X			-	-	-
	Brown pelican	E E 20-50 BIRDS			X	X	X	X	X	X	X	X			-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
177	American coot	HIGH	X	X	X	X	X			X	X	X	X		-	-	-
	American wigeon	HIGH	X	X	X	X				X	X	X			-	-	-
	Brandt's cormorant				X	X	X	X	X	X	X				-	-	-
	Brant	VERY HIGH	X	X	X	X				X	X	X			-	-	-
	Bufflehead	VERY HIGH	X	X	X	X				X	X				-	-	-
	Canvasback		X	X	X					X	X				-	-	-
	Common goldeneye		X	X	X	X				X	X	X			-	-	-
	Common loon		X	X	X	X	X			X	X	X	X		-	-	-
	Double-crested cormorant	HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Eared grebe	HIGH	X	X	X	X				X	X	X	X		-	-	-
	Greater scaup	HIGH	X	X	X	X				X	X	X			-	-	-
	Horned grebe	HIGH	X	X	X	X				X	X	X			-	-	-
	Northern pintail		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Red-breasted merganser		X	X	X	X	X			X	X				-	-	-
	Red-necked grebe	HIGH	X	X	X	X	X			X	X	X	X		-	-	-
	Red-throated loon		X	X	X	X	X			X	X				-	-	-
	Ruddy duck	HIGH	X	X	X	X				X	X	X			-	-	-
	Surf scoter	VERY HIGH	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			-	-	-
178	American coot	HIGH	X	X	X	X	X			X	X	X	X		-	-	-
	American wigeon		X	X	X	X				X	X	X			-	-	-
	Brandt's cormorant				X	X	X	X	X	X	X				-	-	-
	Brant	HIGH	X	X	X	X				X	X	X			-	-	-
	Bufflehead	VERY HIGH	X	X	X	X				X	X				-	-	-
	Common goldeneye		X	X	X	X				X	X	X			-	-	-
	Common loon		X	X	X	X	X			X	X	X	X		-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Eared grebe		X	X	X	X				X	X	X	X		-	-	-
	Forster's tern			X	X	X	X	X	X	X	X				-	-	-
	Greater scaup		X	X	X	X				X	X	X			-	-	-
	Green-winged teal		X	X	X	X				X	X	X	X		-	-	-
	Horned grebe	HIGH	X	X	X	X				X	X	X			-	-	-
	Northern pintail		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Northern shoveler		X	X	X	X				X	X	X	X		-	-	-
	Pelagic cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-breasted merganser		X	X	X	X	X			X	X				-	-	-
	Red-necked grebe		X	X	X	X	X	X	X	X	X	X			-	-	-
	Red-throated loon		X	X	X	X	X			X	X				-	-	-
	Ruddy duck		X	X	X	X				X	X	X			-	-	-
	Surf scoter	VERY HIGH	X	X	X	X				X	X	X	X		-	-	-
	White-winged scoter		X	X	X	X				X	X	X			-	-	-
179	Brown pelican	E E			X	X	X	X	X	X	X	X			-	-	-
	Merlin		X	X	X	X	X			X	X	X	X		-	-	-
180	Western snowy plover	T 75-123 BIRDS	X	X	X	X		X	X	X	X	X	X	X	-	-	-
181	Western snowy plover	T 7-64 BIRDS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
188	Merlin		X	X	X	X	X	X		X	X	X	X		MAR-JUN	-	-
	Northern harrier		X	X	X	X	X			X	X	X	X		-	-	-
189	Brown pelican	E E 50 BIRDS	X	X			X	X	X	X	X	X	X		-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
192	American white pelican		X	X						X	X	X	X	X	-	-	-
	Brown pelican	E E			X	X	X	X	X	X	X	X			-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
386	American bittern		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
	American white pelican		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X		-	JUL-NOV	-
	Dabbling ducks		X	X	X	X	X			X	X	X	X		-	SEP-MAR	-
	Diving ducks		X	X	X	X	X			X	X	X	X		-	SEP-MAY	-
	Geese		X	X	X	X	X	X	X	X	X	X	X		-	OCT-MAR	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	X	-	AUG-NOV	-
387	Western snowy plover	T	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
388	Shorebirds		X	X	X	X	X	X	X	X	X	X	X		-	-	-
418	Ashy storm-petrel	74 INDIV.			X	X	X	X	X	X	X	X			MAY-NOV	-	-
	Black oystercatcher	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X		APR-OCT	-	-
	Brandt's cormorant	275 NESTS			X	X	X	X	X	X	X				MAR-AUG	-	-
	Brown pelican	E E 143 INDIV.			X	X	X	X	X	X	X	X			-	-	-
	Pelagic cormorant	37 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	115 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Rhinoceros auklet	3 INDIV.			X	X	X	X	X	X					APR-AUG	-	-
	Western gull	168 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
419	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	141 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	110 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	-	-

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 3 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
444	Pelagic cormorant	16 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	28 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Western gull	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
622	California black rail	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
623	Tricolored blackbird		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
624	Saltmarsh common yellowthroat					X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
625	California clapper rail	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
651	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	-
654	Marbled murrelet	E T MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
656	Sooty shearwater	MODERATE		X	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
95	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-APR	JAN-DEC	-
	Coho salmon	E E	X	X	X	X	X			X	X	X			-	-	-	MAR-JUN	OCT-MAR
	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
	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-AUG	JAN-DEC	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						-	-	FEB-MAR	APR-AUG	-
	Northern anchovy		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Shiner surfperch				X	X	X	X	X	X	X				APR-NOV	-	-	APR-NOV	APR-NOV
	Silver surfperch		X	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	X	-	-	FEB-NOV	JAN-DEC	JAN-DEC
	Steelhead	T	X	X	X	X	X	X	X	X	X				-	-	-	MAY-AUG	OCT-MAR
	Striped bass				X	X	X	X							-	-	-	-	MAY-SEP
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUN	MAR-AUG	JUN-MAR	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
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	NOV-DEC	-	-	APR-FEB	JAN-DEC
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	White sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
99	Pacific herring		X	X	X	X	X	X	X		X	X			NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
187	Bat ray			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 prickpleback		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	X					-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		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
531	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
561	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR

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 3 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
95	Bay mussel		X X X X X X X X X X X	MAR-AUG	MAR-AUG	APR-SEP	JAN-DEC	JAN-DEC
	California bay shrimp		X X X X X X X X X X X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	California butterclam		X X X X X X X X X X X	MAR-NOV	-	-	-	JAN-DEC
	Dungeness crab		X X X X X X X X X X X	-	-	APR-JUN	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
190	California native oyster		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
191	California jackknife clam		X X X X X X X X X X X	MAY-AUG	MAY-AUG	MAY-AUG	JAN-DEC	JAN-DEC
	Pacific gaper		X X X X X X X X X X X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific littleneck		X X X X X X X X X X X	APR-OCT	APR-NOV	APR-OCT	JAN-DEC	JAN-DEC
	Softshell clam		X X X X X X X X X X X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC
	Washington butterclam		X X X X X X X X X X X	MAR-NOV	-	-	-	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
629	San Bruno elfin butterfly	E	X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
633	California freshwater shrimp	E E	X X X X X X X X X X X	MAR-MAY	-	-	JAN-DEC	JAN-DEC
634	Globose dune beetle		X X X X X X X X X X X	-	-	-	-	JAN-DEC
650	Manila clam		X X X X X X X X X X X	APR-OCT	APR-NOV	APR-OCT	JAN-DEC	JAN-DEC
	Mediterranean mussel		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Pacific oyster	HIGH	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
179	Harbor seal		X X X X X X X X X X X	-	-	-	-
182	Harbor seal	297-492 INDIV.	X X X X X X X X X X X	-	-	-	-
183	Harbor seal	103 INDIV.	X X X X X X X X X X X	-	-	-	-
184	Harbor seal	168 INDIV.	X X X X X X X X X X X	-	-	-	-
185	Harbor seal	408-481 INDIV.	X X X X X X X X X X X	-	-	-	-
186	Harbor seal	14 INDIV.	X X X X X X X X X X X	-	-	-	-
646	Gray whale		X X X X X X X X	-	DEC-FEB	-	-
651	Bottlenose dolphin	LOW	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	-	-	-	-
	Fin whale	E LOW	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	-	-	-	-
	Long-beaked saddleback 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	-	-
	North Pacific 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 saddleback 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	-	-	-	-
653	Harbor porpoise	MODERATE	X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
655	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	Internesting	Juveniles	Adults
619	California red-legged frog		X X X X X X X X X X X	NOV-APR	-	-	JAN-DEC	JAN-DEC
637	Northwestern pond turtle		X X X X X X X X X X X	APR-JUN	-	-	JAN-DEC	JAN-DEC
652	Leatherback sea turtle	E HIGH	X 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
96	Northern river otter		X X X X X X X X X X X
179	Northern river otter		X X X X X X X X X X X
397	Point Reyes jumping mouse		X X X X X X X X X X X

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
74	M-430-02 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192
77	M-430-11 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192
78	M-430-12 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192
80	M-430-14 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192
81	M-430-15 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192
82	M-430-17 AQUACULTURE LEASE	CDFG, T. MOORE	707/688-3192
87	TOMALES BAY AQUACULTURE AND MARICULTURE	CDFG	

BEACH:

HUN#	Name	Contact	Phone
90	AVALIS BEACH	CDFG	
109	MCCLURES BEACH	CDFG	916/445-9338
125	TOMALES BEACH	CDFG	

BOAT RAMP:

HUN#	Name	Contact	Phone
138	MILLER COUNTY PARK	CDFG	
139	MILLER PARK BOAT RAMP	MARIN COUNTY	

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	
171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
188	KEYS CREEK FA	CDFG	

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 3 (cont.)

HUMAN USE RESOURCES: (cont.)

MARINE SANCTUARY:

HUN#	Name	Contact	Phone
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235	GULF OF THE FARALLONES NMS	NOAA	415/561-6622

NATIONAL PARK:

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

PARK:

HUN#	Name	Contact	Phone
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253	MARCONI CONFERENCE CENTER SHP	CDPR	415/663-9020
267	TOMALES BAY SP	CDPR	415/669-1140

Northern California: ESIMAP 4

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
380	Brown pelican	E E				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		-	-	-
	Northern harrier		X	X	X	X	X				X	X	X	X	-	-	-
	Sea ducks		X	X	X	X					X	X	X		-	-	-
	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
381	American avocet		X	X	X	X	X			X	X	X	X	X	-	-	-
	American white pelican		X	X						X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X					X	X	X		-	-	-
	Cinnamon teal		X	X	X						X	X	X	X	-	-	-
	Double-crested cormorant		X	X				X	X	X	X	X	X	X	-	-	-
	Dunlin	HIGH	X	X	X	X	X				X	X	X		-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X					X	X	X	X	X	-	-	-
	Greater yellowlegs		X	X	X	X	X				X	X	X	X	-	-	-
	Green-winged teal		X	X	X	X					X	X	X	X	-	-	-
	Killdeer		X	X	X	X					X	X	X	X	-	-	-
	Least sandpiper	HIGH	X	X	X	X				X	X	X	X	X	-	-	-
	Long-billed curlew		X	X	X	X			X	X	X	X	X	X	-	-	-
	Mallard		X	X	X						X	X	X		-	-	-
	Marbled godwit		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Northern harrier		X	X	X	X	X				X	X	X	X	-	-	-
	Sanderling		X	X	X	X	X			X	X	X	X	X	-	-	-
	Semipalmated plover				X	X	X			X	X	X	X		-	-	-
	Short-billed dowitcher				X	X		X	X					-	-	-	-
	Snowy egret		X	X	X	X			X	X	X	X	X	X	-	-	-
	Tundra swan		X	X									X		-	-	-
	Western sandpiper	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Whimbrel			X	X	X			X	X	X				-	-	-
	Willet	HIGH	X	X	X	X			X	X	X	X	X	X	-	-	-
382	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	Bufflehead	HIGH	X	X	X	X					X	X			-	-	-
	Common goldeneye		X	X	X	X					X	X	X		-	-	-
	Greater scaup		X	X	X	X					X	X	X		-	-	-
	Ruddy duck		X	X	X	X					X	X	X		-	-	-
	Surf scoter		X	X	X	X				X	X	X	X		-	-	-
417	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	8 NESTS		X	X	X	X	X	X	X	X				MAR-AUG	-	-
	Double-crested cormorant	16 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	143 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	X				MAY-AUG	-	-
	Western gull	32 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
443	Black oystercatcher	5 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	84 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	25 INDIV.		X	X	X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	14 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
623	Tricolored blackbird		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
651	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	-
654	Marbled murrelet	E T MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
656	Sooty shearwater	MODERATE		X	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
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 pricklyback		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

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 4 (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
187	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
382	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-MAY	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
	Northern anchovy		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sanddab		X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	-	-	JAN-DEC	JUL-SEP
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Shiner surfperch							X	X	X	X	X	X	X	APR-NOV	-	-	APR-NOV	APR-NOV
	Starry flounder		X	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	X	-	-	-	-	MAY-SEP
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUN	MAR-AUG	JUN-MAR	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
384	Pacific herring		X	X	X	X	X	X	X	X			X	X	NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
385	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
493	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAR
494	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR
500	Steelhead	T	X	X	X									X	-	-	-	-	DEC-MAR
562	Steelhead	T	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
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
382	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	JAN-DEC
562	California freshwater shrimp	E E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	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
629	San Bruno elfin butterfly	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
633	California freshwater shrimp	E E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	JAN-DEC	JAN-DEC
634	Globose dune beetle		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	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
646	Gray whale		X	X	X	X	X						X	X	-	DEC-FEB	-	-
651	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 saddleback 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	-	-
	North Pacific 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 saddleback 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	-	-	-	-
653	Harbor porpoise	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
655	Blue whale	E LOW						X	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	Internesting	Juveniles	Adults
619	California red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	-	-	JAN-DEC	JAN-DEC
637	Northwestern pond turtle		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	JAN-DEC	JAN-DEC
652	Leatherback sea turtle	E HIGH						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
380	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X
381	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
100	DILLON BEACH	CDFG	

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MARINE SANCTUARY:

HUN#	Name	Contact	Phone
235	GULF OF THE FARALLONES NMS	NOAA	415/561-6622

Northern California: ESIMAP 5

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
381	American avocet		X	X	X	X	X			X	X	X	X	X	-	-	-
	American white pelican		X	X						X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X					X	X	X		-	-	-
	Cinnamon teal		X	X	X						X	X	X	X	-	-	-
	Double-crested cormorant		X	X					X	X	X	X	X	X	-	-	-
	Dunlin	HIGH	X	X	X	X	X				X	X	X		-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X					X	X	X	X	X	-	-	-
	Greater yellowlegs		X	X	X	X	X			X	X	X	X	X	-	-	-
	Green-winged teal		X	X	X	X				X	X	X	X		-	-	-
	Killdeer		X	X	X	X				X	X	X	X		-	-	-
	Least sandpiper	HIGH	X	X	X	X				X	X	X	X	X	-	-	-
	Long-billed curlew		X	X	X	X			X	X	X	X	X	X	-	-	-
	Mallard		X	X	X						X	X	X		-	-	-
	Marbled godwit		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Northern harrier		X	X	X	X	X			X	X	X	X		-	-	-
	Sanderling		X	X	X	X	X			X	X	X	X	X	-	-	-
	Semipalmated plover				X	X	X		X	X	X	X	X		-	-	-
	Short-billed dowitcher				X	X		X	X						-	-	-
	Snowy egret		X	X	X	X			X	X	X	X	X	X	-	-	-
	Tundra swan		X	X									X		-	-	-
	Western sandpiper	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Whimbrel			X	X	X				X	X	X			-	-	-
	Willet	HIGH	X	X	X	X			X	X	X	X	X	X	-	-	-
382	Brown pelican	E E			X	X	X	X	X	X	X	X	X		-	-	-
	Bufflehead	HIGH	X	X	X	X							X	X	-	-	-
	Common goldeneye		X	X	X	X					X	X	X		-	-	-
	Greater scaup		X	X	X	X					X	X	X		-	-	-
	Ruddy duck		X	X	X	X					X	X	X		-	-	-
	Surf scoter		X	X	X	X				X	X	X	X		-	-	-
416	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	361 NESTS		X	X	X	X	X	X	X	X				MAR-AUG	-	-
	Pigeon guillemot	30 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Rhinoceros auklet	2 INDIV.			X	X	X	X	X	X	X				APR-AUG	-	-
	Western gull	24 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
441	Black oystercatcher	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	103 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	X				MAY-AUG	-	-
	Western gull	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
442	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	51 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	27 INDIV.			X	X	X	X	X	X	X				MAY-AUG	-	-
	Rhinoceros auklet	2 INDIV.			X	X	X	X	X	X	X				APR-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
448	Pigeon guillemot	2 INDIV.			X	X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	12 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
449	Western snowy plover	T 15-35 BIRDS	X	X	X	X		X	X	X	X	X	X		-	-	-
451	American coot		X	X	X	X				X	X	X	X		-	-	-
	American white pelican		X	X						X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X				X	X	X			-	-	-
	Brandt's cormorant				X	X	X	X	X	X	X	X	X		-	-	-
	Brown pelican	E E								X	X	X	X	X	-	-	-
	Bufflehead		X	X	X	X						X	X		-	-	-
	California gull							X	X	X	X	X	X	X	-	-	-
	Caspian tern			X	X	X	X	X	X	X	X				-	-	-
	Common goldeneye		X	X	X	X					X	X	X		-	-	-
	Common loon		X	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	-	-	-
	Elegant tern				X	X	X	X	X	X	X	X			-	-	-
	Forster's tern			X	X	X	X	X	X	X	X	X			-	-	-
	Glaucous-winged gull		X	X	X	X	X			X	X	X	X		-	-	-
	Greater scaup		X	X	X	X					X	X	X		-	-	-
	Heermann's gull					X	X	X	X	X	X				-	-	-
	Horned grebe		X	X	X	X					X	X	X		-	-	-
	Mallard		X	X	X						X	X	X		-	-	-
	Mew gull		X	X	X	X					X	X	X		-	-	-
	Northern pintail		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Northern shoveler		X	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-breasted merganser		X	X	X	X	X				X	X			-	-	-
	Ring-billed gull		X	X	X	X	X		X	X	X	X	X		-	-	-
	Ruddy duck		X	X	X	X				X	X	X			-	-	-
	Sooty shearwater				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	-	-	-
	Western gull		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
452	American avocet		X	X	X	X	X			X	X	X	X	X	-	-	-
	Black turnstone		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Black-bellied plover		X	X	X	X	X		X	X	X	X	X		-	-	-
	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Dunlin		X	X	X	X	X				X	X	X		-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Least sandpiper		X	X	X	X				X	X	X	X	X	-	-	-
	Marbled godwit		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Sanderling		X	X	X	X	X		X	X	X	X	X		-	-	-
	Semipalmated plover				X	X	X		X	X	X	X			-	-	-
	Short-billed dowitcher				X	X		X	X						-	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surfbird		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Willet		X	X	X	X			X	X	X	X	X	X	-	-	-
453	American kestrel		X	X	X					X	X	X			-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	California black rail	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Northern harrier		X	X	X	X	X		X	X	X	X			-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X		-	-	-
454	Brant		X	X	X	X					X	X	X		-	-	-
457	Western snowy plover	T 5-18 BIRDS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
458	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
	Waterfowl		X	X	X	X					X	X	X		-	-	-
462	Black scoter		X	X	X	X					X	X			-	-	-
	Brandt's cormorant				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.

Northern California: ESIMAP 5 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
462	Clark's grebe		X	X	X	X						X	X	X	-	-	-
	Common loon		X	X	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	X		-	-	-
651	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	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	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	-
654	Marbled murrelet	E T MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
656	Sooty shearwater	MODERATE		X	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
187	Bat ray				X	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	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
382	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-MAY	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
	Northern anchovy		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sanddab		X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	-	-	JAN-DEC	JUL-SEP
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Shiner surfperch				X	X	X	X	X	X	X				APR-NOV	-	-	APR-NOV	APR-NOV
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-NOV	JAN-DEC	JAN-DEC
	Striped bass				X	X	X	X	X						-	-	-	-	MAY-SEP
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUN	MAR-AUG	JUN-MAR	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
384	Pacific herring		X	X	X	X	X	X	X		X	X			NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
385	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
451	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-OCT	AUG-DEC	JAN-DEC	JAN-DEC
	Bay goby		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	JAN-DEC	JAN-DEC
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-APR	JAN-DEC	-
	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
	Jacksmelt				X	X	X	X	X	X					APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	-	-	JAN-DEC	JAN-DEC
	Lingcod				X	X	X	X	X						-	-	FEB-MAR	APR-AUG	-
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	NOV-FEB	JAN-DEC	OCT-APR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Pacific sand lance		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-APR	JAN-DEC	JAN-DEC
	Pacific sanddab		X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	-	-	JAN-DEC	JUL-SEP

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 5 (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
451	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X	X	X	APR-NOV	-	-	APR-NOV	APR-NOV
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-NOV	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-SEP	JUL-DEC	JAN-DEC
	Topsmelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	White croaker						X	X	X	X	X	X	X	X	-	-	-	APR-SEP	APR-SEP
454	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Pacific herring		X	X	X	X	X	X	X	X			X	X	NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
455	Barred surfperch		X	X	X	X	X	X							FEB-JUL	-	-	FEB-JUL	FEB-JUL
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	FEB-NOV	FEB-NOV
	Surf smelt						X	X	X	X	X	X			MAY-OCT	-	-	MAY-OCT	MAY-OCT
456	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	FEB-NOV	FEB-NOV
	Surf smelt						X	X	X	X	X	X			MAY-OCT	-	-	MAY-OCT	MAY-OCT
464	Pacific herring		X	X	X	X	X	X	X				X	X	NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
466	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR
494	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR
500	Steelhead	T	X	X	X									X	-	-	-	-	DEC-MAR
501	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	DEC-JAN	-	FEB-AUG	JAN-DEC	DEC-JAN
	Pacific herring		X	X	X	X	X	X	X	X			X	X	NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
532	Steelhead	T	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
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
382	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	JAN-DEC
450	California butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
	Pacific gaper		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Washington butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
451	Brown rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUL	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	-
	Geoduck		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Pacific littleneck		X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-SEP	JAN-DEC	JAN-DEC
	Red rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
454	Zebra leafslug		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
456	Pacific razor clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
463	California mussel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	JAN-DEC	JAN-DEC
	Red abalone		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	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
633	California freshwater shrimp	E E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	JAN-DEC	JAN-DEC
635	Monarch butterfly		X	X										X	X	-	-	-	NOV-FEB

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	X	JUL-SEP	JUN-AUG	-	-
310	Harbor seal	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
451	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
459	California sea lion	4-1395 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	16-64 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Steller sea lion	T 5-29 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
460	Harbor seal	9-85 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
461	Blue whale	E LOW						X	X	X	X	X	X	X	-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X				-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
646	Gray whale		X	X	X	X	X						X	X	-	DEC-FEB	-	-
651	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 saddleback 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	-	-
	North Pacific 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 saddleback 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	-	-	-	-
653	Harbor porpoise	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
655	Blue whale	E LOW						X	X	X	X	X	X	X	-	-	-	-
	Humpback whale	E MODERATE						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	Internesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV
619	California red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	-	-	JAN-DEC	JAN-DEC
637	Northwestern pond turtle		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	JAN-DEC	JAN-DEC
652	Leatherback sea turtle	E HIGH						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
381	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X
453	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X
458	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X

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Northern California: ESIMAP 5 (cont.)

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
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5	ARCHED ROCK BEACH	CDFG	
8	BODEGA DUNES	CDFG	
11	CARMET BEACH	CDFG	
14	COLEMAN'S BEACH	CDFG	
26	MARCHALL GULCH	CDFG	
30	MIWOK BEACH	CDFG	

AQUACULTURE:

HUN#	Name	Contact	Phone
---	-----	-----	-----
67	BODEGA FISH FARMS	CDFG	
68	BODEGA FISH/OCEAN FARMS INC	CDFG	
69	BODEGA MARINE LAB	UNIV. OF CA - PETER CONNERS, RESERVE MANAGER	707/875-4261

BEACH:

HUN#	Name	Contact	Phone
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89	ARCHED ROCK BEACH	CDFG	
94	BODEGA DUNES	CDFG	
96	CARMET BEACH	CDFG	
99	COLEMAN'S BEACH	CDFG	
110	MIWOK BEACH	CDFG	

BOAT RAMP:

HUN#	Name	Contact	Phone
---	-----	-----	-----
133	DORAN PARK	CDFG	
141	WESTSIDE REGIONAL PARK	CDFG	

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
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164	BODEGA BAY MONARCH BUTTERFLY	CDFG	

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
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171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
---	-----	-----	-----
176	BODEGA SMR	CDFG	
207	SONOMA COAST SMCA	CDFG	

MARINA:

HUN#	Name	Contact	Phone
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216	BODEGA HARBOR	CDFG	
224	MASONS MARINA	CDFG	
228	PORTO BODEGA	CDFG	
231	SPUD POINT MARINA	CDFG	

MARINE SANCTUARY:

HUN#	Name	Contact	Phone
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235	GULF OF THE FARALLONES NMS	NOAA	415/561-6622

PARK:

HUN#	Name	Contact	Phone
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265	SONOMA COAST SB	CDPR	707/875-3483

WATER INTAKE:

HUN#	Name	Contact	Phone
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294	BODEGA HEAD	CDFG	

Northern California: ESIMAP 6

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	-
437	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	44 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	-	-
438	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	34 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Leach's storm-petrel	10 INDIV.		X	X	X	X	X	X	X					MAY-OCT	-	-
	Pelagic cormorant	44 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	X					MAY-AUG	-	-
	Western gull	34 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
439	Black oystercatcher	20 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	16 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	55 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	88 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
440	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	136 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	4 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	34 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
447	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	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	-	-	-
	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		-	-	-
	Double-crested cormorant		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		-	-	-
	Red-throated loon		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		-	-	-
	White-winged scoter		X	X	X	X				X	X	X			-	-	-
467	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		-	-	-
	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		-	-	-
	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				-	-	-
	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		-	-	-
620	Bank swallow	T		X	X	X	X	X	X	X	X	X			JUN-AUG	-	-
621	Osprey		X	X	X	X	X	X	X	X	X				FEB-AUG	-	-

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
	Cabezon		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	-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt			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	DEC-MAR	-	-	JAN-DEC	JAN-DEC
	Leopard shark			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	NOV-APR	DEC-FEB	FEB-APR	JAN-DEC	JAN-DEC
	Longnose skate			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	JAN-APR	-	-	JAN-DEC	JAN-DEC
	Northern anchovy						X	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	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	MAR-JUL	-	-	JAN-DEC	JAN-DEC
	Rock greenling			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	JAN-JUL	-	-	JAN-DEC	JAN-DEC
	Sandpaper skate			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	JUN-SEP	-	-	JAN-DEC	JAN-DEC
	Speckled sanddab			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	JAN-DEC	-	-	JAN-DEC	JAN-DEC
	Starry flounder			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	-	-	-	JAN-DEC	JAN-DEC
	Striped surfperch			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	APR-JUL	APR-JUL	MAY-AUG	JAN-DEC	JAN-DEC
	Vermilion rockfish			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	JAN-JUL	JAN-JUL	JAN-JUL	JAN-DEC	JAN-DEC
	456	Night smelt		X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
Redtail surfperch				X	X	X	X	X	X	X	X			FEB-NOV	-	-	FEB-NOV	FEB-NOV	
	Surf smelt				X	X	X	X	X					MAY-OCT	-	-	MAY-OCT	MAY-OCT	
466	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR	
468	American shad			X	X	X	X	X	X	X				-	-	-	JUL-NOV	APR-JUL	
	English sole		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	-	-	-	JAN-DEC	JAN-DEC	

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 6 (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	Pile surfperch		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 X X X	APR-NOV	-	-	APR-NOV	APR-NOV
	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
563	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-MAY
564	Steelhead	T	X X X X X X X X X X X	-	-	-	JAN-DEC	OCT-APR
566	Chinook salmon	T	X X X X X X X X X X X	OCT-FEB	OCT-MAY	NOV-JUL	JAN-DEC	OCT-FEB
	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	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
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
456	Pacific razor clam		X X X X X X X X X X X	MAY-JUN	-	-	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
633	California freshwater shrimp	E E	X X X X X X X X X X X	MAR-MAY	-	-	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
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	-	-	-	-
	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	-	-	-	-
469	Harbor seal	32-53 INDIV.	X X X X X X X X X X X	-	-	-	-
470	Harbor seal	16-18 INDIV.	X X X X X X X X X X X	-	-	-	-
471	Harbor seal	15 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
619	California red-legged frog		X X X X X X X X X X X	NOV-APR	-	-	JAN-DEC	JAN-DEC
637	Northwestern pond turtle		X X X X X X X X X X X	APR-JUN	-	-	JAN-DEC	JAN-DEC

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
7	BLIND BEACH	CDFG	
15	DUNCANS COVE	CDFG	
16	DUNCANS LANDING	CDFG	
19	GLEASON BEACH	CDFG	
36	PORTUGESE BEACH	CDFG	
43	SCHOOLHOUSE BEACH	CDFG	
46	SHELL BEACH	CDFG	
55	WRIGHTS BEACH	CDFG	

BEACH:

HUN#	Name	Contact	Phone
92	BLIND BEACH	CDFG	
103	GLEASON BEACH	CDFG	
113	PORTUGESE BEACH	CDFG	
117	SCHOOLHOUSE BEACH	CDFG	
119	SHELL BEACH	CDFG	
129	WRIGHTS BEACH	CDFG	

BOAT RAMP:

HUN#	Name	Contact	Phone
136	JENNER, RUSSIAN RIVER, GOAT ROCK	CDFG	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
197	MONTE RIO FA	CDFG	
207	SONOMA COAST SMCA	CDFG	

PARK:

HUN#	Name	Contact	Phone
265	SONOMA COAST SB	CDPR	707/875-3483

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	-	-	-	-
	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

Northern California: ESIMAP 8

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	-
431	Pelagic cormorant	121 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	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
432	Black oystercatcher	14 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	79 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	-	-
433	Black oystercatcher	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	110 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	10 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	16 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
434	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	62 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	10 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	32 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
435	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	20 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	52 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			-	-	-
	Surf scoter		X	X	X	X				X	X	X	X		-	-	-
	Western grebe		X	X	X	X				X	X	X	X		-	-	-
	White-winged scoter		X	X	X	X				X	X	X			-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X			FEB-AUG	-	-

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	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	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
494	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	JAN-MAY	JAN-DEC	DEC-MAR
502	Coho salmon	E E	X	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	X	X	X	X	X	JAN-MAR	JAN-APR	JAN-MAY	JAN-DEC	NOV-MAR
503	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	JAN-APR	JAN-MAY	JAN-DEC	NOV-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	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	X	APR-NOV	APR-NOV	APR-JAN	JAN-DEC	JAN-DEC
	Dungeness crab		X	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	X	SEP-OCT	OCT-APR	MAR-JUL	JAN-DEC	JAN-DEC
	Spot prawn		X	X	X	X	X	X	X	X	X	X	X	X	SEP-APR	SEP-APR	SEP-APR	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
302	Harbor porpoise	MODERATE	X	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		-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X				-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
479	Harbor seal	57-85 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
480	California sea lion	1-78 INDIV.	X	X	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.

Northern California: ESIMAP 8 (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
480	Steller sea lion	T 2-36 INDIV.	X X X X X X X X X X X	-	-	-	-
481	Harbor seal	60-64 INDIV.	X X X X X X X X X X X	-	-	-	-
482	Harbor seal	54-82 INDIV.	X X X X X X X X X X X	-	-	-	-
483	Harbor seal	27-39 INDIV.	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	-	-	-	-
484	California sea lion	30 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	17-48 INDIV.	X X X X X X X X X X X	-	-	-	-
485	Harbor seal	12 INDIV.	X X X X X X X X X X X	-	-	-	-
486	Harbor seal	4-13 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	Interesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW	X X X X X X X	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

BOAT RAMP:

HUN#	Name	Contact	Phone
140	OCEAN COVE	CDFG	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
185	FORT ROSS SMCA	CDFG	
186	GERSTLE COVE SMCA	CDFG	
190	KRUSE RHODODENDRON SR	CDPR	707/847-3221
205	SALT POINT SMCA	CDFG	

PARK:

HUN#	Name	Contact	Phone
246	FORT ROSS SHP	CDPR	707/847-3286
262	SALT POINT SP	CDPR	707/847-3221

Northern California: ESIMAP 9

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	-
428	Black oystercatcher	11 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	84 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	42 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	16 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
429	Black oystercatcher	4 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	12 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	-	-
430	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	66 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	15 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	4 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	X				-	-
	Clark's grebe		X	X	X	X					X	X	X			-	-
	Common loon		X	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				-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
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187	Bat ray				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
502	Coho salmon	E E	X	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	X	X	X	X	X	JAN-MAR	JAN-APR	JAN-MAY	JAN-DEC	NOV-MAR
503	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	JAN-APR	JAN-MAY	JAN-DEC	NOV-MAR
568	Coho salmon	E E	X	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	X	X	X	X	X	JAN-MAR	JAN-APR	JAN-MAY	JAN-DEC	NOV-MAR

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
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1	Red abalone		X	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	X	APR-NOV	APR-NOV	APR-JAN	JAN-DEC	JAN-DEC
	Dungeness crab		X	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	X	SEP-OCT	OCT-APR	MAR-JUL	JAN-DEC	JAN-DEC
	Spot prawn		X	X	X	X	X	X	X	X	X	X	X	X	SEP-APR	SEP-APR	SEP-APR	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
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302	Harbor porpoise	MODERATE	X	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			-	-	-	-
	Humpback whale	E MODERATE					X	X	X	X					-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
487	Harbor seal	97-195 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
488	Harbor seal	88-98 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
489	Harbor seal	134-276 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-MAY	-
490	Harbor seal	43-65 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
491	Harbor seal	400-446 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-MAY	-
646	Gray whale		X	X	X	X					X	X			-	DEC-FEB	-	-

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 9 (cont.)

BIOLOGICAL RESOURCES: (cont.)

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
637	Northwestern pond turtle		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
44	SEA RANCH	CDFG	

Northern California: ESIMAP 10

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	-
3	Greater yellowlegs		X	X	X	X	X			X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Least sandpiper		X	X	X	X			X	X	X	X	X		-	-	-
	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
4	Brandt's cormorant						X	X	X	X	X	X	X	X	-	-	-
	Brant		X	X	X	X							X	X	X	-	-
	Brown pelican	E E								X	X	X	X	X	-	-	-
	Common loon		X	X	X	X	X			X	X	X	X	X	-	-	-
	Common merganser		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	-	-	-
	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	-	-	-
	Terns				X	X	X	X	X	X	X	X	X	X	-	-	-
412	Black oystercatcher	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	184 NESTS			X	X	X	X	X	X	X	X	X		MAR-AUG	-	-
	Leach's storm-petrel	100 INDIV.			X	X	X	X	X	X	X	X	X		MAY-OCT	-	-
	Pelagic cormorant	123 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	119 INDIV.			X	X	X	X	X	X	X	X	X		MAY-AUG	-	-
	Rhinoceros auklet	4 INDIV.			X	X	X	X	X	X	X	X	X		APR-AUG	-	-
	Tufted puffin	15 INDIV.			X	X	X	X	X	X	X	X	X		MAY-SEP	-	-
	Western gull	170 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
413	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	132 NESTS			X	X	X	X	X	X	X	X	X		MAR-AUG	-	-
	Pelagic cormorant	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	29 INDIV.			X	X	X	X	X	X	X	X	X		MAY-AUG	-	-
	Western gull	26 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
424	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	119 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	55 INDIV.			X	X	X	X	X	X	X	X	X		MAY-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
425	Brandt's cormorant	18 INDIV.			X	X	X	X	X	X	X	X	X		MAR-AUG	-	-
	Pelagic cormorant	54 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
426	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	187 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	90 INDIV.			X	X	X	X	X	X	X	X	X		MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
427	Pelagic cormorant	9 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
462	Black scoter		X	X	X	X							X	X	-	-	-
	Brandt's cormorant				X	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	-	-
	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	-	-
	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	-	-
	Western grebe		X	X	X	X	X						X	X	X	-	-
	White-winged scoter		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
5	Night smelt		X	X	X	X	X	X	X	X	X	X	X		JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch			X	X	X	X	X	X	X	X	X	X		FEB-NOV	-	-	FEB-NOV	FEB-NOV
	Shiner surfperch				X	X	X	X	X	X	X	X	X		APR-NOV	-	-	APR-NOV	APR-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Surf smelt				X	X	X	X	X	X	X	X	X		MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	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	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
12	Jacksmelt		X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	JAN-AUG	JAN-DEC	JAN-DEC	JAN-DEC
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	NOV-FEB	JAN-DEC	OCT-APR
	Northern anchovy							X	X	X					-	-	-	JUL-SEP	JUL-SEP
	Pacific herring		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Shiner surfperch				X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	MAY-OCT
	Topsmelt				X	X	X	X	X	X	X	X	X		APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
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					-	-	-	-	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	X		-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	X	X	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

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 10 (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
187	Rock greenling		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	JAN-JUL	-	-	JAN-DEC	JAN-DEC
	Sandpaper skate		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 X	-	-	-	-	MAR-NOV
	Sixgill shark		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	MAR-OCT	-	AUG-DEC	JAN-DEC	JAN-DEC
	Spiny dogfish		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	NOV-FEB	-	-	JAN-DEC	JAN-DEC
	Steelhead		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	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Topsmelt		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	DEC-MAR	-	-	JAN-DEC	JAN-DEC
	Yellowtail rockfish		X X X X X X X X X X X	JAN-JUL	JAN-JUL	JAN-JUL	JAN-DEC	JAN-DEC
503	Steelhead	T	X X X X X X X X X X X	JAN-MAR	JAN-APR	JAN-MAY	JAN-DEC	NOV-MAR
504	Coho salmon	E E	X X X X X X X X X X X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X X X X X X X X X X X	-	-	-	JAN-DEC	NOV-MAR
569	Coho salmon	E E	X X X X X X X X X X X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X X X X X X X X X X X	JAN-MAR	JAN-APR	JAN-MAY	JAN-DEC	NOV-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
12	Dungeness crab		X X X X X X X X X X X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
14	Red abalone		X X X X X X X X X X X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
	Sea urchins		X X X X X X X X X X X	-	-	-	-	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

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
6	Harbor seal	29-60 INDIV.	X X X X X X X X X X X	-	-	-	-
7	Harbor seal	27-58 INDIV.	X X X X X X X X X X X	-	-	-	-
8	California sea lion	1-1206 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	12-81 INDIV.	X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 1-7 INDIV.	X X X X X X X X X X X	-	-	-	-
9	Harbor seal	9-22 INDIV.	X X X X X X X X X X X	-	-	-	-
10	Harbor seal	91-95 INDIV.	X X X X X X X X X X X	-	-	-	-
11	Harbor seal		X X X X X X X X X X X	-	-	-	-
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
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	-	-	-	-
	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	-	-	-	-
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 X X	-	-	-	-	MAY-NOV
619	California red-legged frog		X X X X X X X X X X X	NOV-APR	-	-	JAN-DEC	JAN-DEC

TERRESTRIAL MAMMAL:

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

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
21	GUALALA RIVER	CDFG	

AIRPORT:

HUN#	Name	Contact	Phone
61	OCEAN RIDGE AIRPORT		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
178	DEL MAR LANDING SMP	CDFG	

Northern California: ESIMAP 11

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
411	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	96 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	30 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
423	Pelagic cormorant	20 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	8 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
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	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		-	-	-
	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		-	-	-

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	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	X			-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	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			-	-	-	-	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
14	Red abalone		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
	Sea urchins		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
15	Harbor seal	76-95 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	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				-	-	-	-
	Humpback whale	E MODERATE					X	X	X	X					-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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	Interesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW					X	X	X	X	X	X			-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

PARK:

HUN#	Name	Contact	Phone
263	SCHOONER GULCH SB	CDPR	707/937-5804

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 12

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
16	Grebes	HIGH	X	X	X	X	X				X	X	X	X	-	-	-
	Laysan albatross	1 BIRD	X	X	X	X							X	X	-	-	-
	Scoters	HIGH	X	X	X	X					X	X	X	X	-	-	-
17	Western snowy plover	T 2 BIRDS			X	X	X	X	X	X	X				MAR-SEP	-	-
18	Western snowy plover	T 12-24 BIRDS	X	X	X	X			X	X	X	X	X	X	-	-	-
24	Tundra swan		X	X										X	-	-	-
	Waterfowl		X	X	X	X							X	X	X	-	-
25	Caspian tern				X	X	X	X	X	X	X	X			-	-	-
	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
410	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	106 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	12 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Western gull	9 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
420	Black oystercatcher	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	154 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	52 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
421	Pelagic cormorant	40 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	10 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
422	Pelagic cormorant	42 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	8 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
445	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	183 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	16 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	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	-	-
	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	-	-
	Western grebe		X	X	X	X	X						X	X	X	-	-
	White-winged scoter		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
26	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch			X	X	X	X	X	X	X	X	X	X		FEB-NOV	-	-	FEB-NOV	FEB-NOV
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
27	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
28	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Buffalo sculpin		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		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	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Green sturgeon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt					X	X	X	X	X	X	X			APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	NOV-FEB	JAN-DEC	OCT-APR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Pacific halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific herring						X	X	X	X	X	X	X	X	JUN-SEP	JUN-SEP	JUN-SEP	SEP-DEC	JUN-SEP
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt					X	X	X	X	X	X	X			APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
	Walleye surfperch		X	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	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	Yellowtail rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
187	Bat ray					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

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 12 (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
187	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	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	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
505	Chinook salmon	T	X	X									X	X	-	-	-	-	OCT-FEB
	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
506	Chinook salmon	T	X	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	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
571	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
14	Red abalone		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
	Sea urchins		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
28	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Yellow shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
631	Behren's silverspot butterfly	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
19	Harbor seal	87 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
20	Harbor seal	9 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
21	Harbor seal	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
22	Harbor seal	8-127 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
23	Harbor seal	77-78 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	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		-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X	X			-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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	Interesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW						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
636	Point Arena mountain beaver	E	X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
9	BOWLING BALL BEACH	CDFG	
25	MANCHESTER STATE BEACH	CSP	707/882-2463
34	POINT ARENA LIGHT HOUSE	CDFG	
42	SAUNDER REEF	CDFG	

BEACH:

HUN#	Name	Contact	Phone
95	BOWLING BALL BEACH	CDFG	
107	MANCHESTER STATE BEACH	CSP	707/882-2463

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
195	MANCHESTER AND ARENA ROCK SMCA	CDFG	

MARINA:

HUN#	Name	Contact	Phone
227	POINT ARENA HARBOR	CDFG	

PARK:

HUN#	Name	Contact	Phone
252	MANCHESTER SP	CDPR	707/882-2463

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 13

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
18	Western snowy plover	T 12-24 BIRDS	X	X	X	X		X	X	X	X	X	X		-	-	-
25	Caspian tern					X	X	X	X	X	X	X			-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
29	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
	Terns				X	X	X	X	X	X	X	X	X		-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Waterfowl		X	X	X	X					X	X	X		-	-	-
30	Raptors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
31	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
	Terns				X	X	X	X	X	X	X	X	X		-	-	-
	Waterfowl		X	X	X	X					X	X	X		-	-	-
332	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	239 NESTS			X	X	X	X	X	X	X	X			MAR-AUG	-	-
	Brown pelican	E E 82 INDIV.			X	X	X	X	X	X	X	X			-	-	-
	Common murre	272 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	18 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	22 INDIV.			X	X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	26 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
352	Black oystercatcher	5 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	175 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	25 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
353	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant				X	X	X	X	X	X	X				MAR-AUG	-	-
	Pelagic cormorant	108 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
354	Pelagic cormorant	73 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
355	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	24 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	X				MAY-AUG	-	-
	Western gull	4 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				-	-	-
	Surf scoter		X	X	X	X				X	X	X	X		-	-	-
	Western grebe		X	X	X	X				X	X	X	X		-	-	-
	White-winged scoter		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
26	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch			X	X	X	X	X	X	X	X	X			FEB-NOV	-	-	FEB-NOV	FEB-NOV
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X		JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
187	Bat ray			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			-	-	-	JAN-DEC	JAN-DEC
	Canary rockfish (orange)		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		-	-	-	JAN-DEC	JAN-DEC
	Coho salmon		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		-	-	-	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		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		-	-	-	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
535	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-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 impacts to protected species.

Northern California: ESIMAP 13 (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
571	Coho salmon	E E	X X X X X X X X X X X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
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

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
32	Harbor seal	133-311 INDIV.	X X X X X X X X X X X	-	-	-	-
33	California sea lion	1 INDIV.	X X X X X X X X X X X	-	-	-	-
34	California sea lion	18 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	39-61 INDIV.	X X X X X X X X X X X	-	-	-	-
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	-	-	-	-
	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	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Interesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW	X X X X X X X X	-	-	-	-	MAY-NOV
619	California red-legged frog		X X X X X X X X X X X	NOV-APR	-	-	JAN-DEC	JAN-DEC

TERRESTRIAL MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
636	Point Arena mountain beaver	E	X X X X X X X X X X X

HUMAN USE RESOURCES:

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
195	MANCHESTER AND ARENA ROCK SMCA	CDFG	

PARK:

HUN#	Name	Contact	Phone
247	GREENWOOD SB	CDPR	707/937-5804
252	MANCHESTER SP	CDPR	707/882-2463

Northern California: ESIMAP 14

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
35	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black turnstone		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Rock sandpiper		X	X	X	X					X	X	X		-	-	-
	Semipalmated plover				X	X	X		X	X	X	X			-	-	-
	Surfbird		X	X	X	X	X		X	X	X	X	X		-	-	-
	Wandering tattler							X	X	X	X				-	-	-
37	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
38	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	Bufflehead		X	X	X	X							X	X	-	-	-
	Common merganser		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	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
40	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Aleutian cackling goose		X	X	X	X									-	-	-
	Brown pelican	E E				X	X	X	X	X	X	X			-	-	-
	Clark's grebe		X	X	X	X				X	X	X			-	-	-
	Common merganser		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			-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-breasted merganser		X	X	X	X	X			X	X				-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
329	Western grebe		X	X	X	X	X			X	X	X	X		-	-	-
	Black oystercatcher	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	25 NESTS		X	X	X	X	X	X	X					MAR-AUG	-	-
	Pelagic cormorant	70 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	49 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
330	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	11 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	55 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	24 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
331	Brandt's cormorant	221 NESTS		X	X	X	X	X	X	X	X				MAR-AUG	-	-
	Brown pelican	E E 22 INDIV.		X	X	X	X	X	X	X	X				-	-	-
	Common murre	123 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pigeon guillemot	10 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Rhinoceros auklet	3 INDIV.		X	X	X	X	X	X						APR-AUG	-	-
	Western gull	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
349	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	279 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	152 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	74 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
350	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	121 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	28 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	14 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
351	Black oystercatcher	11 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant			X	X	X	X	X	X	X					MAR-AUG	-	-
	Pelagic cormorant	156 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	170 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	7 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	X				-	-	-
	Clark's grebe		X	X	X	X				X	X	X			-	-	-
	Common loon		X	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		-	-	-
	White-winged scoter		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
36	Rockfish	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
39	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		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	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Jacksmelt			X	X	X	X	X	X	X					APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Pacific herring		X	X	X	X	X	X	X		X	X			NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch			X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt			X	X	X	X	X	X	X					APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
48	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-OCT	AUG-DEC	JAN-DEC	JAN-DEC
	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

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.

BIOLOGICAL RESOURCES: (cont.)

[illegible]

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
35	Red abalone	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
39	California bay shrimp	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Yellow shore crab	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
48	Dungeness crab	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Yellow shore crab	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
187	California market squid	X	X	X	X	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	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	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	X	X	X	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
42	California sea lion	109-280 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	38-56 INDIV.	X X X X X X X X X X X	-	-	-	-
42	Steller sea lion	T 3-16 INDIV.	X X X X X X X X X X X	-	-	-	-
43	Harbor seal	49 INDIV.	X X X X X X X X X X X	-	-	-	-
44	Harbor seal	62-81 INDIV.	X X X X X X X X X X X	-	-	-	-
45	Harbor seal	24-33 INDIV.	X X X X X X X X X X X	-	-	-	-
46	Harbor seal	34 INDIV.	X X X X X X X X X X X	-	-	-	-
47	Harbor seal	26-28 INDIV.	X 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.

Northern California: ESIMAP 14 (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
302	Harbor porpoise	MODERATE	X	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		-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X	X			-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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	Interesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
4	ALBION RIVER AND HARBOR	CDFG	
20	GREENWOOD CREEK PROJECT	CDFG	
32	NAVARRO RIVER	CDFG	

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

NATURE CONSERVANCY:

HUN#	Name	Contact	Phone
241	PYGMY FOREST	TNC	916/653-5656

PARK:

HUN#	Name	Contact	Phone
247	GREENWOOD SB	CDPR	707/937-5804
256	NAVARRO RIVER REDWOODS SP	CDPR	707/445-6547
269	VAN DAMME SP	CDPR	707/937-5804

Northern California: ESIMAP 15

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
35	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black turnstone		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Rock sandpiper		X	X	X	X					X	X	X		-	-	-
	Semipalmated plover				X	X	X		X	X	X	X			-	-	-
	Surfbird		X	X	X	X	X		X	X	X	X	X		-	-	-
	Wandering tattler							X	X	X	X				-	-	-
49	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
51	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
	Waterfowl		X	X	X	X					X	X	X		-	-	-
59	Black oystercatcher	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
60	Marbled murrelet	E T VERY LOW		X	X	X	X	X	X	X	X				-	-	-
328	Black oystercatcher	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	476 INDIV.		X	X	X	X	X	X	X	X				MAR-AUG	-	-
	Brown pelican	E E 5 INDIV.		X	X	X	X	X	X	X	X				-	-	-
	Common murre	2,579 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	119 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	54 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Rhinoceros auklet	4 INDIV.		X	X	X	X	X	X	X					APR-AUG	-	-
	Tufted puffin	8 INDIV.		X	X	X	X	X	X						MAY-SEP	-	-
	Western gull	48 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
344	Black oystercatcher	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	29 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	37 INDIV.		X	X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
345	Black oystercatcher	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	185 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	63 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	12 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
346	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	29 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	58 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-
347	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	35 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	36 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
348	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	68 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	29 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Rhinoceros auklet	3 INDIV.		X	X	X	X	X	X						APR-AUG	-	-
	Tufted puffin	2 INDIV.		X	X	X	X	X							MAY-SEP	-	-
	Western gull	158 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
358	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	13 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	15 INDIV.		X	X	X	X	X							MAY-AUG	-	-
	Western gull	18 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
359	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	15 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	41 INDIV.		X	X	X	X	X	X						MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
462	Black scoter		X	X	X								X	X	-	-	-
	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	-	-	-
	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	-	-	-
	White-winged scoter		X	X	X	X					X	X	X		-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X			FEB-AUG	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
50	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		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	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Eulachon		X	X	X	X	X					X			-	JAN-MAY	FEB-JUN	-	DEC-MAY
	Green sturgeon	T	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	-	-	-	JAN-DEC	-
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	NOV-FEB	JAN-DEC	OCT-APR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy							X	X	X					-	-	-	JUL-SEP	JUL-SEP
	Pacific herring		X	X	X	X	X	X	X		X	X			NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch			X	X	X	X	X	X	X	X				APR-NOV	-	-	APR-NOV	APR-NOV
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt			X	X	X	X	X	X	X					APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
187	Bat ray			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

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 15 (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
187	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	X		-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	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	-	-	-	-	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
509	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	AUG-JAN
	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
539	Steelhead	T	X	X	X	X	X			X	X	X			-	-	-	-	OCT-JUN
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
573	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
574	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-JUN
575	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X			X					-	-	-	-	DEC-JUN
576	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	MAR-MAY	APR-JUN	JAN-DEC	DEC-JUN
577	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
35	Red abalone		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
50	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	-
	Yellow shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
632	Lotis blue butterfly	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
52	Harbor seal	34-96 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
53	Harbor seal	29 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
54	Harbor seal	155-160 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
55	Harbor seal	78-85 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
56	Harbor seal	14 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-MAY	-
57	Harbor seal	36-48 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-MAY	-
58	California sea lion	1-243 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-JUL	-
	Harbor seal	5 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-MAY	-
	Steller sea lion	T 5-40 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-AUG	-
302	Harbor porpoise	MODERATE	X	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		-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X				-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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	Internesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X		-	-	-	-	MAY-NOV
619	California red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
6	BIG RIVER	CDFG	
29	MENDOCINO HEADLANDS	CDFG	
35	POINT CABRILLO LIGHT HOUSE	CDFG	
41	RUSSIAN GULCH STATE PARK	CSP	707/937-5804
52	VAN DAMME STATE PARK	CSP	707/937-5804
59	LITTLE RIVER AIRPORT		

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

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 15 (cont.)

HUMAN USE RESOURCES: (cont.)

AIRPORT:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
187	JUG HANDLE SR	CDPR	707/937-5804
201	POINT CABRILLO SMCA	CDFG	
204	RUSSIAN GULCH SMCA	CDFG	
213	VAN DAMME SMCA	CDFG	

NATURE CONSERVANCY:

HUN#	Name	Contact	Phone
241	PYGMY FOREST	TNC	916/653-5656

PARK:

HUN#	Name	Contact	Phone
242	BIG RIVER ACQUISITION	CDPR	916/445-9099
243	CASPAR HEADLANDS SB	CDPR	707/937-5804
254	MENDOCINO HEADLANDS SP	CDPR	707/937-5804
259	POINT CABRILLO LIGHT STATION	CDPR	707/937-5804
261	RUSSIAN GULCH SP	CDPR	707/937-5804
269	VAN DAMME SP	CDPR	707/937-5804

Northern California: ESIMAP 16

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
			-	-	-	-	-	-	-	-	-	-	-	-			
35	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black turnstone		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Rock sandpiper		X	X	X	X						X	X	X	-	-	-
	Semipalmated plover					X	X	X		X	X	X	X		-	-	-
	Surfbird		X	X	X	X	X			X	X	X	X	X	-	-	-
	Wandering tattler								X	X	X	X			-	-	-
37	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
60	Marbled murrelet	E T VERY LOW				X	X	X	X	X	X	X	X		-	-	-
63	Western snowy plover	T 8 BIRDS	X	X	X	X			X	X	X	X	X	X	-	-	-
66	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
73	American coot		X	X	X	X	X			X	X	X	X		-	-	-
	Dabbling ducks		X	X	X	X				X	X	X			-	-	-
	Wood duck		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
74	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
	Waterfowl		X	X	X	X				X	X	X			-	-	-
343	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	37 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	36 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	78 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
356	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	66 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	88 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
357	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	57 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	48 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	8 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		-	-	-
	Double-crested cormorant		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		-	-	-
	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			-	-	-
	White-winged scoter		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
			-	-	-	-	-	-	-	-	-	-	-	-					
61	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X	X		MAY-JUL	-	-	MAY-DEC	APR-OCT
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Topsmelt					X	X	X	X	X	X				APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
64	American shad					X	X	X	X	X	X				-	-	-	JUL-NOV	APR-JUL
	Bat ray					X	X	X	X	X	X	X	X		-	-	-	MAR-NOV	MAR-NOV
	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		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	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Green sturgeon	T	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	-	-	-	JAN-DEC	-
	Leopard shark		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	JAN-DEC	OCT-JUN
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	NOV-FEB	JAN-DEC	OCT-APR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy					X	X	X							-	-	-	JUL-SEP	JUL-SEP
	Pacific herring		X	X	X	X	X	X	X		X	X			NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		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			-	-	-	-	MAR-NOV
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	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	-	-	-	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	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	MAY-OCT	-	OCT-MAR	JAN-DEC	MAY-OCT
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X			-	-	-	JAN-DEC	JAN-DEC
	Topsmelt					X	X	X	X	X	X				APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
187	Bat ray					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

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 16 (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
187	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					-	-	-	-	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	X		-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	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	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
510	Chinook salmon	T	X						X	X	X	X	X		-	-	-	-	AUG-JAN
	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	NOV-FEB
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
538	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
539	Steelhead	T	X	X	X	X	X		X	X	X				-	-	-	-	OCT-JUN
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
577	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
578	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
657	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	APR-FEB	JAN-DEC
															NOV-DEC				
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	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
35	Red abalone		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
61	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
64	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	-
	Yellow shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
634	Globose dune beetle		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
64	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
67	Harbor seal	35-47 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
68	California sea lion	86 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	71-124 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
69	Harbor seal	47-68 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
70	Harbor seal	20 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
71	Harbor seal	85-86 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
72	Harbor seal	136-229 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	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		-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X				-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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
461	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X		-	-	-	-	MAY-NOV
638	Northern red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-	-

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
24	MACKERRICHER STATE PARK	CSP	707/964-9112
28	MENDOCINO COAST BOTANICAL GARDENS	GARDEN BY THE SEA	707/964-4352
39	PUDDING CREEK BEACH AREA	CDFG	

BEACH:

HUN#	Name	Contact	Phone
114	PUDDING CREEK BEACH AREA	CDFG	

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 16 (cont.)

HUMAN USE RESOURCES: (cont.)

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
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171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
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187	JUG HANDLE SR	CDPR	707/937-5804
193	MACKERRICHER SMCA	CDFG	
199	NOYO RIVER FA	CDFG	

MARINA:

HUN#	Name	Contact	Phone
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218	DOLPHIN COVE MARINA		
222	MARINA		
225	NOYO RIVER AND HARBOR	CDFG	

PARK:

HUN#	Name	Contact	Phone
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251	MACKERRICHER SP	CDPR	707/964-9112

Northern California: ESIMAP 17

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
60	Marbled murrelet	E T VERY LOW				X	X	X	X	X	X	X	X		-	-	-
75	Western snowy plover	T 7-42 BIRDS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
76	Brandt's cormorant					X	X	X	X	X	X	X	X		-	-	-
	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	California gull							X	X	X	X	X	X		-	-	-
	Caspian tern				X	X	X	X	X	X	X	X			-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Elegant tern					X	X	X	X	X	X	X			-	-	-
	Glaucous-winged gull		X	X	X	X				X	X	X	X		-	-	-
	Heermann's gull							X	X	X	X	X			-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pelagic cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Ring-billed gull		X	X	X	X			X	X	X	X	X		-	-	-
	Western gull		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
326	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	100 INDIV.				X	X	X	X	X	X	X			MAR-AUG	-	-
	Common murre	516 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	57 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	8 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Western gull	12 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
327	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	47 INDIV.				X	X	X	X	X	X	X			MAR-AUG	-	-
	Brown pelican	E E 131 INDIV.				X	X	X	X	X	X	X			-	-	-
	Common murre	284 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	57 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	42 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Western gull	26 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
341	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	8 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
342	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	55 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	8 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
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		-	-	-
	Surf scoter		X	X	X	X				X	X	X	X	X	-	-	-
	Western grebe		X	X	X	X				X	X	X	X		-	-	-
	White-winged scoter		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
65	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt						X	X	X	X	X				MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN NOV-DEC	-	-	APR-FEB	JAN-DEC
77	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		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	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Pacific herring		X	X	X	X	X	X						X	NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X			APR-NOV	-	-	APR-NOV	APR-NOV
	Silverspotted sculpin			X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab			X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder			X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-JUN	JAN-DEC	-
	Striped surfperch			X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Threespine stickleback			X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Tidepool sculpin			X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt						X	X	X	X	X	X	X		APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
	79	Gobies	HIGH	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
		Sculpin	HIGH	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	187	Bat ray					X	X	X	X	X	X	X		-	-	-	MAR-NOV	MAR-NOV
		Black rockfish		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	MAR-JUN	-	MAR-MAY	JAN-DEC	JAN-DEC
		Blue rockfish		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	JAN-MAY	JAN-MAY	FEB-MAY	JAN-DEC	JAN-DEC	
Brown rockfish			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	MAR-SEP	-	-	JAN-DEC	JAN-DEC	
Cabazon			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	FEB-JUN	JAN-SEP	JAN-SEP	JAN-DEC	FEB-OCT	
California skate			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	DEC-MAR	DEC-MAR	DEC-APR	JAN-DEC	JAN-DEC	
Chilipepper			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	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						-	-	-	-	JUN-SEP
Green sturgeon				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	JAN-AUG	JAN-AUG	JAN-DEC	JAN-DEC	JAN-DEC

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 17 (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
187	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	X		-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	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	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
511	Chinook salmon	T	X						X	X	X	X	X		OCT-JAN	-	-	-	AUG-JAN
	Coho salmon	E E	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
539	Steelhead	T	X	X	X	X	X	X			X	X	X		-	-	-	-	OCT-JUN

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
78	Eelgrass		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
1	Red abalone		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
77	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	-
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
634	Globose dune beetle		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
78	Harbor seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
80	Harbor seal	185-407 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	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		-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X	X			-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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	Internesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X		-	-	-	-	MAY-NOV
638	Northern red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-	-

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
13	CHADBOURNE GULCH	CDFG	
45	SEASIDE CREEK BEACH	CDFG	
50	TEN MILE RIVER BEACH AREA	CDFG	

BEACH:

HUN#	Name	Contact	Phone
118	SEASIDE CREEK BEACH	CDFG	
123	TEN MILE RIVER BEACH AREA	CDFG	

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
208	SOUTH KIBESILLAH GULCH FA	CDFG	

PARK:

HUN#	Name	Contact	Phone
251	MACKERRICHER SP	CDPR	707/964-9112

Northern California: ESIMAP 18

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
60	Marbled murrelet	E T VERY LOW				X	X	X	X	X	X	X	X		-	-	-
81	Marbled murrelet	E T LOW				X	X	X	X	X	X	X	X		-	-	-
82	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
83	Waterfowl		X	X	X	X						X	X	X	-	-	-
	Brown pelican	E E				X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
323	Waterfowl		X	X	X	X						X	X	X	-	-	-
	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	250 NESTS				X	X	X	X	X	X	X	X		MAR-AUG	-	-
	Brown pelican	E E 155 INDIV.				X	X	X	X	X	X	X	X		-	-	-
	Common murre	2,226 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	91 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	8 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Rhinoceros auklet	2 INDIV.				X	X	X	X	X	X	X			APR-AUG	-	-
	Western gull	16 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
324	Brandt's cormorant	889 NESTS				X	X	X	X	X	X	X			MAR-AUG	-	-
	Brown pelican	E E 84 INDIV.				X	X	X	X	X	X	X			-	-	-
	Common murre	9593 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	70 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	42 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Rhinoceros auklet	1 INDIV.				X	X	X	X	X	X				APR-AUG	-	-
	Western gull	56 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	18 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	25 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
339	Black oystercatcher	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	31 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	22 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
340	Black oystercatcher	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	145 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	94 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	20 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		-	-	-
	Surf scoter		X	X	X	X				X	X	X	X		-	-	-
	Western grebe		X	X	X	X				X	X	X	X		-	-	-
	White-winged scoter		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
65	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt					X	X	X	X	X	X				MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN NOV-DEC	-	-	APR-FEB	JAN-DEC
187	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	Bat ray					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	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			-	-	-	-	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
579	Chinook salmon	T	X						X	X	X	X	X	X	OCT-JAN	-	-	-	AUG-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-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 impacts to protected species.

Northern California: ESIMAP 18 (cont.)

BIOLOGICAL RESOURCES: (cont.)

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	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
14	Red abalone		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
	Sea urchins		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	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
-----	-----	- - -----	-	-	-	-	-	-	-	-	-	-	-	-	-----	-----	-----	-----
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
84	Harbor seal	39-109 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
85	Harbor seal	28-71 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
86	California sea lion	58 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	31-66 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	-	-	-	-
302	Harbor porpoise	MODERATE	X	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	-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X	X	X	X	-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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	Interesting	Juveniles	Adults
-----	-----	- - -----	-	-	-	-	-	-	-	-	-	-	-	-	-----	-----	-----	-----	-----
461	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
-----	-----	-----	-----
10	CAPE VIZCAINO	CDFG	
53	WAGES CREEK BEACH	CDFG	
54	WESTPORT-UNION LANDING STATE BEACH	CSP	707/937-5804

BEACH:

HUN#	Name	Contact	Phone
-----	-----	-----	-----
127	WAGES CREEK BEACH	CDFG	
128	WESTPORT-UNION LANDING STATE BEACH	CDFG	707/937-5804

PARK:

HUN#	Name	Contact	Phone
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270	WESTPORT-UNION LANDING SB	CDPR	707/937-5804

Northern California: ESIMAP 19

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
81	Marbled murrelet	E T LOW				X	X	X	X	X	X	X	X		-	-	-
87	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	California gull								X	X	X	X	X	X	-	-	-
	Caspian tern				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			-	-	-
	Least sandpiper		X	X	X	X				X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Sanderling		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Seabirds		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	-	-	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
90	American peregrine falcon	E	X	X	X	X				X	X	X	X		-	-	-
91	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
335	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	34 NESTS			X	X	X	X	X	X	X	X			MAR-AUG	-	-
	Pelagic cormorant	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	40 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
336	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	22 INDIV.			X	X	X	X	X	X	X				MAR-AUG	-	-
	Pelagic cormorant	53 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	40 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
337	Pelagic cormorant	11 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	18 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
338	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	2 INDIV.			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	20 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	14 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			-	-	-
	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			-	-	-
	Surf scoter		X	X	X	X				X	X	X	X		-	-	-
	Western grebe		X	X	X	X				X	X	X	X		-	-	-
	White-winged scoter		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
65	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt					X	X	X	X	X					MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN NOV-DEC	-	-	APR-FEB	JAN-DEC
187	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	Bat ray				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				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					-	-	-	-	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
539	Steelhead	T	X	X	X	X	X			X	X	X			-	-	-	-	OCT-JUN
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-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 impacts to protected species.

Northern California: ESIMAP 19 (cont.)

BIOLOGICAL RESOURCES: (cont.)

HABITAT:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
93	Mendocino Coast Indian paintbrush		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
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

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
87	California sea lion		X X X X X X X X X X X	-	-	-	-
	Harbor seal		X X X X X X X X X X X	-	-	-	-
88	California sea lion	1-472 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	15-23 INDIV.	X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 2-62 INDIV.	X X X X X X X X X X X	-	-	-	-
89	California sea lion	400 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	85-323 INDIV.	X X X X X X X X X X X	-	-	-	-
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	-	-	-	-
	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	-	-	-	-

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
92	Roosevelt elk		X X X X X X X X X X X

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
1	ACCESS		

PARK:

HUN#	Name	Contact	Phone
264	SINKYONE WILDERNESS SP	CDPR	707/986-7711

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 20

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
81	Marbled murrelet	E T LOW				X	X	X	X	X	X	X	X		-	-	-
87	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	California gull								X	X	X	X	X	X	-	-	-
	Caspian tern				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		-	-	-
	Least sandpiper		X	X	X	X				X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Sanderling		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Seabirds		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	-	-	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
102	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
108	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
333	Pelagic cormorant	26 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	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
334	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	81 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	18 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	2 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			-	-	-

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			-	-	-	-	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
540	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
541	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
542	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
558	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
580	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
93	Mendocino Coast Indian paintbrush		X	X	X	X	X	X	X	X	X	X	X	X
108	Oregon Coast Indian paintbrush		X	X	X	X	X	X	X	X	X	X	X	X
109	Oregon Coast Indian paintbrush		X	X	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.

Northern California: ESIMAP 20 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
87	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
103	California sea lion	52 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
104	California sea lion	158 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	10-64 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
105	Harbor seal	13 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
106	California sea lion	3-17 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Steller sea lion	T 1-2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
107	Harbor seal	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	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	-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X	X	X	X	-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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	Interesting	Juveniles	Adults
461	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
48	SINKYONE WILDERNESS STATE PARK	CDFG	707/986-7711

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
196	MATTOLE RIVER ER	CDFG	707/944-5500

PARK:

HUN#	Name	Contact	Phone
264	SINKYONE WILDERNESS SP	CDPR	707/986-7711

Northern California: ESIMAP 21

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
81	Marbled murrelet	E T LOW				X	X	X	X	X	X	X	X		-	-	-
264	Pelagic cormorant	62 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	2 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	X		-	-	-
	Clark's grebe		X	X	X	X					X	X	X		-	-	-
	Common loon		X	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	-	-	-
	White-winged scoter		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		-	-	-	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	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	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
540	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
544	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
581	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
582	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

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	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	X	APR-NOV	APR-NOV	APR-JAN	JAN-DEC	JAN-DEC
	Dungeness crab		X	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	X	SEP-OCT	OCT-APR	MAR-JUL	JAN-DEC	JAN-DEC
	Spot prawn		X	X	X	X	X	X	X	X	X	X	X	X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
110	California sea lion	1,249 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	38-149 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	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		-	-	-	-
	Humpback whale	E MODERATE						X	X	X	X	X			-	-	-	-
	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	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	Interesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV
461	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV

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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 21 (cont.)

BIOLOGICAL RESOURCES: (cont.)

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
47	SHELTER COVE	CDFG	

AIRPORT:

HUN#	Name	Contact	Phone
62	SHELTER COVE AIRPORT		

BEACH:

HUN#	Name	Contact	Phone
120	SHELTER COVE	CDFG	

Northern California: ESIMAP 22

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
81	Marbled murrelet	E T LOW					X	X	X	X	X	X	X		-	-	-
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		-	-	-
	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			-	-	-

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	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	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
543	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
545	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
112	California sea lion	50 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	34 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	-	-	-	-
113	Harbor seal	28 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW					X	X	X	X	X	X			-	-	-	-	MAY-NOV

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HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
22	KING RANGE NATIONAL CONSERVATION AREA	BLM	707/986-5400

Northern 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
81	Marbled murrelet	E T LOW	- - - - X X X X X X X X - -	-	-	-
114	Shorebirds		X X X X - X X X X X X X	-	MAR-APR JUL-OCT	-
252	Pelagic cormorant	17 INDIV.	X X X X X X X X X X X X	MAR-AUG	-	-
	Western gull	2 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	-	-	-
	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	-	-	-
	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	-	-	-
	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	-	-	-

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	-	-	-	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 X - - -	-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X 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
512	Steelhead	T	X X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
187	California market squid		X 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 X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X 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 X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X X X X X X X X X X X X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X X X X X X X X X X X X	-	-	-	-
115	California sea lion	1-519 INDIV.	X X X X X X X X X X X X	-	-	-	-
116	Harbor seal	107-160 INDIV.	X X X X X X X X X X X X	-	-	-	-
117	Steller sea lion	T 5 INDIV.	X X X X X X X X X X X X	-	-	-	-
118	Harbor porpoise	HIGH	X X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
302	Harbor porpoise	MODERATE	X X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Interesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW	- - - - X X X X X X X	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
203	PUNTA GORDA SMR	CDFG	

Northern California: ESIMAP 24

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
37	Shorebirds		X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
81	Marbled murrelet	E T LOW			X	X	X	X	X	X	X	X	X		-	-	-
119	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E			X	X	X	X	X	X	X	X	X		-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
263	Waterfowl		X	X	X	X					X	X	X		-	-	-
	Brandt's cormorant	7 INDIV.			X	X	X	X	X	X	X	X	X		MAR-AUG	-	-
	Pelagic cormorant	19 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	4 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	X	X		-	-	-
	Clark's grebe		X	X	X	X					X	X	X		-	-	-
	Common loon		X	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		-	-	-
	White-winged scoter		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
120	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		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	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Jacksmelt				X	X	X	X	X	X	X				APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Pacific herring		X	X	X	X	X	X	X			X	X		NOV-MAR	NOV-MAR	NOV-MAR	MAR-AUG	NOV-MAR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch				X	X	X	X	X	X	X	X			APR-NOV	-	-	APR-NOV	APR-NOV
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	JUN-AUG	JUN-AUG	JUL-SEP	JUL-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt				X	X	X	X	X	X	X				APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN NOV-DEC	-	-	APR-FEB	JAN-DEC
187	Bat ray				X	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	X					-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	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					-	-	-	-	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
513	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
514	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN

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 24 (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
514	Steelhead	T	X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
546	Chinook salmon	T	X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
547	Steelhead	T	X X X X X X X X X X	-	-	-	-	OCT-JUN
548	Steelhead	T	X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
581	Chinook salmon	T	X X X X X X X X X X X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
583	Coho salmon	T T	X X X X X X X X X X X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

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
120	California bay shrimp		X X X X X X X X X X X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X X X X X X X X X X X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Yellow shore crab		X X X X X X X X X X X	-	-	-	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

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
111	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	-	-	-	-
118	Harbor porpoise	HIGH	X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
121	California sea lion	90-446 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	55-62 INDIV.	X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 1-49 INDIV.	X X X X X X X X X X X	-	-	-	-
122	California sea lion	2-93 INDIV.	X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 9-94 INDIV.	X X X X X X X X X X X	-	-	-	-
123	Harbor seal	97-142 INDIV.	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
111	Leatherback sea turtle	E VERY LOW	X X X X X X X	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
27	MATTOLE RIVER AND BEACH	CDFG	

BEACH:

HUN#	Name	Contact	Phone
108	MATTOLE RIVER AND BEACH	CDFG	

Northern California: ESIMAP 25

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
37	Shorebirds		X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
81	Marbled murrelet	E T LOW			X	X	X	X	X	X	X	X			-	-	-
250	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	293 INDIV.		X	X	X	X	X	X	X					MAR-AUG	-	-
	Double-crested cormorant	274 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	627 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	172 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Rhinoceros auklet	7 INDIV.			X	X	X	X	X	X					APR-AUG	-	-
	Tufted puffin	4 INDIV.			X	X	X	X	X	X					MAY-SEP	-	-
	Western gull	268 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
251	Brandt's cormorant	321 INDIV.		X	X	X	X	X	X	X					MAR-AUG	-	-
	Brown pelican	E E 16 INDIV.			X	X	X	X	X	X	X	X			-	-	-
	Common murre	9360 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pigeon guillemot	1 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Western gull	62 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	X			-	-	-
	Clark's grebe		X	X	X	X							X X X		-	-	-
	Common loon		X	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			-	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
127	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Pacific herring					X	X	X	X						-	-	-	JUN-OCT	JUL-OCT
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch				X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Topsmelt			X	X	X	X	X	X	X					APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
515	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
516	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-APR	NOV-JUN	JAN-SEP	SEP-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
127	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC

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 25 (cont.)

BIOLOGICAL RESOURCES: (cont.)

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
111	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	-	-	-	-
118	Harbor porpoise	HIGH	X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
124	California sea lion	77 INDIV.	X X X X X X X X X X X	-	-	-	-
125	California sea lion	2-25 INDIV.	X X X X X X X X X X X	-	-	-	-
126	California sea lion	3-4769 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	20-36 INDIV.	X X X X X X X X X X X	-	-	MAR-MAY	-
	Steller sea lion	T 360-889 INDIV.	X X X X X X X X X X X	-	-	MAY-AUG	-

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Interesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW	X X X X X X X X	-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	

Northern California: ESIMAP 26

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
81	Marbled murrelet	E T LOW	-	-	-	X	X	X	X	X	X	X	X	-	-	-	-
128	Western snowy plover	T 1-42 BIRDS	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-	-
129	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Brant		X	X	X	X								-	-	-	-
	Clark's grebe		X	X	X	X				X	X	X		-	-	-	-
	Common loon		X	X	X	X	X			X	X	X	X	-	-	-	-
	Common merganser		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		-	-	-	-
	Merlin		X	X	X	X	X			X	X	X	X	-	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-	-
	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	X		-	-	-	-
	Shorebirds	HIGH	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	-	-	-	-
	Western grebe		X	X	X	X	X			X	X	X	X	-	-	-	-
132	Marbled murrelet	E T MODERATE				X	X	X	X	X	X	X	X	-	-	-	-
133	Tundra swan		X	X									X	-	-	-	-
141	American avocet	1000S	X	X	X	X	X			X	X	X	X	-	-	-	-
	Black turnstone	100S	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Black-bellied plover	1000S	X	X	X	X	X			X	X	X	X	-	-	-	-
	Dunlin	10,000S	X	X	X	X	X			X	X	X		-	-	-	-
	Greater yellowlegs	100S	X	X	X	X	X			X	X	X	X	-	-	-	-
	Least sandpiper	10,000S	X	X	X	X				X	X	X	X	-	-	-	-
	Long-billed curlew	1000S	X	X	X	X			X	X	X	X	X	-	-	-	-
	Long-billed dowitcher	100S	X	X	X	X				X	X	X		-	-	-	-
	Marbled godwit	10,000S	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling	1000S	X	X	X	X	X			X	X	X	X	-	-	-	-
	Semipalmated plover	1000S				X	X	X		X	X	X	X	-	-	-	-
	Short-billed dowitcher	1000S				X	X		X	X				-	-	-	-
	Western sandpiper	>100,000	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel	100S				X	X	X		X	X	X		-	-	-	-
	Willet	10,000S	X	X	X	X			X	X	X	X	X	-	-	-	-
249	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-	-
	Brandt's cormorant	178 NESTS				X	X	X	X	X	X	X		MAR-AUG	-	-	-
	Brown pelican	E E 21 INDIV.				X	X	X	X	X	X	X	X	-	-	-	-
	Common murre	16734 INDIV.	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
	Pelagic cormorant	240 INDIV.	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Pigeon guillemot	55 INDIV.				X	X	X	X	X	X			MAY-AUG	-	-	-
	Tufted puffin	8 INDIV.				X	X	X	X	X	X			MAY-SEP	-	-	-
	Western gull	96 INDIV.	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	X	-	-	-	-
	Clark's grebe		X	X	X	X				X	X	X		-	-	-	-
	Common loon		X	X	X	X	X			X	X	X	X	-	-	-	-
	Common murre		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	-	-	-	-
	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	-	-	-	-
	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		-	-	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
65	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X		FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X		SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X		MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt						X	X	X	X	X				MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN NOV-DEC	-	-	APR-FEB	JAN-DEC
131	White seaperch		X	X	X	X	X	X	X	X	X	X	X		MAY-AUG	-	-	JAN-DEC	JAN-DEC
	American shad					X	X	X	X	X	X	X			-	-	-	JUL-NOV	APR-JUL
	Bay goby		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Big skate		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Buffalo sculpin		X	X	X	X	X	X	X	X	X	X	X		JAN-MAY	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X		-	-	FEB-JUN	JAN-DEC	-
	Eulachon		X	X	X	X	X							X	-	JAN-MAY	FEB-JUN	-	DEC-MAY
	Green sturgeon		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Jack mackerel		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	-
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	-
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	NOV-FEB	JAN-DEC	OCT-APR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy								X	X	X				-	-	-	JUL-SEP	JUL-SEP
	Pacific herring		X	X	X	X	X	X	X	X	X	X	X	X	JAN-FEB	JAN-FEB	JAN-APR	APR-OCT	SEP-APR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X		APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sand lance		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-APR	JAN-DEC	JAN-DEC
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Ringtail snailfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		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-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	MAY-OCT
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Topsmelt					X	X	X	X	X	X	X			APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
187	Bat ray					X	X	X	X	X	X	X		-	-	-	MAR-NOV	MAR-NOV	
	Black rockfish		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	MAR-JUN	-	MAR-MAY	JAN-DEC	JAN-DEC	
	Blue rockfish		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	JAN-MAY	JAN-MAY	FEB-MAY	JAN-DEC	JAN-DEC	
	Brown rockfish		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	MAR-SEP	-	-	JAN-DEC	JAN-DEC	

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 26 (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
187	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	X	X	-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	X	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	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
518	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	NOV-MAY	DEC-JUN	JAN-DEC	JAN-DEC
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
519	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	SEP-FEB
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	NOV-MAY	DEC-JUN	JAN-DEC	JAN-DEC
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
584	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	NOV-MAY	DEC-JUN	JAN-DEC	JAN-DEC
585	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
658	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	NOV-MAY	DEC-JUN	JAN-DEC	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
131	Bay mussel		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-OCT	JAN-DEC	JAN-DEC
	Brown rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Lined shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Red rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Softshell clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Yellow shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
118	Harbor porpoise	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
130	California sea lion	2-341 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	71 INDIV.	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	Internesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV
638	Northern red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-	-

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
12	CENTERVILLE BEACH COUNTY PARK	CDFG	916/445-9338

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

Northern California: ESIMAP 27

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
			-	-	-	-	-	-	-	-	-	-	-	-			
76	Brandt's cormorant					X	X	X	X	X	X	X	X		-	-	-
	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	California gull								X	X	X	X	X		-	-	-
	Caspian tern				X	X	X	X	X	X	X	X			-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Elegant tern					X	X	X	X	X	X	X			-	-	-
	Glaucous-winged gull		X	X	X	X	X		X	X	X	X			-	-	-
	Heermann's gull					X	X	X	X	X	X				-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Pelagic cormorant		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Ring-billed gull		X	X	X	X		X	X	X	X	X			-	-	-
	Western gull		X	X	X	X	X	X	X	X	X	X	X		-	-	-
128	Western snowy plover	T 1-42 BIRDS	X	X	X	X	X	X	X	X	X	X	X		MAR-SEP	-	-
129	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Brant		X	X	X	X									-	-	-
	Clark's grebe		X	X	X	X				X	X	X			-	-	-
	Common loon		X	X	X	X	X		X	X	X	X			-	-	-
	Common merganser		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				-	-	-
	Merlin		X	X	X	X			X	X	X	X			-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-	-
	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	HIGH	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		-	-	-
	Western grebe		X	X	X	X			X	X	X	X			-	-	-
132	Marbled murrelet	E T MODERATE			X	X	X	X	X	X	X	X			-	-	-
134	Shorebirds	HIGH	X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
	Tundra swan		X	X									X		-	-	-
	Yellow-billed cuckoo	E				X	X	X	X	X					-	-	-
135	Aleutian cackling goose		X	X	X	X									-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Brown pelican	E E			X	X	X	X	X	X	X	X			-	-	-
	Double-crested cormorant		X	X	X	X	X	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		-	-	-
	Waterfowl		X	X	X	X			X	X	X				-	-	-
136	Western snowy plover	T 15-22 BIRDS	X	X	X	X	X	X	X	X	X	X	X		MAR-SEP	-	-
137	Western snowy plover	T 4-8 BIRDS	X	X	X	X	X	X	X	X	X	X	X		MAR-SEP	-	-
140	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	American wigeon		X	X	X	X			X	X	X				-	-	-
	Brant	1500-20000	X	X	X	X			X	X					-	-	-
	Bufflehead		X	X	X	X			X	X					-	-	-
	Cinnamon teal		X	X	X				X	X	X	X			-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Greater scaup		X	X	X	X			X	X	X				-	-	-
	Green-winged teal		X	X	X	X			X	X	X	X			-	-	-
	Mallard		X	X	X				X	X	X				-	-	-
	Northern pintail		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Northern shoveler		X	X	X	X			X	X	X	X			-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-	-
	Red-breasted merganser		X	X	X	X	X		X	X					-	-	-
	Ruddy duck		X	X	X	X			X	X	X				-	-	-
141	American avocet	1000S	X	X	X	X			X	X	X	X	X		-	-	-
	Black turnstone	100S	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Black-bellied plover	1000S	X	X	X	X			X	X	X	X	X		-	-	-
	Dunlin	10,000S	X	X	X	X			X	X	X				-	-	-
	Greater yellowlegs	100S	X	X	X	X	X		X	X	X	X	X		-	-	-
	Least sandpiper	10,000S	X	X	X	X			X	X	X	X	X		-	-	-
	Long-billed curlew	1000S	X	X	X	X		X	X	X	X	X	X		-	-	-
	Long-billed dowitcher	100S	X	X	X	X			X	X	X				-	-	-
	Marbled godwit	10,000S	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Sanderling	1000S	X	X	X	X	X		X	X	X	X	X		-	-	-
	Semipalmated plover	1000S		X	X	X			X	X	X	X			-	-	-
	Short-billed dowitcher	1000S		X	X		X	X							-	-	-
	Western sandpiper	>100,000	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Whimbrel	100S		X	X	X			X	X	X				-	-	-
	Willet	10,000S	X	X	X	X		X	X	X	X	X	X		-	-	-
143	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Canada goose		X	X	X	X	X	X	X	X	X	X	X		MAR-JUN	-	-
	Cattle egret		X	X	X				X	X	X				-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Terns		X	X	X	X	X	X	X	X	X				-	-	-
147	American kestrel		X	X	X				X	X	X				-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Belted kingfisher		X	X	X	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				-	-	-
	Northern harrier		X	X	X	X	X	X	X	X	X	X	X		MAR-JUN	-	-
	Red-shouldered hawk		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X		-	-	-
148	Yellow-billed cuckoo	E			X	X	X	X	X						-	-	-
149	Burrowing owl		X	X						X	X				-	-	-
462	Black scoter		X	X	X	X			X	X					-	-	-
	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			-	-	-
	Common murre		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		-	-	-
	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		-	-	-
	Red-throated loon		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			-	-	-
	White-winged scoter		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.

BIOLOGICAL RESOURCES: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
			-	-	-	-	-	-	-	-	-	-	-	-					
65	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt						X	X	X	X	X				MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN NOV-DEC	-	-	APR-FEB	JAN-DEC
131	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	American shad				X	X	X	X	X	X	X				-	-	-	JUL-NOV	APR-JUL
	Bay goby		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Big skate		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Buffalo sculpin		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Eulachon		X	X	X	X	X						X		-	JAN-MAY	FEB-JUN	-	DEC-MAY
	Green sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jack mackerel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	NOV-FEB	JAN-DEC	OCT-APR
	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy						X	X	X						-	-	-	JUL-SEP	JUL-SEP
	Pacific herring		X	X	X	X	X	X	X	X	X	X	X	X	JAN-FEB	JAN-FEB	JAN-APR	APR-OCT	SEP-APR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sand lance		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-APR	JAN-DEC	JAN-DEC
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Ringtail snailfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		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-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT

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 27 (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
187	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	X		-		JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	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	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
519	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	SEP-FEB
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-APR	NOV-MAY	DEC-JUN	JAN-DEC	JAN-DEC
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
520	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	SEP-FEB
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
521	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
586	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	SEP-FEB
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	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
131	Bay mussel		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-OCT	JAN-DEC	JAN-DEC
	Brown rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Lined shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Red rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Softshell clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Yellow shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
139	Brown rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUL	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Geoduck		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Green crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Horseneck gaper		X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	-	-	JAN-DEC	JAN-DEC
	Lewis's moonsnail		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Pacific gaper		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Red rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
144	Pacific razor clam	LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Pacific sand crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
146	California butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
	Cockles		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Ghost shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Manila clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	JUN-AUG	JAN-DEC	JAN-DEC
	Pacific littleneck	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-SEP	JAN-DEC	JAN-DEC
	Softshell clam		X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC
	Washington butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
118	Harbor porpoise	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
138	Harbor seal	17-487 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
140	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor porpoise		X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
142	Harbor seal	40-48 INDIV.	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	Internesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW					X	X	X	X	X	X	X		-	-	-	-	MAY-NOV

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
49	TABLE BLUFF COUNTY PARK	CDFG	

BOAT RAMP:

HUN#	Name	Contact	Phone
132	CRAB COUNTY PARK PRESERVE	CDFG	

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

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 27 (cont.)

HUMAN USE RESOURCES: (cont.)

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
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169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
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179	EEL RIVER WA	CDFG	707/445-6493
209	TABLE BLUFF ER	CDFG	

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
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298	HUMBOLDT BAY NWR	USFWS	707/733-5406

Northern California: ESIMAP 28

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
129	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brant		X	X	X	X									-	-	-
	Clark's grebe		X	X	X	X				X	X	X			-	-	-
	Common loon		X	X	X	X	X			X	X	X	X		-	-	-
	Common merganser		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			-	-	-
	Merlin		X	X	X	X				X	X	X	X		-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-	-
	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	X			-	-	-	-
	Shorebirds	HIGH	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	-	-	-	-
	Western grebe		X	X	X	X				X	X	X	X	-	-	-	-
132	Marbled murrelet	E T MODERATE			X	X	X	X	X	X	X	X		-	-	-	-
137	Western snowy plover	T 4-8 BIRDS	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-	-
140	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	American wigeon		X	X	X	X				X	X	X		-	-	-	-
	Brant	1500-20000	X	X	X	X				X	X			-	-	-	-
	Bufflehead		X	X	X	X				X	X			-	-	-	-
	Cinnamon teal		X	X	X					X	X	X	X	-	-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Greater scaup		X	X	X	X				X	X	X		-	-	-	-
	Green-winged teal		X	X	X	X				X	X	X	X	-	-	-	-
	Mallard		X	X	X					X	X	X		-	-	-	-
	Northern pintail		X	X	X	X	X		X	X	X	X	X	-	-	-	-
	Northern shoveler		X	X	X	X				X	X	X	X	-	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-	-
	Red-breasted merganser		X	X	X	X	X			X	X			-	-	-	-
	Ruddy duck		X	X	X	X				X	X	X		-	-	-	-
141	American avocet	1000S	X	X	X	X				X	X	X	X	-	-	-	-
	Black turnstone	100S	X	X	X	X	X		X	X	X	X	X	-	-	-	-
	Black-bellied plover	1000S	X	X	X	X	X			X	X	X	X	-	-	-	-
	Dunlin	10,000S	X	X	X	X	X			X	X	X		-	-	-	-
	Greater yellowlegs	100S	X	X	X	X	X			X	X	X	X	-	-	-	-
	Least sandpiper	10,000S	X	X	X	X				X	X	X	X	-	-	-	-
	Long-billed curlew	1000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Long-billed dowitcher	100S	X	X	X	X				X	X	X		-	-	-	-
	Marbled godwit	10,000S	X	X	X	X	X		X	X	X	X	X	-	-	-	-
	Sanderling	1000S	X	X	X	X	X			X	X	X	X	-	-	-	-
	Semipalmated plover	1000S			X	X	X			X	X	X	X	-	-	-	-
	Short-billed dowitcher	1000S			X	X		X	X					-	-	-	-
	Western sandpiper	>100,000	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel	100S			X	X	X			X	X	X		-	-	-	-
	Willet	10,000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
143	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Canada goose		X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
	Cattle egret		X	X	X					X	X	X		-	-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
147	American kestrel		X	X	X					X	X	X		-	-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Belted kingfisher		X	X	X	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		-	-	-	-
	Northern harrier		X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
	Red-shouldered hawk		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
149	Burrowing owl		X	X						X	X			-	-	-	-
150	Aleutian cackling goose		X	X	X	X								-	-	-	-
151	Brown pelican	E E			X	X	X	X	X	X	X	X		-	-	-	-
	Canvasback		X	X	X					X	X			-	-	-	-
	Common loon		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-throated loon		X	X	X	X	X			X	X			-	-	-	-
	Redhead		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		-	-	-	-
154	Brown pelican	E E HIGH								X	X	X		-	-	-	-
	Elegant tern	HIGH				X	X	X	X	X	X	X		-	-	-	-
	Wading birds	HIGH	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
157	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
	Wading birds	200	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
158	Band-tailed pigeon		X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
159	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
273	Double-crested cormorant	39 NESTS	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
462	Black scoter		X	X	X	X				X	X			-	-	-	-
	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	X	-	-	-	-
	Common murre		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	-	-	-	-
	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	-	-	-	-
	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		-	-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-	-
626	Bald eagle	E	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 impacts to protected species.

Northern California: ESIMAP 28 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
65	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt						X	X	X	X	X				MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	APR-FEB	JAN-DEC
														NOV-DEC					
131	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	American shad					X	X	X	X	X	X	X			-	-	-	JUL-NOV	APR-JUL
	Bay goby		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Big skate		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Buffalo sculpin		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Eulachon		X	X	X	X	X						X		-	JAN-MAY	FEB-JUN	-	DEC-MAY
	Green sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jack mackerel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	NOV-FEB	JAN-DEC	OCT-APR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy								X	X	X				-	-	-	JUL-SEP	JUL-SEP
	Pacific herring		X	X	X	X	X	X	X	X	X	X	X	X	JAN-FEB	JAN-FEB	JAN-APR	APR-OCT	SEP-APR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sand lance		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-APR	JAN-DEC	JAN-DEC
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Ringtail snailfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		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-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	MAY-OCT
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Topsmelt					X	X	X	X	X	X				APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
139	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-OCT	AUG-DEC	JAN-DEC	JAN-DEC
	Bay goby		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	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		-	-	-	SEP-JUN	SEP-JUN
	Brown rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Chinook salmon	T				X	X	X	X	X	X	X	X	X	-	-	-	MAR-NOV	JUL-DEC
	Coastal cutthroat trout					X	X	X			X	X	X		-	-	-	MAR-MAY	AUG-OCT
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-MAY	JAN-DEC
	Copper rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Grass rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt					X	X	X	X	X	X				APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	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	DEC-JAN	DEC-JAN	JAN-FEB	JAN-DEC	JAN-DEC
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	OCT-FEB	JAN-DEC	OCT-MAR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy								X	X	X				-	-	-	JUL-SEP	JUL-SEP
	Pacific sand lance		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-APR	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rubberlip surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		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			-	-	-	-	MAR-NOV
	Shiner surfperch	VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAY-DEC	JAN-DEC
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	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
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Steelhead	T	X	X	X	X							X		-	-	-	MAR-MAY	DEC-MAR
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-SEP	JUL-DEC	JAN-DEC
	Topsmelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	APR-FEB	JAN-DEC
	White croaker					X	X	X	X	X					-	-	-	APR-SEP	APR-SEP
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
145	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
151	Bat ray					X	X	X	X	X	X	X			-	-	-	MAR-NOV	MAR-NOV
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Green sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Leopard shark		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	JAN-DEC
	Sevengill shark					X	X	X	X	X	X	X			-	-	-	-	MAR-NOV
	Spiny dogfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
153	Surfperch	HIGH				X	X	X							APR-JUN	-	-	APR-JUN	APR-JUN
156	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
161	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-MAY	JAN-DEC	JAN-DEC
	Blue rockfish		X	X	X	X				X	X	X			-	-	-	SEP-JUN	SEP-JUN
	Brown rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Copper rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Grass rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	-	-	JAN-DEC	JAN-DEC
	Lingcod		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JAN	DEC-JAN	JAN-FEB	JAN-DEC	JAN-DEC
	Monkeyface prickleback		X	X	X	X	X	X	X	X	X	X	X	X	JAN-APR	-	-	JAN-DEC	JAN-DEC
	Pacific halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Rock greenling		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
187	Bat ray					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</														

Northern California: ESIMAP 28 (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
187	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														-	-	-	-	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														-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	X	X	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														-	-	-	-	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														-	-	-	-	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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
521	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
522	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
549	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
570	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
586	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	SEP-FEB
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
587	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
588	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
649	Pacific herring	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-MAR	JAN-MAY	APR-OCT	NOV-APR

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
131	Bay mussel		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-OCT	JAN-DEC	JAN-DEC
	Brown rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Lined shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Red rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Softshell clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Yellow shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
139	Brown rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUL	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Geoduck		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Green crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Horseneck gaper		X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	-	-	JAN-DEC	JAN-DEC
	Lewis's moonsnail		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Pacific gaper		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Red rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
144	Pacific razor clam	LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Pacific sand crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
146	California butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
	Cockles		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Ghost shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Manila clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	JUN-AUG	JAN-DEC	JAN-DEC
	Pacific littleneck	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-SEP	JAN-DEC	JAN-DEC
	Softshell clam		X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC
	Washington butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
155	Horseneck gaper	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	-	-	JAN-DEC	JAN-DEC
	Pacific gaper	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Washington butterclam	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
161	Bay mussel		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-OCT	JAN-DEC	JAN-DEC
	Black tegula		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Brown tegula		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California mussel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	JAN-DEC	JAN-DEC
	California native oyster		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Lined shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Purple shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC

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

Northern California: ESIMAP 28 (cont.)

BIOLOGICAL RESOURCES: (cont.)

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
111	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	-	-	-	-
118	Harbor porpoise	HIGH	X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
140	California sea lion		X X X X X X X X X X X	-	-	-	-
	Harbor porpoise		X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
152	Harbor seal	1045-1132 INDIV.	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
111	Leatherback sea turtle	E VERY LOW	X X X X X X X X X	-	-	-	-	MAY-NOV
638	Northern red-legged frog		X X X X X X X X X X X	MAR-JUL	-	-	-	-

HUMAN USE RESOURCES:

BOAT RAMP:

HUN#	Name	Contact	Phone
135	FIELDS LANDING WHARF	CDFG	

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

HOIST:

HUN#	Name	Contact	Phone
175	HARBOR MARINE SERVICE WHARF	CDFG	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
179	EEL RIVER WA	CDFG	707/445-6493
181	ELK RIVER WA	CDFG	707/445-6493

MARINA:

HUN#	Name	Contact	Phone
230	SOUTH BAY MARINA PIER	CDFG	

WATER INTAKE:

HUN#	Name	Contact	Phone
295	KUIPER MARICULTURE INC.	CDFG	

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
298	HUMBOLDT BAY NWR	USFWS	707/733-5406

Northern California: ESIMAP 29

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
132	Marbled murrelet	E T MODERATE				X	X	X	X	X	X	X	X		-	-	-
137	Western snowy plover	T 4-8 BIRDS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
140	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X						X	X	X	-	-	-
	Brant	1500-20000	X	X	X	X							X	X	-	-	-
	Bufflehead		X	X	X	X							X	X	-	-	-
	Cinnamon teal		X	X	X						X	X	X	X	-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Greater scaup		X	X	X	X							X	X	-	-	-
	Green-winged teal		X	X	X	X					X	X	X	X	-	-	-
	Mallard		X	X	X								X	X	-	-	-
	Northern pintail		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Northern shoveler		X	X	X	X						X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X			FEB-AUG	-	-
	Red-breasted merganser		X	X	X	X	X						X	X	-	-	-
	Ruddy duck		X	X	X	X							X	X	-	-	-
141	American avocet	1000S	X	X	X	X	X			X	X	X	X	X	-	-	-
	Black turnstone	100S	X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Black-bellied plover	1000S	X	X	X	X	X			X	X	X	X	X	-	-	-
	Dunlin	10,000S	X	X	X	X	X						X	X	-	-	-
	Greater yellowlegs	100S	X	X	X	X	X			X	X	X	X	X	-	-	-
	Least sandpiper	10,000S	X	X	X	X				X	X	X	X	X	-	-	-
	Long-billed curlew	1000S	X	X	X	X			X	X	X	X	X	X	-	-	-
	Long-billed dowitcher	100S	X	X	X	X							X	X	-	-	-
	Marbled godwit	10,000S	X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Sanderling	1000S	X	X	X	X	X			X	X	X	X	X	-	-	-
	Semipalmated plover	1000S			X	X	X			X	X	X	X	X	-	-	-
	Short-billed dowitcher	1000S			X	X		X	X						-	-	-
	Western sandpiper	>100,000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Whimbrel	100S			X	X	X			X	X	X			-	-	-
	Willet	10,000S	X	X	X	X			X	X	X	X	X	X	-	-	-
143	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Canada goose		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Cattle egret		X	X	X								X	X	-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns			X	X	X	X	X	X	X	X	X	X	X	-	-	-
147	American kestrel		X	X	X								X	X	-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Belted kingfisher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Dabbling ducks		X	X	X	X							X	X	-	-	-
	Diving ducks		X	X	X	X							X	X	-	-	-
	Northern harrier		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Red-shouldered hawk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
149	Burrowing owl		X	X									X	X	-	-	-
151	Brown pelican	E E				X	X	X	X	X	X	X	X	X	-	-	-
	Canvasback		X	X	X								X	X	-	-	-
	Common loon		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	-	-	-
	Pacific loon				X	X	X						X	X	-	-	-
	Red-throated loon		X	X	X	X	X						X	X	-	-	-
	Redhead		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	-	-	-
160	Brandt's cormorant					X	X	X	X	X	X	X	X		-	-	-
	Common loon		X	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		-	-	-
	Harlequin duck		X	X	X	X	X	X		X	X	X	X		-	-	-
	Horned grebe		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-necked grebe		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	-	-	-
162	Brant		X	X	X	X							X	X	-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns			X	X	X	X	X	X	X	X	X	X		-	-	-
164	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Canada goose		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
165	Rock sandpiper	2 BIRDS	X	X	X	X							X	X	-	-	-
167	Brant		X	X	X	X	X	X					X	X	-	-	-
	Osprey		X	X	X	X	X	X	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	-	-	-
168	Shorebirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
171	Marbled murrelet	E T				X	X	X	X	X	X	X	X		-	-	-
172	Redhead		X	X									X	X	-	-	-
173	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
196	Aleutian cackling goose		X	X	X	X									-	-	-
	American kestrel		X	X	X								X	X	-	-	-
	Dabbling ducks		X	X	X	X							X	X	-	-	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds	HIGH	X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
462	Black scoter		X	X	X	X							X	X	-	-	-
	Brandt's cormorant				X	X	X	X	X	X	X	X	X		-	-	-
	Clark's grebe		X	X	X	X							X	X	-	-	-
	Common loon		X	X	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	-	-	-

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 29 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
462	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			-	-	-
	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			-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X			FEB-AUG	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
65	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt					X	X	X	X	X	X				MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	APR-FEB	JAN-DEC
															NOV-DEC				
139	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-OCT	AUG-DEC	JAN-DEC	JAN-DEC
	Bay goby		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	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		-	-	-	SEP-JUN	SEP-JUN
	Brown rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Chinook salmon	T			X	X	X	X	X	X	X	X	X		-	-	-	MAR-NOV	JUL-DEC
	Coastal cutthroat trout				X	X	X			X	X	X			-	-	-	MAR-MAY	AUG-OCT
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-MAY	JAN-DEC
	Copper rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Grass rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt					X	X	X	X	X	X	X			APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	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	DEC-JAN	DEC-JAN	JAN-FEB	JAN-DEC	JAN-DEC
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	OCT-FEB	JAN-DEC	OCT-MAR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy					X	X	X							-	-	-	JUL-SEP	JUL-SEP
	Pacific sand lance		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-APR	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rubberlip surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		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
	Shiner surfperch	VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAY-DEC	JAN-DEC
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	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
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Steelhead	T	X	X	X	X								X	-	-	-	MAR-MAY	DEC-MAR
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-SEP	JUL-DEC	JAN-DEC
	Topsmelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	APR-FEB	JAN-DEC
	White croaker				X	X	X	X	X						-	-	-	APR-SEP	APR-SEP
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
145	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
151	Bat ray				X	X	X	X	X	X	X	X			-	-	-	MAR-NOV	MAR-NOV
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Green sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Leopard shark		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	JAN-DEC
	Sevengill shark				X	X	X	X	X	X	X	X			-	-	-	-	MAR-NOV
	Spiny dogfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
153	Surfperch	HIGH			X	X	X								APR-JUN	-	-	APR-JUN	APR-JUN
156	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
161	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-MAY	JAN-DEC	JAN-DEC
	Blue rockfish		X	X	X	X	X			X	X	X	X		-	-	-	SEP-JUN	SEP-JUN
	Brown rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Copper rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Grass rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	-	-	JAN-DEC	JAN-DEC
	Lingcod		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JAN	DEC-JAN	JAN-FEB	JAN-DEC	JAN-DEC
	Monkeyface prickpleback		X	X	X	X	X	X	X	X	X	X	X	X	JAN-APR	-	-	JAN-DEC	JAN-DEC
	Pacific halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Rock greenling		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
163	Green sturgeon		X	X	X			X	X	X	X	X	X		-	-	-	JUL-DEC	JUL-MAR
	Pacific halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
187	Bat ray				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							-	-	-	-	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

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 29 (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
187	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	X		-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		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
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
522	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
539	Steelhead	T	X	X	X	X	X				X	X	X		-	-	-	-	OCT-JUN
588	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
589	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAY
649	Pacific herring	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-MAR	JAN-MAY	APR-OCT	NOV-APR

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
139	Brown rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUL	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Geoduck		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Green crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Horseneck gaper		X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	-	-	JAN-DEC	JAN-DEC
	Lewis's moonsnail		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Pacific gaper		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Red rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
144	Pacific razor clam	LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Pacific sand crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
146	California butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
	Cockles		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Ghost shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Manila clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	JUN-AUG	JAN-DEC	JAN-DEC
	Pacific littleneck	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-SEP	JAN-DEC	JAN-DEC
	Softshell clam		X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC
	Washington butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
161	Bay mussel		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-OCT	JAN-DEC	JAN-DEC
	Black tegula		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Brown tegula		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California mussel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	JAN-DEC	JAN-DEC
	California native oyster		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Lined shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Purple shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
170	Pacific oyster	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
118	Harbor porpoise	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
140	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor porpoise		X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
166	Harbor seal	136-325 INDIV.	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
111	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
169	Beaver		X	X	X	X	X	X	X	X	X	X	X	X
	Muskrat		X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

AIRPORT:

HUN#	Name	Contact	Phone
57	EUREKA MUNICIPAL AIRPORT		

AQUACULTURE:

HUN#	Name	Contact	Phone
70	COAST OYSTER	COAST OYSTER	707/442-2947
71	COAST OYSTER	COAST OYSTER	707/442-2974
83	MAD RIVER SLOUGH MARICULTURE SITES	KUIPER MARICULTURE	707/822-9057
84	MAD RIVER SLOUGH MARICULTURES SITES	CDFG	

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 29 (cont.)

HUMAN USE RESOURCES: (cont.)

85	NORTH HUMBOLDT BAY	CDFG	
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BEACH:

HUN#	Name	Contact	Phone
93	BLM PROPERTY	BLM	

BOAT RAMP:

HUN#	Name	Contact	Phone
134	EUREKA BOAT RAMP	CDFG	

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
181	ELK RIVER WA	CDFG	707/445-6493
183	EUREKA SLOUGH WA	CDFG	
194	MAD RIVER SLOUGH WA	CDFG	707/445-6493

MARINA:

HUN#	Name	Contact	Phone
217	CHEVRON DOCK	CDFG	
219	HUMBOLDT BAY HARBOR CRUISE DOCK	CDFG	
223	MARINA		
229	SMALL CRAFT HARBOR	CDFG	
233	UNOCAL DOCK	CDFG	
234	WOODLEY ISLAND MARINA	CDFG	

PARK:

HUN#	Name	Contact	Phone
245	FORT HUMBOLDT SHP	CDPR	707/445-6567

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
298	HUMBOLDT BAY NWR	USFWS	707/733-5406

Northern California: ESIMAP 30

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
140	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X					X	X	X		-	-	-
	Brant	1500-20000	X	X	X	X						X	X		-	-	-
	Bufflehead		X	X	X	X						X	X		-	-	-
	Cinnamon teal		X	X	X					X	X	X	X		-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Greater scaup		X	X	X	X					X	X	X		-	-	-
	Green-winged teal		X	X	X	X				X	X	X	X		-	-	-
	Mallard		X	X	X						X	X	X		-	-	-
	Northern pintail		X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Northern shoveler		X	X	X	X				X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-
	Red-breasted merganser		X	X	X	X	X					X	X		-	-	-
	Ruddy duck		X	X	X	X					X	X	X		-	-	-
141	American avocet	1000S	X	X	X	X	X			X	X	X	X	X	-	-	-
	Black turnstone	100S	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black-bellied plover	1000S	X	X	X	X	X			X	X	X	X	X	-	-	-
	Dunlin	10,000S	X	X	X	X	X				X	X	X		-	-	-
	Greater yellowlegs	100S	X	X	X	X	X			X	X	X	X	X	-	-	-
	Least sandpiper	10,000S	X	X	X	X				X	X	X	X	X	-	-	-
	Long-billed curlew	1000S	X	X	X	X			X	X	X	X	X	X	-	-	-
	Long-billed dowitcher	100S	X	X	X	X					X	X	X		-	-	-
	Marbled godwit	10,000S	X	X	X	X	X		X	X	X	X	X	X	-	-	-
	Sanderling	1000S	X	X	X	X	X			X	X	X	X	X	-	-	-
	Semipalmated plover	1000S		X	X	X			X	X	X	X	X		-	-	-
	Short-billed dowitcher	1000S		X	X			X	X						-	-	-
	Western sandpiper	>100,000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Whimbrel	100S		X	X	X			X	X	X				-	-	-
	Willet	10,000S	X	X	X	X			X	X	X	X	X	X	-	-	-
143	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Canada goose		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Cattle egret		X	X	X						X	X	X		-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns			X	X	X	X	X	X	X	X	X	X	X	-	-	-
147	American kestrel		X	X	X						X	X	X		-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Belted kingfisher		X	X	X	X	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		-	-	-
	Northern harrier		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Red-shouldered hawk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
158	Band-tailed pigeon		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-
194	American avocet		X	X	X	X	X			X	X	X	X		-	-	-
	American bittern		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	American kestrel		X	X	X						X	X	X		-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X					X	X	X	X	-	-	-
	Black-bellied plover		X	X	X	X					X	X	X		-	-	-
	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Bonaparte's gull			X	X						X	X			-	-	-
	Bufflehead		X	X	X	X					X	X			-	-	-
	Caspian tern			X	X	X	X	X	X	X	X	X			-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Dunlin		X	X	X	X	X				X	X	X		-	-	-
	Forster's tern		X	X	X					X	X	X	X	X	-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Greater scaup		X	X	X	X					X	X	X		-	-	-
	Green-winged teal		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Least sandpiper		X	X	X	X				X	X	X	X	X	-	-	-
	Marbled godwit		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Merlin		X	X	X	X				X	X	X	X		-	-	-
	Mew gull		X	X	X	X					X	X	X		-	-	-
	Northern harrier		X	X	X	X				X	X	X	X		-	-	-
	Northern pintail		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey			X	X	X	X	X	X	X					-	-	-
	Pied-billed grebe		X	X	X	X				X	X	X	X		-	-	-
	Ruddy duck		X	X	X	X	X				X	X	X		-	-	-
	Western gull		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
196	Aleutian cackling goose		X	X	X	X									-	-	-
	American kestrel		X	X	X					X	X	X			-	-	-
	Dabbling ducks		X	X	X	X					X	X	X		-	-	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds	HIGH	X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
197	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
248	Double-crested cormorant	286 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X			FEB-AUG	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
139	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-OCT	AUG-DEC	JAN-DEC	JAN-DEC
	Bay goby		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	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		-	-	-	SEP-JUN	SEP-JUN
	Brown rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Chinook salmon	T		X	X	X	X	X	X	X	X	X	X		-	-	-	MAR-NOV	JUL-DEC
	Coastal cutthroat trout			X	X	X				X	X	X			-	-	-	MAR-MAY	AUG-OCT
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-MAY	JAN-DEC
	Copper rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Grass rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt			X	X	X	X	X	X	X					APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	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	DEC-JAN	DEC-JAN	JAN-FEB	JAN-DEC	JAN-DEC
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	OCT-FEB	JAN-DEC	OCT-MAR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP

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 30 (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
139	Northern anchovy									X	X	X			-	-	-	JUL-SEP	JUL-SEP
	Pacific sand lance		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-APR	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rubberlip surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		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	X	X	-	-	-	-	MAR-NOV
	Shiner surfperch	VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAY-DEC	JAN-DEC
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	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
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Steelhead	T	X	X	X	X								X	-	-	-	MAR-MAY	DEC-MAR
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-SEP	JUL-DEC	JAN-DEC
	Topsmelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	APR-FEB	JAN-DEC
	White croaker					X	X	X	X	X	X				-	-	-	APR-SEP	APR-SEP
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
145	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
156	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
163	Green sturgeon		X	X	X			X	X	X	X	X	X	X	-	-	-	JUL-DEC	JUL-MAR
	Pacific halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
198	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
523	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAY
524	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
539	Steelhead	T	X	X	X	X	X							X	-	-	-	-	OCT-JUN
550	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAY
551	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAY
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
552	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
553	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
554	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
588	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
589	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAY
590	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAY
591	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
592	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
593	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	DEC-MAY
594	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
595	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
596	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
597	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
598	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
599	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
600	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
645	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-MAY	FEB-JUL	JAN-DEC	DEC-MAY
649	Pacific herring	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-MAR	JAN-MAY	APR-OCT	NOV-APR

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
139	Brown rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUL	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Geoduck		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Green crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Horseneck gaper		X	X	X	X	X	X	X	X	X	X	X	X	FEB-APR	-	-	JAN-DEC	JAN-DEC
	Lewis's moonsnail		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Pacific gaper		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Red rock crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
146	California butterclam		X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-	-	JAN-DEC
	Cockles		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Ghost shrimp		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Manila clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	JUN-AUG	JAN-DEC	JAN-DEC
	Pacific littleneck	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-SEP	JAN-DEC	JAN-DEC
	Softshell clam		X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC

Northern California: ESIMAP 30 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE: (cont.)

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
146	Washington butterclam		X X X X X X X X X X X	MAR-NOV	-	-	-	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
140	California sea lion		X X X X X X X X X X X	-	-	-	-
	Harbor porpoise		X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
195	Harbor seal	113-126 INDIV.	X X X X X X X X X X X	-	-	-	-

HUMAN USE RESOURCES:

AIRPORT:

HUN#	Name	Contact	Phone
60	MURRAY FIELD AIRPORT		

AQUACULTURE:

HUN#	Name	Contact	Phone
66	ARCATA MARSH	CDFG	
86	NORTH HUMBOLDT BAY MARICULTURE SITES	NORTH BAY SHELLFISH	707/839-4723

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	
172	ESSENTIAL FISH HABITAT HAPC - SEAGRASS	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
184	FAY SLOUGH WA	CDFG	707/445-6493
194	MAD RIVER SLOUGH WA	CDFG	707/445-6493

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
298	HUMBOLDT BAY NWR	USFWS	707/733-5406

Northern California: ESIMAP 31

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
132	Marbled murrelet	E T MODERATE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
140	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X					X	X	X		-	-	-
	Brant	1500-20000	X	X	X	X						X	X		-	-	-
	Bufflehead		X	X	X	X						X	X		-	-	-
	Cinnamon teal		X	X	X					X	X	X	X		-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Greater scaup		X	X	X	X					X	X	X		-	-	-
	Green-winged teal		X	X	X	X				X	X	X	X		-	-	-
	Mallard		X	X	X						X	X	X		-	-	-
	Northern pintail		X	X	X	X		X	X	X	X	X	X		-	-	-
	Northern shoveler		X	X	X	X				X	X	X	X		-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-	-
	Red-breasted merganser		X	X	X	X	X				X	X		-	-	-	-
	Ruddy duck		X	X	X	X					X	X	X	-	-	-	-
141	American avocet	1000S	X	X	X	X			X	X	X	X	X	-	-	-	-
	Black turnstone	100S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Black-bellied plover	1000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Dunlin	10,000S	X	X	X	X					X	X	X	-	-	-	-
	Greater yellowlegs	100S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Least sandpiper	10,000S	X	X	X	X				X	X	X	X	-	-	-	-
	Long-billed curlew	1000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Long-billed dowitcher	100S	X	X	X	X					X	X	X	-	-	-	-
	Marbled godwit	10,000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Sanderling	1000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Semipalmated plover	1000S		X	X	X				X	X	X	X	-	-	-	-
	Short-billed dowitcher	1000S			X	X		X	X					-	-	-	-
	Western sandpiper	>100,000	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel	100S		X	X	X		X	X	X				-	-	-	-
	Willet	10,000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
143	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Canada goose		X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
	Cattle egret		X	X	X					X	X	X		-	-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
147	American kestrel		X	X	X					X	X	X		-	-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Belted kingfisher		X	X	X	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		-	-	-	-
	Northern harrier		X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
	Red-shouldered hawk		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
196	Aleutian cackling goose		X	X	X	X								-	-	-	-
	American kestrel		X	X	X					X	X	X		-	-	-	-
	Dabbling ducks		X	X	X	X				X	X	X		-	-	-	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Shorebirds	HIGH	X	X	X	X		X	X	X	X	X	X	-	MAR-APR JUL-OCT	-	-
199	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Belted kingfisher		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Brown pelican	E E		X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Merlin		X	X	X	X	X			X	X	X	X	MAR-JUN	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Raptors		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Shorebirds	HIGH	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
200	Brandt's cormorant			X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Brown pelican	E E			X	X	X	X	X	X	X	X	X	-	-	-	-
	California gull					X	X	X	X	X	X	X	X	-	-	-	-
	Caspian tern			X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Elegant tern				X	X	X	X	X	X	X	X	X	-	-	-	-
	Glaucous-winged gull		X	X	X	X	X			X	X	X	X	-	-	-	-
	Heermann's gull					X	X	X	X	X	X	X	X	-	-	-	-
	Pelagic cormorant		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Ring-billed gull		X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Western gull		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
201	Western snowy plover	T 10-12 BIRDS		X	X	X	X	X	X	X				MAR-SEP	-	-	-
202	Western snowy plover	T 5-14 BIRDS		X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-	-
203	Marbled murrelet	E T HIGH		X	X	X	X	X	X	X	X			-	-	-	-
205	Black turnstone	100S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Black-bellied plover	1000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Dunlin	10,000S	X	X	X	X				X	X	X		-	-	-	-
	Greater yellowlegs	100S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Least sandpiper	10,000S	X	X	X	X				X	X	X	X	-	-	-	-
	Long-billed curlew	1000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Long-billed dowitcher	100S	X	X	X	X				X	X	X		-	-	-	-
	Marbled godwit	10,000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Sanderling	1000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Semipalmated plover	1000S		X	X	X		X	X	X	X			-	-	-	-
	Short-billed dowitcher	1000S			X	X		X	X					-	-	-	-
	Western sandpiper	>100,000	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel	100S		X	X	X		X	X	X				-	-	-	-
	Willet	10,000S	X	X	X	X		X	X	X	X	X	X	-	-	-	-
462	Black scoter		X	X	X	X				X	X			-	-	-	-
	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			-	-	-	-
	Common murre		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	-	-	-	-
	Eared grebe		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	-	-	-	-
	Red-throated loon		X	X	X	X				X	X			-	-	-	-
	Surf scoter		X	X	X	X				X	X	X		-	-	-	-
	Western grebe		X	X	X	X			X	X	X	X		-	-	-	-
	White-winged scoter		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.

BIOLOGICAL RESOURCES: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
65	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt						X	X	X	X	X				MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN NOV-DEC	-	-	APR-FEB	JAN-DEC
139	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	Arrow goby		X	X	X	X	X	X	X	X	X	X	X	X	AUG-OCT	AUG-OCT	AUG-DEC	JAN-DEC	JAN-DEC
	Bay goby		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	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			-	-	-	SEP-JUN	SEP-JUN
	Brown rockfish		X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Chinook salmon	T			X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-NOV	JUL-DEC
	Coastal cutthroat trout				X	X	X		X	X	X				-	-	-	MAR-MAY	AUG-OCT
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-MAY	JAN-DEC
	Copper rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Grass rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt				X	X	X	X	X	X	X				APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	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	DEC-JAN	DEC-JAN	JAN-FEB	JAN-DEC	JAN-DEC
	Longfin smelt		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JAN	NOV-JAN	OCT-FEB	JAN-DEC	OCT-MAR
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy							X	X	X					-	-	-	JUL-SEP	JUL-SEP
	Pacific sand lance		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-APR	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rubberlip surfperch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		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			-	-	-	-</	

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 31 (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
204	Saddleback gunnel		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch		X X X X X X X X X X X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Speckled sanddab		X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Starry flounder		X X X X X X X X X X X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Surf smelt		X X X X X X X X X X X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X X X X X X X X X X X	MAR-JUL	MAR-JUN	MAR-AUG	JUN-MAR	JAN-DEC
	Topsmelt		X X X X X X X X X	APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
512	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
555	Coastal cutthroat trout		X X X X X X X X X X X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X X X X X X X X X X X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X X X X X X X X X X	-	-	-	-	SEP-JUN
557	Coastal cutthroat trout		X X X X X X X X X X X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X X X X X X X X X X X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
588	Coastal cutthroat trout		X X X X X X X X X X X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X X X X X X X X X X X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X X X X X X X X X X X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
592	Coastal cutthroat trout		X X X X X X X X X X X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
601	Chinook salmon	T	X X X X X X X X X X X	NOV-FEB	NOV-MAY	DEC-JUL	JAN-DEC	OCT-FEB
	Coastal cutthroat trout		X X X X X X X X X X X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X X X X X X X X X X X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X X X X X X X X X X X	JAN-APR	FEB-MAY	MAR-JUL	JAN-DEC	SEP-JUN

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
139	Brown rock crab		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	California bay shrimp		X X X X X X X X X X X	-	-	APR-JUL	JAN-DEC	JAN-DEC
	Dungeness crab		X X X X X X X X X X X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Geoduck		X X X X X X X X X X X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Green crab		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Horseneck gaper		X X X X X X X X X X X	FEB-APR	-	-	JAN-DEC	JAN-DEC
	Lewis's moonsnail		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Pacific gaper		X X X X X X X X X X X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Red rock crab		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
144	Pacific razor clam	LOW	X X X X X X X X X X X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Pacific sand crab		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
146	California butterclam		X X X X X X X X X X X	MAR-NOV	-	-	-	JAN-DEC
	Cockles		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Ghost shrimp		X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Manila clam		X X X X X X X X X X X	MAY-JUL	-	JUN-AUG	JAN-DEC	JAN-DEC
	Pacific littleneck	HIGH	X X X X X X X X X X X	MAR-SEP	MAR-SEP	MAR-SEP	JAN-DEC	JAN-DEC
	Softshell clam		X X X X X X X X X X X	APR-OCT	APR-OCT	APR-OCT	JAN-DEC	JAN-DEC
	Washington butterclam		X X X X X X X X X X X	MAR-NOV	-	-	-	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
199	Dungeness crab		X X X X X X X X X X X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
204	California bay shrimp		X X X X X X X X X X X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Yellow shore crab		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
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
111	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	-	-	-	-
118	Harbor porpoise	HIGH	X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
140	California sea lion		X X X X X X X X X X X	-	-	-	-
	Harbor porpoise		X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
200	Harbor seal	98 INDIV.	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	Internesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW	X X X X X X X X	-	-	-	-	MAY-NOV
638	Northern red-legged frog		X X X X X X X X X X X	MAR-JUL	-	-	-	-

HUMAN USE RESOURCES:

AIRPORT:

HUN#	Name	Contact	Phone
56	ARCATA AIRPORT		

AQUACULTURE:

HUN#	Name	Contact	Phone
83	MAD RIVER SLOUGH MARICULTURE SITES	KUIPER MARICULTURE	707/822-9057

BEACH:

HUN#	Name	Contact	Phone
97	CLAM BEACH COUNTY PARK	CDFG	

BOAT RAMP:

HUN#	Name	Contact	Phone
137	MAD RIVER BEACH COUNTY PARK	CDFG	

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
298	HUMBOLDT BAY NWR	USFWS	707/733-5406

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Northern California: ESIMAP 32

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
202	Western snowy plover	T 5-14 BIRDS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
203	Marbled murrelet	E T HIGH				X	X	X	X	X	X	X	X		-	-	-
206	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Dunlin		X	X	X	X	X				X	X	X		-	-	-
	Sanderling		X	X	X	X				X	X	X	X		-	-	-
	Shorebirds	HIGH	X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
	Whimbrel					X	X	X		X	X	X			-	-	-
207	Western snowy plover	T 7-52 BIRDS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
208	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Northern harrier		X	X	X	X	X			X	X	X	X		-	-	-
	White-tailed kite		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
211	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	Sea ducks	HIGH	X	X	X	X				X	X	X			-	-	-
212	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
220	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
221	Canada goose		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
224	Diving birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds	250,000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
236	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	21 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	1 INDIV.				X	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	-	-
237	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	20 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	24 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	X			MAY-AUG	-	-
	Western gull	20 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
238	Common murre	2,836 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Leach's storm-petrel	7 INDIV.				X	X	X	X	X	X	X			MAY-OCT	-	-
	Pelagic cormorant	22 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	10 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Western gull	12 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
239	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	36 NESTS				X	X	X	X	X	X	X			MAR-AUG	-	-
	Brown pelican	55 NESTS				X	X	X	X	X	X	X			-	-	-
	Cassin's auklet	84 INDIV.	X	X	X	X	X	X	X	X	X	X	X		FEB-OCT	-	-
	Common murre	24,026 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Fork-tailed storm-petrel	50 INDIV.	X	X	X	X	X	X	X	X	X	X	X		MAR-NOV	-	-
	Leach's storm-petrel	1 INDIV.				X	X	X	X	X	X	X			MAY-OCT	-	-
	Pelagic cormorant	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	25 INDIV.				X	X	X	X	X	X	X			MAY-AUG	-	-
	Rhinoceros auklet	12 INDIV.				X	X	X	X	X	X	X			APR-AUG	-	-
	Tufted puffin	29 INDIV.				X	X	X	X	X	X				MAY-SEP	-	-
	Western gull	28 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
240	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	8 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Tufted puffin	7 INDIV.				X	X	X	X	X	X				MAY-SEP	-	-
	Western gull	20 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
241	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
242	Black oystercatcher	6 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	777 NESTS				X	X	X	X	X	X	X			MAR-AUG	-	-
	Brown pelican	E E 66 INDIV.				X	X	X	X	X	X	X			-	-	-
	Common murre	30464 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	3 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Tufted puffin	2 INDIV.				X	X	X	X	X	X				MAY-SEP	-	-
	Western gull	114 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
243	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	65 NESTS				X	X	X	X	X	X	X			MAR-AUG	-	-
	Common murre	636 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pigeon guillemot	5 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	96 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
244	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	68 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	30 INDIV.				X	X	X	X	X					MAY-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
245	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	18 NESTS				X	X	X	X	X	X				MAR-AUG	-	-
	Brown pelican	E E 21 INDIV.				X	X	X	X	X	X				-	-	-
	Common murre	1336 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Double-crested cormorant	27 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	8 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	-	-
	Rhinoceros auklet	1 INDIV.				X	X	X	X	X	X				APR-AUG	-	-
	Western gull	60 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
246	Fork-tailed storm-petrel	1 INDIV.	X	X	X	X	X	X	X	X	X				MAR-NOV	-	-
	Leach's storm-petrel	106 INDIV.				X	X	X	X	X	X				MAY-OCT	-	-
	Pigeon guillemot	3 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
247	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	141 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Fork-tailed storm-petrel	200 INDIV.				X	X	X	X	X	X	X			MAR-NOV	-	-
	Leach's storm-petrel	4200 INDIV.				X	X	X	X	X	X				MAY-OCT	-	-
	Pelagic cormorant	12 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	23 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Rhinoceros auklet	1 INDIV.				X	X	X	X	X					APR-AUG	-	-
	Western gull	54 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
260	Black oystercatcher	9 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	209 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	27 INDIV.				X	X	X	X	X					MAY-AUG	-	-
	Western gull	22 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
261	Black oystercatcher	5 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	2 INDIV.				X	X	X	X	X	X				MAR-AUG	-	-
	Pelagic cormorant	206 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	9 INDIV.				X	X	X	X	X	X				MAY-AUG	-	-
	Western gull	22 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
262	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Fork-tailed storm-petrel	8 INDIV.				X	X	X	X	X	X	X			MAR-NOV	-	-
	Leach's storm-petrel	4173 INDIV.				X	X	X	X	X	X				MAY-OCT	-	-
	Pelagic cormorant	72 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	36 INDIV.				X	X	X	X	X					MAY-AUG	-	-
	Western gull	48 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-

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 32 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
272	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
462	Black scoter		X	X	X	X							X	X	-	-	-
	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		-	-	-
	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			-	-	-
620	Bank swallow	T		X	X	X	X	X	X	X	X	X	X		JUN-AUG	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X			FEB-AUG	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
65	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt					X	X	X	X	X					MAY-OCT	-	-	MAY-OCT	MAY-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	APR-FEB	JAN-DEC
															NOV-DEC				
187	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
	Bat ray			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						-	-	-	-	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
221	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	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				APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch			X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUN	MAR-AUG	JUN-MAR	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt					X	X	X	X	X	X				APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
525	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-FEB	NOV-MAY	DEC-JUL	JAN-DEC	OCT-FEB
	Coho salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
558	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
592	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
602	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-FEB	NOV-MAY	DEC-JUL	JAN-DEC	OCT-FEB
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
604	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
605	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-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 impacts to protected species.

Northern California: ESIMAP 32 (cont.)

BIOLOGICAL RESOURCES: (cont.)

HABITAT:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
223	Pink sand verbena		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
144	Pacific razor clam	LOW	X X X X X X X X X X X X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Pacific sand crab		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
187	California market squid		X 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 X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X 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 X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
206	Pacific razor clam	HIGH	X X X X X X X X X X X X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
210	Mussels		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Red abalone	LOW	X X X X X X X X X X X X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
213	Red abalone		X X X X X X X X X X X X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
221	Dungeness crab		X X X X X X X X X X X X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Yellow shore crab		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
13	Gray whale		X X X X X X X X X X X X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X X X X X X X X X X X X	-	-	-	-
118	Harbor porpoise	HIGH	X X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
209	Harbor seal	107-120 INDIV.	X X X X X X X X X X X X	-	-	-	-
214	California sea lion	31-1098 INDIV.	X X X X X X X X X X X X	-	-	-	-
	Harbor seal	20-25 INDIV.	X X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 17-24 INDIV.	X X X X X X X X X X X X	-	-	-	-
215	Harbor seal	38-68 INDIV.	X X X X X X X X X X X X	-	-	-	-
216	Harbor seal	44 INDIV.	X X X X X X X X X X X X	-	-	-	-
217	California sea lion	1-126 INDIV.	X X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 18-127 INDIV.	X X X X X X X X X X X X	-	-	-	-
218	California sea lion	1-111 INDIV.	X X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 5-148 INDIV.	X X X X X X X X X X X X	-	-	-	-
219	California sea lion	1-167 INDIV.	X X X X X X X X X X X X	-	-	-	-
	Harbor seal	233-246 INDIV.	X X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 1-29 INDIV.	X X X X X X X X X X X X	-	-	-	-
221	Harbor seal		X X X X X X X X X X X X	-	-	-	-
222	Harbor seal		X X X X X X X X X X X X	-	-	-	-
	Northern elephant seal		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	Internesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW	X X X X X X X X X X	-	-	-	-	MAY-NOV
638	Northern red-legged frog		X X X X X X X X X X X X	MAR-JUL	-	-	-	-

TERRESTRIAL MAMMAL:

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

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
105	LITTLE RIVER STATE BEACH	CSP	707/488-2041
106	LUFFENHOLTZ BEACH COUNTY PARK	CDFG	
126	TRINIDAD STATE BEACH	CSP	707/677-3570

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
192	LUFFENHOLTZ CREEK FA	CDFG	

MARINA:

HUN#	Name	Contact	Phone
232	TRINIDAD HARBOR	CDFG	

PARK:

HUN#	Name	Contact	Phone
250	LITTLE RIVER SB	CDPR	707/488-2041
268	TRINIDAD SB	CDPR	707/677-3570

WATER INTAKE:

HUN#	Name	Contact	Phone
296	TRINIDAD MARINE LAB	CDFG	

Northern 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
114	Shorebirds		X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
203	Marbled murrelet	E T HIGH			X	X	X	X	X	X	X	X			-	-	-
212	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
224	Diving birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds	250,000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X			-	-	-
234	Black oystercatcher	2	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	14	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	2	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
235	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	25 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	83 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
	Rhinoceros auklet	20 INDIV.			X	X	X	X	X	X					APR-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
271	Pelagic cormorant	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	4 INDIV.			X	X	X	X	X	X					MAY-AUG	-	-
274	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
275	American coot		X	X	X	X				X	X	X	X		-	-	-
	Cinnamon teal		X	X	X					X	X	X	X		-	-	-
	Green-winged teal		X	X	X	X				X	X	X	X		-	-	-
	Northern shoveler		X	X	X	X				X	X	X	X		-	-	-
	Virginia rail		X	X	X	X				X	X	X	X		-	-	-
276	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X				X	X	X			-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black scoter		X	X	X	X				X	X				-	-	-
	Brown pelican	E E 200-300	X	X			X	X	X	X	X	X	X		-	-	-
	Bufflehead	50-100	X	X	X	X				X	X				-	-	-
	California gull								X	X	X	X	X		-	-	-
	Canvasback		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	X		-	-	-
	Eared grebe		X	X	X	X				X	X	X	X		-	-	-
	Gadwall		X	X	X	X	X			X	X	X	X		-	-	-
	Greater scaup	100S	X	X	X	X				X	X	X			-	-	-
	Heermann's gull						X	X	X	X	X	X			-	-	-
	Hooded merganser		X	X	X					X	X				-	-	-
	Horned grebe		X	X	X	X				X	X	X			-	-	-
	Lesser scaup		X	X	X					X	X	X			-	-	-
	Mallard		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Merlin		X	X	X	X	X	X		X	X	X	X		MAR-JUN	-	-
	Northern pintail		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Northern shoveler		X	X	X	X				X	X	X	X		-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pied-billed grebe		X	X	X	X				X	X	X	X		-	-	-
	Red-throated loon		X	X	X	X	X			X	X				-	-	-
	Redhead		X	X						X	X				-	-	-
	Ring-necked duck		X	X	X	X				X	X	X			-	-	-
	Ruddy duck		X	X	X	X				X	X	X			-	-	-
	Surf scoter	100S	X	X	X	X				X	X	X	X		-	-	-
	Western grebe		X	X	X	X	X			X	X	X	X		-	-	-
	Western gull		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White-winged scoter	100S	X	X	X	X				X	X	X			-	-	-
	Wood duck		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
277	Caspian tern	50			X	X	X	X	X	X	X	X			-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
278	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E 300-500			X	X	X	X	X	X	X	X	X		-	-	-
	Common murre	1000-3000								X	X	X			-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	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		-	-	-
279	Dunlin		X	X	X	X	X			X	X	X			-	-	-
	Killdeer		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Least sandpiper		X	X	X	X				X	X	X	X	X	-	-	-
	Shorebirds	HIGH	X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
280	American coot	HIGH	X	X	X	X	X			X	X	X	X		-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American wigeon		X	X	X	X				X	X	X			-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bufflehead	HIGH	X	X	X	X				X	X				-	-	-
	Canvasback		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	X		-	-	-
	Eared grebe		X	X	X	X				X	X	X	X		-	-	-
	Gadwall		X	X	X	X	X			X	X	X	X		-	-	-
	Golden eagle		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Greater scaup	HIGH	X	X	X	X				X	X	X			-	-	-
	Hooded merganser		X	X	X					X	X				-	-	-
	Horned grebe		X	X	X	X				X	X	X			-	-	-
	Lesser scaup		X	X	X					X	X	X			-	-	-
	Mallard		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Merlin		X	X	X	X	X	X		X	X	X	X		MAR-JUN	-	-
	Northern pintail	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pied-billed grebe		X	X	X	X				X	X	X	X		-	-	-
	Red-throated loon		X	X	X	X	X			X	X				-	-	-
	Ring-necked duck		X	X	X	X				X	X	X			-	-	-
	Ruddy duck		X	X	X	X				X	X	X			-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surf scoter	HIGH	X	X	X	X				X	X	X	X		-	-	-
	Western grebe		X	X	X	X				X	X	X	X		-	-	-
	White-winged scoter	HIGH	X	X	X	X				X	X	X			-	-	-
	Wood duck		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
281	Western snowy plover	T 3-10 BIRDS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
285	Common murre	500												X	-	-	-
287	Brown pelican	E E				X	X	X	X	X	X	X	X		-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western snowy plover	T	X	X	X	X				X	X	X	X	X	-	-	-
288	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds	HIGH	X	X	X	X			X	X	X	X	X	X	-	MAR-APR JUL-OCT	-

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 33 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
289	Semipalmated plover	50-60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
462	Black scoter		X	X	X	X							X	X	-	-	-
	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	-	-	-
	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		-	-	-
	Surf scoter		X	X	X	X					X	X	X	X	-	-	-
	Western grebe		X	X	X	X					X	X	X	X	-	-	-
	White-winged scoter		X	X	X	X					X	X	X		-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X	X		FEB-AUG	-	-

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		SEP-NOV	-	JAN-MAY	JAN-DEC	JAN-DEC
	Black-and-yellow rockfish		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		NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Bocaccio		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		DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Brown smoothhound		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		OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	California halibut		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		-	-	-	JAN-DEC	JAN-DEC
	Canary rockfish (orange)		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		NOV-JUN	NOV-JUN	JAN-JUN	JAN-DEC	JAN-DEC
	China rockfish		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		-	-	-	JAN-DEC	JAN-DEC
	Coho salmon		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		FEB-APR	FEB-APR	FEB-APR	JAN-DEC	JAN-DEC
	English sole		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		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		-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt		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		DEC-MAR	-	-	JAN-DEC	JAN-DEC
	Leopard shark		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		NOV-APR	DEC-FEB	FEB-APR	JAN-DEC	JAN-DEC
	Longnose skate		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		JAN-APR	-	-	JAN-DEC	JAN-DEC
	Northern anchovy							X	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		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		MAR-JUL	-	-	JAN-DEC	JAN-DEC
	Rock greenling		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		JAN-JUL	-	-	JAN-DEC	JAN-DEC
	Sandpaper skate		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		JUN-SEP	-	-	JAN-DEC	JAN-DEC
	Speckled sanddab		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		JAN-DEC	-	-	JAN-DEC	JAN-DEC
	Starry flounder		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		-	-	-	JAN-DEC	JAN-DEC
	Striped surfperch		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		APR-JUL	APR-JUL	MAY-AUG	JAN-DEC	JAN-DEC
	Vermilion rockfish		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		JAN-JUL	JAN-JUL	JAN-JUL	JAN-DEC	JAN-DEC
276	American shad				X	X	X	X	X						-	-	-	JUN-SEP	MAY-JUL
	California halibut		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	-
	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JUN-APR
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	SEP-JAN
	English sole				X	X	X	X	X						-	-	-	APR-SEP	-
	Largemouth bass		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X		DEC-FEB	DEC-FEB	DEC-MAR	JAN-DEC	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X		-	-	MAY-JUN	JAN-DEC	-
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	OCT-JUN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X		JAN-DEC	-	-	-	JAN-DEC
280	American shad				X	X	X	X	X						-	-	-	JUN-SEP	MAY-JUL
	California halibut		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	-
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	SEP-JAN
	English sole				X	X	X	X	X						-	-	-	APR-SEP	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X		DEC-FEB	DEC-FEB	DEC-MAR	JAN-DEC	JAN-DEC
	Shiner surfperch				X	X	X	X	X	X	X	X	X		MAY-JUL	-	-	MAY-DEC	APR-OCT
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X		-	-	MAY-JUN	JAN-DEC	-
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	OCT-JUN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X		JAN-DEC	-	-	-	JAN-DEC
284	Night smelt		X	X	X	X	X	X	X						JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X		FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Surf smelt				X	X	X	X	X						JUN-SEP	-	-	MAY-OCT	MAY-OCT
286	Rockfish		X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	-
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X		DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
527	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X		OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X		OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X		DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
539	Steelhead	T	X	X	X	X	X			X	X	X			-	-	-	-	OCT-JUN
557	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X		DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X		OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X		DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
592	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X		DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
603	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X		OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X		DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X		OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X		DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
604	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X		DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X		DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
290	Beach pea		X	X	X	X	X	X	X	X	X	X	X	X
	Oregon Coast Indian paintbrush		X	X	X	X	X	X	X	X	X	X	X	X
	Pink sand verbena		X	X	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.

Northern California: ESIMAP 33 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
-----	-----	- - - - -	-	-	-	-	-	-	-	-	-	-	-	-	-----	-----	-----	-----	-----
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
213	Red abalone		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	JAN-DEC	JAN-DEC
274	California mussel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	JAN-DEC	JAN-DEC
	Pacific littleneck		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	JUN-AUG	JAN-DEC	JAN-DEC
	Sea urchins		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	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
-----	-----	- - - - -	-	-	-	-	-	-	-	-	-	-	-	-	-----	-----	-----	-----
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
118	Harbor porpoise	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
219	California sea lion	1-167 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	233-246 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Steller sea lion	T 1-29 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
282	California sea lion	4-976 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Steller sea lion	T 3-184 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
283	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Northern elephant seal	RARE	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
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111	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV
638	Northern red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-	-

TERRESTRIAL MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
-----	-----	- - - - -	-	-	-	-	-	-	-	-	-	-	-	-
92	Roosevelt elk		X	X	X	X	X	X	X	X	X	X	X	X
219	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X
276	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X
280	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X
288	Roosevelt elk		X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
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1	ACCESS		
33	PATRICK'S POINT STATE PARK	CSP	707/677-3570

BEACH:

HUN#	Name	Contact	Phone
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115	RECREATIONAL BEACH		

BOAT RAMP:

HUN#	Name	Contact	Phone
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130	BIG LAGOON COUNTY PARK	CDFG	

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
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168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
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171	ESSENTIAL FISH HABITAT HAPC - ROCKY REEF	PACIFIC STATES MARINE FISHERIES COMMISSION	

PARK:

HUN#	Name	Contact	Phone
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248	HARRY A. MERLO SRA	CDPR	707/488-2169
249	HUMBOLDT LAGOONS SP	CDPR	707/488-2169
257	PATRICKS POINT SP	CDPR	707/677-3570

Northern California: ESIMAP 34

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
114	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
203	Marbled murrelet	E T HIGH			X	X	X	X	X	X	X	X			-	-	-
224	Diving birds		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Seabirds	250,000	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Terns		X	X	X	X	X	X	X	X	X				-	-	-
278	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Brown pelican	E E 300-500			X	X	X	X	X	X	X				-	-	-
	Common murre	1000-3000						X	X	X					-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Osprey		X	X	X	X	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		-	-	-
280	American coot	HIGH	X	X	X	X				X	X	X	X		-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	American wigeon	HIGH	X	X	X	X				X	X	X			-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Bufflehead	HIGH	X	X	X	X					X	X			-	-	-
	Canvasback		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	X		-	-	-
	Eared grebe		X	X	X	X				X	X	X	X		-	-	-
	Gadwall		X	X	X	X	X			X	X	X	X		-	-	-
	Golden eagle		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Greater scaup	HIGH	X	X	X	X					X	X	X		-	-	-
	Hooded merganser		X	X	X						X	X			-	-	-
	Horned grebe		X	X	X	X					X	X	X		-	-	-
	Lesser scaup		X	X	X						X	X	X		-	-	-
	Mallard		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Merlin		X	X	X	X	X	X		X	X	X	X		MAR-JUN	-	-
	Northern pintail	HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Pied-billed grebe		X	X	X	X				X	X	X	X		-	-	-
	Red-throated loon		X	X	X	X	X				X	X			-	-	-
	Ring-necked duck		X	X	X	X					X	X	X		-	-	-
	Ruddy duck		X	X	X	X					X	X	X		-	-	-
	Seabirds		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Surf scoter	HIGH	X	X	X	X					X	X	X		-	-	-
	Western grebe		X	X	X	X	X				X	X	X		-	-	-
	White-winged scoter	HIGH	X	X	X	X					X	X	X		-	-	-
	Wood duck		X	X	X	X	X	X	X	X	X	X	X		-	-	-
291	American wigeon		X	X	X	X					X	X	X		-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Gadwall		X	X	X	X	X			X	X	X	X		-	-	-
	Mallard		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Northern pintail		X	X	X	X	X			X	X	X	X		-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Wood duck		X	X	X	X	X	X	X	X	X	X	X		-	-	-
292	Caspian tern			X	X	X	X	X	X	X	X				-	-	-
	Elegant tern				X	X	X	X	X	X	X				-	-	-
	Gulls	HIGH	X	X									X		-	-	-
	Heermann's gull					X	X	X	X	X	X				-	-	-
293	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X		-	-	-
295	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
296	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Brown pelican	E E			X	X	X	X	X	X	X	X			-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X		-	MAR-APR JUL-OCT	-
	Western snowy plover	T 1-5 BIRDS	X	X	X	X	X	X	X	X	X	X	X		MAR-SEP	-	-
298	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Brown pelican	E E			X	X	X	X	X	X	X				-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X		-	-	-
300	Western snowy plover	T 9 BIRDS	X	X	X	X		X	X	X	X	X			-	-	-
462	Black scoter		X	X	X	X					X	X			-	-	-
	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		-	-	-
	Common murre		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		-	-	-
	Eared grebe		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		-	-	-
	Red-throated loon		X	X	X	X	X				X	X			-	-	-
	Surf scoter		X	X	X	X					X	X	X		-	-	-
	Western grebe		X	X	X	X	X				X	X	X		-	-	-
	White-winged scoter		X	X	X	X					X	X	X		-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X			FEB-AUG	-	-

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		SEP-NOV	-	JAN-MAY	JAN-DEC	JAN-DEC
	Black-and-yellow rockfish		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		NOV-MAR	-	-	JAN-DEC	JAN-DEC
	Bocaccio		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		DEC-JUL	-	-	JAN-DEC	JAN-DEC
	Brown smoothhound		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		OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	California halibut		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		-	-	-	JAN-DEC	JAN-DEC
	Canary rockfish (orange)		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		NOV-JUN	NOV-JUN	JAN-JUN	JAN-DEC	JAN-DEC
	China rockfish		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		-	-	-	JAN-DEC	JAN-DEC
	Coho salmon		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		FEB-APR	FEB-APR	FEB-APR	JAN-DEC	JAN-DEC
	English sole		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		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		-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt		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		DEC-MAR	-	-	JAN-DEC	JAN-DEC

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 34 (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
187	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	X	X	-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	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	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
280	American shad						X	X	X	X					-	-	-	JUN-SEP	MAY-JUL
	California halibut		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-JAN
	English sole					X	X	X	X	X					-	-	-	APR-SEP	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	DEC-MAR	JAN-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-JUN	JAN-DEC	-
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-JUN
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
284	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Surf smelt					X	X	X	X	X	X				JUN-SEP	-	-	MAY-OCT	MAY-OCT
294	Cabezon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coastrange sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Green sturgeon	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacksmelt					X	X	X	X	X	X				APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Pacific herring		X	X	X	X	X	X	X	X			X		DEC-MAR	DEC-MAR	MAR-AUG	MAR-AUG	DEC-MAR
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	OCT-MAR	OCT-APR	OCT-APR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X			APR-NOV	-	-	APR-NOV	APR-NOV
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt					X	X	X	X	X	X				APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	APR-FEB	JAN-DEC
															NOV-DEC				
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
297	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch			X	X	X			X	X	X	X			FEB-APR	-	-	FEB-APR	FEB-APR
															AUG-NOV			AUG-NOV	AUG-NOV
	Surf smelt						X	X	X	X	X	X	X	X	MAY-OCT	-	-	MAY-OCT	MAY-OCT
495	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
529	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
556	Steelhead	T	X	X	X	X	X	X							-	-	-	-	NOV-JUL
560	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	NOV-JUL
592	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
606	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
607	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
608	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
609	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
610	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
611	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
290	Beach pea		X	X	X	X	X	X	X	X	X	X	X	X
	Oregon Coast Indian paintbrush		X	X	X	X	X	X	X	X	X	X	X	X
	Pink sand verbena		X	X	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.

Northern California: ESIMAP 34 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
294	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Yellow shore crab		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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
113	Harbor seal	28 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
118	Harbor porpoise	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
283	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Northern elephant seal	RARE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
296	Northern elephant seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
299	California sea lion	3 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	-	-	-	-
301	Harbor seal		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
111	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV
638	Northern red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-	-

TERRESTRIAL MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
92	Roosevelt elk		X	X	X	X	X	X	X	X	X	X	X	X
280	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
1	ACCESS		

BEACH:

HUN#	Name	Contact	Phone
116	REDWOOD NATIONAL PARK	NPS	707/465-7777

NATIONAL PARK:

HUN#	Name	Contact	Phone
239	REDWOOD NATIONAL PARK	NPS	707/465-7777

PARK:

HUN#	Name	Contact	Phone
249	HUMBOLDT LAGOONS SP	CDPR	707/488-2169
260	PRAIRIE CREEK REDWOODS SP	CDPR	707/445-6547

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 35

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
203	Marbled murrelet	E T HIGH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
224	Diving birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds	250,000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
270	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	23 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	13 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
296	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
	Western snowy plover	T 1-5 BIRDS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-
462	Black scoter		X	X	X	X								X X	-	-	-
	Brandt's cormorant		X	X	X	X	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 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							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	-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-

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		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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
	Cabezon		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	X	X	X	X	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	X	X	X	X	X	X	X	-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	X	X	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	X	X	X	X	X	X	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	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
297	Night smelt		X	X	X	X	X	X	X	X	X	X	X	X	JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X					X	X	X	X	X	FEB-APR AUG-NOV	-	-	FEB-APR AUG-NOV	FEB-APR AUG-NOV
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	MAY-OCT	-	-	MAY-OCT	MAY-OCT
512	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
556	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	NOV-JUL
559	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
592	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
604	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	DEC-JUN	DEC-JUL	JAN-DEC	OCT-JUN
606	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
609	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL
614	Chinook salmon	T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-FEB	NOV-APR	JAN-SEP	AUG-JAN
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Steelhead	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-APR	FEB-JUN	JAN-DEC	NOV-JUL

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
290	Beach pea		X	X	X	X	X	X	X	X	X	X	X	X
	Oregon Coast Indian paintbrush		X	X	X	X	X	X	X	X	X	X	X	X
	Pink sand verbena		X	X	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.

Northern California: ESIMAP 35 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
187	California market squid		X 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 X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X 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 X	SEP-APR	SEP-APR	SEP-APR	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
13	Gray whale		X X X X X X X X X X X X	-	DEC-FEB	-	-
107	Harbor seal	1 INDIV.	X X X X X X X X X X X X	-	-	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X X X X X X X X X X X X	-	-	-	-
118	Harbor porpoise	HIGH	X X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
296	Northern elephant seal		X X X X X X X X X X X X	-	-	-	-
302	Harbor porpoise	MODERATE	X X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
303	California sea lion		X X X X X X X X X X X X	-	-	-	-
	Harbor seal		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
111	Leatherback sea turtle	E VERY LOW	X X X X X X X X X X	-	-	-	-	MAY-NOV
638	Northern red-legged frog		X X X X X X X X X X X X	MAR-JUL	-	-	-	-

TERRESTRIAL MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
92	Roosevelt elk		X X X X X X X X X X X X

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
37	PRAIRIE CREEK STATE PARK	CSP	707/465-7347

NATIONAL PARK:

HUN#	Name	Contact	Phone
239	REDWOOD NATIONAL PARK	NPS	707/465-7777

PARK:

HUN#	Name	Contact	Phone
260	PRAIRIE CREEK REDWOODS SP	CDPR	707/445-6547

Northern California: ESIMAP 36

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
203	Marbled murrelet	E T HIGH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
224	Diving birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds	250,000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
231	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	311 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Brown pelican	E E 178 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-
	Common murre	27,497 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Double-crested cormorant	103 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	115 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	72 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Tufted puffin	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-
	Western gull	92 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
232	Double-crested cormorant	11 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	34 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	X	X	X	X	X	X	MAY-AUG	-	-
233	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	109 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Double-crested cormorant	33 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	18 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Rhinoceros auklet	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
258	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pigeon guillemot	61 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
259	Black oystercatcher	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	72 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	29 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	13 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
266	Black oystercatcher	5 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
268	Pigeon guillemot	16 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
269	Brandt's cormorant	59 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	29 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	26 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
304	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common loon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Eared grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Horned grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-throated loon	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surf scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White-winged scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
305	Shorebirds		X	X	X	X	X	X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
306	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	California gull		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Caspian tern		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Elegant tern		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Glaucous-winged gull		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Herring gull		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Ring-billed gull		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	-	-	-
311	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Harlequin duck		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X	X	X	X	X	X	X	X	X	-	MAR-APR JUL-OCT	-
	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
314	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
462	Black scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brandt's cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Clark's grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common loon		X	X	X	X	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	X	X	X	X	-	-	-
	Horned grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pacific loon		X	X	X	X	X	X	X	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	X	X	X	X	X	-	-	-
	Surf scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White-winged scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
621	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-

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	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	X	X	X	X	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

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 36 (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
187	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	X	X	-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	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	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
297	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X					X	X	X	X		FEB-APR	-	-	FEB-APR	FEB-APR
															AUG-NOV			AUG-NOV	AUG-NOV
										X	X	X	X	X	MAY-OCT	-	-	MAY-OCT	MAY-OCT
304	Surf smelt								X	X	X	X	X	X	-	-	-	JUN-SEP	MAY-JUL
	American shad							X	X	X	X	X			-	-	-	JAN-DEC	JAN-DEC
	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastrange sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	English sole							X	X	X	X	X	X		-	-	-	APR-SEP	-
	Eulachon		X	X	X	X	X							X	-	JAN-MAY	FEB-JUN	-	DEC-MAY
	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	APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Longfin smelt							X	X	X	X				-	-	-	JUN-SEP	JUN-SEP
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy							X	X	X	X	X	X		-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring							X	X	X	X				-	-	-	JUN-OCT	JUL-OCT
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	DEC-MAR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch							X	X	X	X	X	X	X	MAY-AUG	-	-	JUN-NOV	APR-OCT
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-JUN	JAN-DEC	-
	Surf smelt							X	X	X	X	X	X		-	-	-	MAY-OCT	MAY-OCT
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	JUN-AUG	JUN-AUG	JUL-SEP	JUL-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt							X	X	X	X	X	X		APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
	White sturgeon							X	X	X	X	X	X	X	-	-	-	MAR-OCT	MAR-OCT
499	Chinook salmon	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	SEP-FEB	SEP-MAY	OCT-JUL	JAN-DEC	APR-FEB
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T HIGH	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	JAN-JUN	FEB-AUG	JAN-DEC	JAN-DEC
592	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
615	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
616	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
304	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Yellow shore crab		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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
21	Harbor seal	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
304	Steller sea lion	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
306	Harbor seal	30-40 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
307	Harbor seal	4-10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
308	Harbor seal	58 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
309	California sea lion	1-337 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	11-90 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Steller sea lion	T 2-165 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-AUG	-
310	Harbor seal	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
311	Harbor seal	27 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
312	Harbor seal	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
313	Gray whale							X	X	X	X				-	-	-	-
	Minke whale		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
111	Leatherback sea turtle	E VERY LOW					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
304	Northern river otter		X	X	X	X	X	X	X	X	X	X	X	X

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Northern California: ESIMAP 36 (cont.)

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
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40	REDWOOD NATIONAL PARK	NPS	707/465-7777

BEACH:

HUN#	Name	Contact	Phone
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102	FALSE KLAMATH COVE, WILSON BEACH	CDFG	

ESSENTIAL HABITAT:

HUN#	Name	Contact	Phone
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169	ESSENTIAL FISH HABITAT HAPC - ESTUARIES	PACIFIC STATES MARINE FISHERIES COMMISSION	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
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189	KLAMATH TOWNSITE FA	CDFG	
214	WAUKELL CREEK WA	CDFG	707/464-2523

NATIONAL PARK:

HUN#	Name	Contact	Phone
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239	REDWOOD NATIONAL PARK	NPS	707/465-7777

PARK:

HUN#	Name	Contact	Phone
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244	DEL NORTE COAST REDWOODS SP	CDPR	707/445-6547

Northern California: ESIMAP 37

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
203	Marbled murrelet	E T HIGH	-	-	-	X	X	X	X	X	X	X	X	-	-	-	-
224	Diving birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds	250,000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
230	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	51 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Common murre	7 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	22 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	48 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	22 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
253	Black oystercatcher	17 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	20 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pelagic cormorant	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	33 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
254	Black oystercatcher	5 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	1 NEST	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	96 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	59 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	30 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
255	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	38 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	16 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
256	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	54 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Brown pelican	E E 34 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common murre	73 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Pelagic cormorant	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
257	Double-crested cormorant	2 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Pelagic cormorant	34 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	2 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
267	Black oystercatcher	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	10 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Western gull	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
316	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black turnstone		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black-bellied plover		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Least sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Semipalmated plover		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surfbird		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
317	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Clark's grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common loon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Eared grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Elegant tern		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Horned grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pacific loon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-throated loon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Rhinoceros auklet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surf scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White-winged scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
322	Marbled murrelet	E T HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
462	Black scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brandt's cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Clark's grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common loon		X	X	X	X	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	X	X	X	X	-	-	-
	Horned grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pacific loon		X	X	X	X	X	X	X	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	X	X	X	X	X	-	-	-
	Surf scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White-winged scoter		X	X	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	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	X	X	X	X	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	X	X	X	X	X	X	X	-	-	JUN-SEP	JUN-NOV	JUN-OCT
	Pacific herring		X	X	X	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

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 37 (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
187	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	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
317	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-AUG	FEB-JUN
	Coho salmon	T T	X	X	X	X	X	X	X						-	-	-	FEB-AUG	FEB-JUN
	Pacific herring		X	X	X	X	X	X	X				X		DEC-MAR	DEC-MAR	MAR-AUG	MAR-AUG	DEC-MAR
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	DEC-MAR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Shiner surfperch			X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JUN-NOV	APR-OCT
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Steelhead		X	X	X	X	X	X	X						-	-	-	FEB-AUG	FEB-JUN
	Walleye surfperch		X	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	X	MAY-AUG	-	-	JAN-DEC	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
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
315	Pacific razor clam		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
105	Harbor seal	13 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
318	Harbor seal	3-53 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
319	Harbor seal	49-120 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
320	Harbor seal	46-54 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
321	California sea lion	57 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	47-57 INDIV.	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	Internesting	Juveniles	Adults
111	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
92	Roosevelt elk		X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
63	ABALONE INTERNATIONAL	CDFG	
64	ABALONE INTERNATIONAL	CHRIS VAN HOOK	707/464-6913

BEACH:

HUN#	Name	Contact	Phone
91	BEACH FRONT PARK	CDFG	
122	SOUTH BEACH AND ENDERTS	CDFG	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
177	CRESCENT CITY MARSH WA	CDFG	707/464-2523

MARINA:

HUN#	Name	Contact	Phone
220	INNER BOAT BASIN	CDFG	
226	OUTER BOAT BASIN	CDFG	

NATIONAL PARK:

HUN#	Name	Contact	Phone
239	REDWOOD NATIONAL PARK	NPS	707/465-7777

PARK:

HUN#	Name	Contact	Phone
244	DEL NORTE COAST REDWOODS SP	CDPR	707/445-6547
255	MILL CREEK	CDPR	916/651-1193

Northern 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
203	Marbled murrelet	E T HIGH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
224	Diving birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Seabirds	250,000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
228	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	1561 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Brown pelican	E E 2000 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Cassin's auklet	4749 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	FEB-OCT	-	-
	Common murre	82,697 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
	Double-crested cormorant	136 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Fork-tailed storm-petrel	100 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-
	Leach's storm-petrel	926 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-OCT	-	-
	Pelagic cormorant	392 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	360 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Rhinoceros auklet	1005 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
	Tufted puffin	82 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-
	Western gull	1370 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
229	Black oystercatcher	12 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Double-crested cormorant	5 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Fork-tailed storm-petrel	60 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-
	Pelagic cormorant	68 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	39 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Rhinoceros auklet	1 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
	Western gull	34 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
265	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	20 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	64 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
316	Black oystercatcher		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black turnstone		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Black-bellied plover		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Least sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Semipalmated plover		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surfbird		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
317	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Clark's grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common loon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Eared grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Elegant tern		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Horned grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pacific loon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-throated loon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Rhinoceros auklet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surf scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White-winged scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
360	Black scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Harlequin duck		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surf scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
361	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
362	Aleutian cackling goose		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
363	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	American wigeon	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Bufflehead		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Canvasback		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Eared grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Gadwall		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Greater scaup		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Hooded merganser		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Horned grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Lesser scaup		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Mallard		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Merlin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Northern harrier		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Northern pintail		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Northern shoveler		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pied-billed grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Red-tailed hawk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Ring-necked duck		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Ruddy duck		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Surf scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Wood duck		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
364	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Gadwall		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Great blue heron		X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Mallard		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Northern harrier		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Pied-billed grebe		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Ring-necked duck		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Western grebe		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Wood duck		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
365	Western snowy plover	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
368	Aleutian cackling goose		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
369	Dunlin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Least sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Sanderling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Shorebirds		X	X	X	X	X	X	X	X	X	X	X	X	MAR-APR JUL-OCT	-	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
462	Black scoter		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brandt's cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Clark's grebe		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common loon		X	X	X	X	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	-	-	-

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 38 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
462	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		-	-	-
	Red-throated loon		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			-	-	-

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	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
317	Coastal cutthroat trout		X	X	X	X	X	X							-	-	-	FEB-AUG	FEB-JUN
	Coho salmon		X	X	X	X	X	X							-	-	-	FEB-AUG	FEB-JUN
	Pacific herring		X	X	X	X	X	X	X				X		DEC-MAR	DEC-MAR	MAR-AUG	MAR-AUG	DEC-MAR
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	DEC-MAR	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Shiner surfperch				X	X	X	X	X	X	X				MAY-AUG	-	-	JUN-NOV	APR-OCT
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Steelhead		X	X	X	X	X	X	X						-	-	-	FEB-AUG	FEB-JUN
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	APR-FEB	JAN-DEC
														NOV-DEC					
	White seaperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	JAN-DEC	JAN-DEC
363	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Chinook salmon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-AUG	AUG-JUN
	English sole		X	X	X	X	X	X							-	-	-	APR-SEP	-
	Green sturgeon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt						X	X	X	X					-	-	-	JUN-SEP	JUN-SEP
	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Pacific herring					X	X	X	X	X					-	-	-	JUN-OCT	JUL-OCT
	Pacific lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	DEC-MAR	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch				X	X	X	X	X	X	X				MAY-AUG	-	-	JUN-NOV	APR-OCT
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-JUN	JAN-DEC	-
	Steelhead		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-AUG	AUG-JUN
	Surf smelt				X	X	X	X	X	X					-	-	-	MAY-OCT	MAY-OCT
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	JUN-AUG	JUN-AUG	JUL-SEP	JUL-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
	Topsmelt		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
375	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X					X	X	X	X		FEB-APR	-	-	FEB-APR	FEB-APR
														AUG-NOV				AUG-NOV	AUG-NOV
	Surf smelt					X	X	X	X	X	X				JUN-SEP	-	-	MAY-OCT	MAY-OCT
592	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
617	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
371	Beach pea		X	X	X	X	X	X	X	X	X	X	X	X
	Dark-eyed gilia		X	X	X	X	X	X	X	X	X	X	X	X
	Langsdorf's violet		X	X	X	X	X	X	X	X	X	X	X	X
	Marsh pea		X	X	X	X	X	X	X	X	X	X	X	X
	Marsh violet		X	X	X	X	X	X	X	X	X	X	X	X
	Oregon Coast Indian paintbrush		X	X	X	X	X	X	X	X	X	X	X	X
	Pacific gilia		X	X	X	X	X	X	X	X	X	X	X	X
	Sanddune phacelia		X	X	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.

Northern California: ESIMAP 38 (cont.)

BIOLOGICAL RESOURCES: (cont.)

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
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
630	Oregon silverspot butterfly	T	X X X X X X X X X X X	-	-	-	-	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
13	Gray whale		X X X X X X X X X X X	-	DEC-FEB	-	-
111	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	-	-	-	-
302	Harbor porpoise	MODERATE	X X X X X X X X X X X	JUL-SEP	JUN-AUG	-	-
362	Northern elephant seal		X X X X X X X X X X X	-	-	MAY-JUL	-
366	California sea lion	1-2124 INDIV.	X X X X X X X X X X X	-	-	-	-
	Harbor seal	538-683 INDIV.	X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 4-908 INDIV.	X X X X X X X X X X X	-	-	MAY-AUG	-
367	California sea lion	1-572 INDIV.	X X X X X X X X X X X	-	-	-	-
	Steller sea lion	T 398-825 INDIV.	X X X X X X X X X X X	-	-	MAY-AUG	-
369	California sea lion		X X X X X X X X X X X	-	-	-	-
	Harbor seal		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	Internesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW	X X X X X X X	-	-	-	-	MAY-NOV

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HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
17	ELK CREEK MARSH	CDFG	
38	PT ST. GEORGE TO CRESC. CITY HBR. DIST.	CDFG	

AIRPORT:

HUN#	Name	Contact	Phone
58	JACK MCNAMARA FIELD AIRPORT		

CRITICAL HABITAT:

HUN#	Name	Contact	Phone
168	WESTERN SNOWY PLOVER CRITICAL HABITAT	USFWS	707/822-7201

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
177	CRESCENT CITY MARSH WA	CDFG	707/464-2523
180	ELK CREEK WETLANDS WA	CDFG	707/464-2523
191	LAKE EARL WA	CDFG	707/464-2523
198	NORTH BEACH FA	CDFG	
200	PEBBLE BEACH FA	CDFG	

PARK:

HUN#	Name	Contact	Phone
266	TOLOWA DUNES SP	CDPR	707/465-2145

WATER INTAKE:

HUN#	Name	Contact	Phone
297	UNDER SEA WORLD	CDFG	

Northern California: ESIMAP 39

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
203	Marbled murrelet	E T HIGH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
225	Black oystercatcher	3 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Pelagic cormorant	31 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	12 INDIV.	-	-	-	-	-	X	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	-	-
226	Black oystercatcher	4 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	211 NESTS	-	-	-	-	-	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pelagic cormorant	56 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	138 INDIV.	-	-	-	-	-	X	X	X	X	X	X	X	MAY-AUG	-	-
	Western gull	28 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
227	Black oystercatcher	8 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
	Brandt's cormorant	215 NESTS	-	-	-	-	-	X	X	X	X	X	X	X	MAR-AUG	-	-
	Double-crested cormorant	323 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	Leach's storm-petrel	1 INDIV.	-	-	-	-	-	X	X	X	X	X	X	X	MAY-OCT	-	-
	Pelagic cormorant	346 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-
	Pigeon guillemot	221 INDIV.	-	-	-	-	-	X	X	X	X	X	X	X	MAY-AUG	-	-
	Rhinoceros auklet	1 INDIV.	-	-	-	-	-	X	X	X	X	X	X	X	APR-AUG	-	-
	Tufted puffin	27 INDIV.	-	-	-	-	-	X	X	X	X	X	X	X	MAY-SEP	-	-
	Western gull	616 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-
361	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown pelican	E E	-	-	-	-	-	X	X	X	X	X	X	X	-	-	-
	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
365	Western snowy plover	T	X	X	X	X			X	X	X	X	X	X	-	-	-
369	Dunlin		X	X	X	X				X	X	X			-	-	-
	Least sandpiper		X	X	X	X			X	X	X	X	X		-	-	-
	Sanderling		X	X	X	X			X	X	X	X	X		-	-	-
	Shorebirds			X	X			X	X	X	X				-	MAR-APR JUL-OCT	-
	Western sandpiper		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
372	American peregrine falcon	E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common loon			X	X										-	-	-
	Marbled murrelet	E T		X	X	X	X	X	X	X	X				-	-	-
	Osprey		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pacific loon			X	X										-	-	-
	Red-throated loon	COMMON		X	X										-	-	-
	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Western grebe		X	X	X	X			X	X	X	X			-	-	-
373	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
374	Brown pelican	E E		X	X	X	X	X	X	X	X				-	-	-
	California gull							X	X	X	X	X	X		-	-	-
	Caspian tern			X	X	X	X	X	X	X	X				-	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Elegant tern			X	X	X	X	X	X	X					-	-	-
	Glaucous-winged gull		X	X	X	X			X	X	X	X			-	-	-
	Herring gull		X	X	X	X			X	X	X				-	-	-
	Ring-billed gull		X	X	X	X			X	X	X	X			-	-	-
	Western gull		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
376	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Great egret		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
	Snowy egret		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-
378	Aleutian cackling goose	20000		X	X	X									-	-	-
	Dabbling ducks		X	X	X	X				X	X	X			-	-	-
	Waterfowl		X	X	X	X				X	X	X			-	-	-
462	Black scoter		X	X	X	X				X	X				-	-	-
	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			-	-	-
	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					-	-	-
	Surf scoter		X	X	X	X			X	X	X	X			-	-	-
	Western grebe		X	X	X	X			X	X	X	X			-	-	-
	White-winged scoter		X	X	X	X			X	X	X				-	-	-
620	Bank swallow	T		X	X	X	X	X	X	X	X	X	X	X	JUN-AUG	-	-
626	Bald eagle	E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
156	Tidewater goby	E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	JAN-DEC
187	Bat ray			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									-	-	-	-	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

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 39 (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
187	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
375	Night smelt		X	X	X	X	X	X	X	X					JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Redtail surfperch		X	X	X					X	X	X	X		FEB-APR	-	-	FEB-APR	FEB-APR
															AUG-NOV			AUG-NOV	AUG-NOV
	Surf smelt							X	X	X	X	X	X		JUN-SEP	-	-	MAY-OCT	MAY-OCT
379	American shad					X	X	X	X	X	X	X	X		-	-	-	JUL-NOV	APR-JUL
	Bay pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Black rockfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-MAY	JAN-DEC	JAN-DEC
	Cabazon		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	California roach		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Chum salmon					X	X						X	X	-	-	-	MAR-APR	NOV-DEC
	Coastrange sculpin		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	-	-	-	JAN-DEC	-
	English sole		X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-JUN	JAN-DEC	-
	Eulachon		X	X	X	X	X						X		-	JAN-MAY	FEB-JUN	-	DEC-MAY
	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				APR-JUN	APR-JUN	APR-AUG	APR-OCT	APR-OCT
	Kelp greenling		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Night smelt		X	X	X	X	X	X	X	X	X				JAN-SEP	-	-	JAN-SEP	JAN-SEP
	Northern anchovy							X	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 lamprey		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JAN	JAN-DEC	JAN-DEC	JAN-DEC
	Pacific sardine		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pacific staghorn sculpin		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	DEC-FEB	SEP-MAR	JAN-DEC	JAN-DEC
	Pacific tomcod		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Penpoint gunnel		X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	-	-	JAN-DEC	JAN-DEC
	Pile surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Prickly sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Redtail surfperch		X	X	X	X	X	X	X	X	X	X	X	X	FEB-NOV	-	-	JAN-DEC	FEB-NOV
	Saddleback gunnel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Shiner surfperch					X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	MAY-DEC	APR-OCT
	Silver surfperch		X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	JUN-AUG	JAN-DEC	JAN-DEC
	Silverspotted sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Speckled sanddab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Starry flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-AUG	JAN-DEC	JAN-DEC
	Striped surfperch		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Surf smelt		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-OCT	-	JAN-DEC	JAN-DEC
	Threespine stickleback		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	JUN-SEP	JUN-DEC	JAN-DEC
	Tidepool sculpin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topsmelt					X	X	X	X	X	X	X			APR-JUN	APR-JUN	APR-JUL	MAR-OCT	MAR-OCT
	Walleye surfperch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	APR-FEB	JAN-DEC
															NOV-DEC				
530	Chinook salmon		X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	OCT-MAY	OCT-JUL	JAN-DEC	APR-JUN
																			OCT-FEB
	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN
	Steelhead		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	DEC-MAY	DEC-JUN	JAN-DEC	JUL-OCT
																			DEC-APR
592	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
618	Coastal cutthroat trout		X	X	X	X	X	X	X	X	X	X	X	X	DEC-APR	JAN-APR	-	JAN-DEC	SEP-FEB
	Coho salmon	T T	X	X	X	X	X	X	X	X	X	X	X	X	OCT-FEB	NOV-APR	FEB-JUN	JAN-DEC	SEP-JAN

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
371	Beach pea		X	X	X	X	X	X	X	X	X	X	X	X
	Dark-eyed gilia		X	X	X	X	X	X	X	X	X	X	X	X
	Langsdorf's violet		X	X	X	X	X	X	X	X	X	X	X	X
	Marsh pea		X	X	X	X	X	X	X	X	X	X	X	X
	Marsh violet		X	X	X	X	X	X	X	X	X	X	X	X
	Oregon Coast Indian paintbrush		X	X	X	X	X	X	X	X	X	X	X	X
	Pacific gilia		X	X	X	X	X	X	X	X	X	X	X	X
	Sanddune phacelia		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
187	California market squid		X	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	X	MAR-JUN	-	MAR-SEP	JUN-SEP	JAN-DEC
	Ocean pink shrimp		X	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	X	SEP-APR	SEP-APR	SEP-APR	JAN-DEC	JAN-DEC
379	California bay shrimp		X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	DEC-AUG	DEC-SEP	JAN-DEC	JAN-DEC
	Dungeness crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-JUN	JAN-DEC	JAN-DEC
	Yellow shore crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
630	Oregon silverspot butterfly	T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	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
13	Gray whale		X	X	X	X	X	X	X	X	X	X	X	X	-	DEC-FEB	-	-
111	Killer whale	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	-	-	-	-
	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	-	-	-	-
	Short-finned pilot whale	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
302	Harbor porpoise	MODERATE	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	JUN-AUG	-	-
369	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
377	California sea lion		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Harbor seal	52 INDIV.	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Steller sea lion	T	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	Internesting	Juveniles	Adults
111	Leatherback sea turtle	E VERY LOW						X	X	X	X	X	X		-	-	-	-	MAY-NOV
638	Northern red-legged frog		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-	-

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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 39 (cont.)

HUMAN USE RESOURCES:

ACCESS:

HUN#	Name	Contact	Phone
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31	MOUTH OF THE SMITH RIVER	CDFG	

BEACH:

HUN#	Name	Contact	Phone
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98	CLIFFORD KAMPH COUNTY MEMORIAL PARK	CDFG	
112	PELICAN BEACH STATE PARK	CDFG	

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
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206	SMITH RIVER FA	CDFG	

PARK:

HUN#	Name	Contact	Phone
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258	PELICAN SB	CDPR	707/465-2145
266	TOLOWA DUNES SP	CDPR	707/465-2145