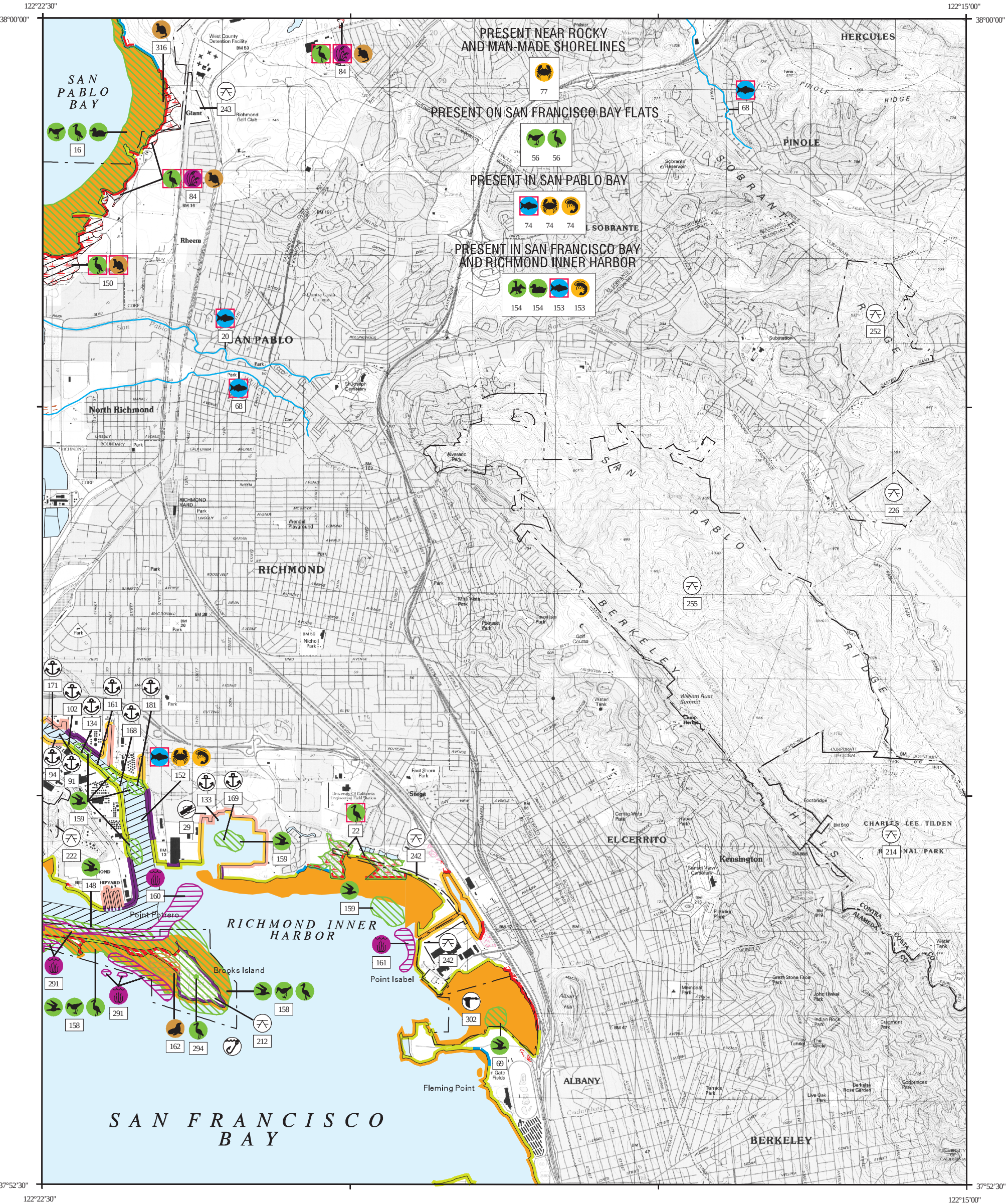


ENVIRONMENTAL SENSITIVITY INDEX MAP



SHORELINE HABITATS

- 1A EXPOSED ROCKY SHORES
- 1B EXPOSED, SOLID MAN-MADE STRUCTURES
- 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK
- 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
- 3B SCARPS AND STEEP SLOPES IN SAND
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED ROCKY SHORES
- 8B SHELTERED, SOLID MAN-MADE STRUCTURES
- 8C SHELTERED RIPRAP
- 9A SHELTERED TIDAL FLATS
- 9B VEGETATED LOW RIVERINE BANKS
- 10A SALT- AND BRACKISH-WATER MARSHES
- TIDAL MARSHES
- MUTED TIDAL MARSHES
- MANAGED MARSHES
- DIKED MARSHES
- SALT PONDS

SCALE 1:45000

1 KILOMETER

1 MILE

Not For Navigation
Published: December 1998

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division

1	2	3	4	5		
6	7	8	9	10	11	12
13	14	15				
16	17	18				
19	20	21				
	22	23	24			
		25	26	27		

SAN FRANCISCO BAY – ESIMAP 15

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
16	Dabbling ducks			HIGH	X	X	X	X					X	X	X	X	-	-	-	-
	Shorebirds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
22	California clapper rail	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
56	Shorebirds			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
69	Western gull			1	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
84	California black rail	S	T	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
	California clapper rail	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
148	Western gull			6	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
150	California black rail	S	T	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
	California clapper rail	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
154	Canvasback			MEDIUM	X	X	X	X					X	X	X	-	-	-	-	
	Diving ducks			HIGH	X	X	X	X					X	X	X	-	-	-	-	
	Western grebe			HIGH	X	X	X	X	X				X	X	X	-	-	-	-	
158	Black oystercatcher			1	X	X	X	X	X	X	X	X	X	X	X	X	MAY-OCT	MAY-JUL	JUN-AUG	JUL-OCT
	Caspian tern					X	X	X	X	X							APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
	Western gull			49	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
159	Western gull				X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
294	Black-crowned night-heron				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great blue heron				X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	-	-	-
	Great egret				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	-	-	-
	Snowy egret				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
20	Rainbow trout (steelhead)	F	T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-JUN	JUL-FEB
68	Rainbow trout (steelhead)	F	T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-JUN	JUL-FEB
74	American shad			HIGH					X	X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	California halibut			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	JAN-DEC
	Chinook salmon (fall)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Chinook salmon (late fall)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Chinook salmon (spring)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Chinook salmon (winter)	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-NOV
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
152	American shad			HIGH					X	X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	Bat ray			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Brown rockfish			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Chinook salmon (fall)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JUL-NOV
	Chinook salmon (late fall)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	OCT-MAR
	Chinook salmon (spring)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	FEB-AUG
	Chinook salmon (winter)	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	NOV-MAY
	Leopard shark			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JUN-AUG
	White croaker			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	SEP-MAR	SEP-MAR	SEP-MAR	JAN-DEC	JAN-DEC
153	American shad			HIGH					X	X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	Bat ray			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JUN-AUG	-	-	JAN-DEC	JAN-DEC
	California halibut			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAR	JAN-DEC	JAN-DEC
	Chinook salmon (fall)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Chinook salmon (late fall)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Chinook salmon (spring)			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Chinook salmon (winter)	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	English sole			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	JAN-DEC	-
	Leopard shark			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	JAN-DEC	JAN-DEC
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JUN-AUG

HABITAT/PLANT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
84	Ambiguous indian paintbrush			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
	Soft bird's-beak	F	E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
	Yellowray goldfields			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
160	Eelgrass				X	X	X	X	X	X	X	X	X	X	X	X
161	Eelgrass				X	X	X	X	X	X	X	X	X	X	X	X
291	Eelgrass				X	X	X	X	X	X	X	X	X	X	X	X

INVERTEBRATE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
74	Blacktail bay shrimp			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-SEP	MAR-OCT	JAN-NOV
	California bay shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-SEP	MAR-OCT	JAN-NOV
	Dungeness crab			HIGH				X	X	X	X	X	X	X	X	X	-	-	-	APR-DEC	-
77	Pacific rock crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Red rock crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
152	Blacktail bay shrimp			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	JAN-SEP	MAR-SEP	-	JAN-NOV
	California bay shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	JAN-SEP	MAR-SEP	-	JAN-NOV
	Dungeness crab			HIGH	X	X		X	X	X			X	X		X	-	-	-	APR-JUN	-
																			NOV-FEB		
153	Blacktail bay shrimp			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-SEP	MAR-OCT	JAN-NOV

MARINE MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
162	Harbor seal			12	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JUN-AUG

TERRESTRIAL MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
84	San Pablo vole			LOW	X	X	X	X	X	X	X	X	X	X	X	X
150	Salt-marsh harvest mouse	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X
	Saltmarsh wandering shrew			LOW	X	X	X	X	X	X	X	X	X	X	X	X
	San Pablo vole			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
316	Saltmarsh wandering shrew			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

BOAT RAMP:

HUN#	Name
29	BOAT RAMP

MARINA:

HUN#	Name
91	CAL COAST MARINE
94	CHANNEL MARINA
102	DECKERS RICHMOND YACHT HARBOR
133	MARINA BAY BOATHOUSE
134	MARINA BAY YACHT HARBOR
161	POINT SAN PABLO YACHT CLUB
168	RICHMOND BOAT WORKS
169	RICHMOND MARINA BAY
171	RICHMOND YACHT HARBOR LTD.
181	SANFORD WOOD BOATYARD

SAN FRANCISCO BAY – ESIMAP 15 (continued)

HUMAN USE RESOURCES (continued):

STATE/REGIONAL PARK:			
HUN#	Name	Owner	Phone
212	BROOKS ISLAND REGIONAL PRESERVE	EBRP	DISPATCH
214	CHARLES LEE TILDEN REGIONAL PARK	EBRP	DISPATCH
222	G.MILLER JR./JOHN T. KNOX REG. SHORELINE	EBRP	DISPATCH
226	KENNEDY GROVE REGIONAL RECREATION AREA	EBRP	DISPATCH
242	POINT ISABEL REGIONAL SHORELINE	EBRP	DISPATCH
243	POINT PINOLE REGIONAL SHORELINE	EBRP	DISPATCH
252	SOBRANTE RIDGE BOTANIC REGIONAL PRESERVE	EBRP	DISPATCH
255	WILDCAT CANYON REGIONAL PARK	EBRP	DISPATCH

WILDLIFE REFUGE/MGMT AREA:			
HUN#	Name	Owner	Phone
302	ALBANY MUDFLATS STATE ECOLOGICAL RESERVE	CDFG	REGIONAL OFFICE