

Spill Model		NOAA ESI Map #	Habitats Affected		NOAA Identified Species of Concern
No.	Scenario		50 – 80 % Probability of Spill Impact	> 80 % Probability of Spill Impact	
1	1,267 bbl, Winter, Fuel Oil #6	SF-10		Salt and Brackish water Marshes	California bay shrimp, California black rail, California clapper rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Diving ducks, Dungeness crab, Harbor seal, Mason's lilaeopsis, Ruddy duck, Sacramento splittail, Salt-marsh harvest mouse, Saltmarsh wandering shrew, Soft bird's-beak, Wading birds
				Sheltered Tidal Flats	California bay shrimp, California black rail, California clapper rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Diving ducks, Dungeness crab, Mason's lilaeopsis, Ruddy duck, Salt-marsh harvest mouse, Saltmarsh wandering shrew, Shorebirds, Wading birds
		SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Diving ducks, Double-crested cormorant, Mason's lilaeopsis, Northern river otter, Ruddy duck, Sacramento splittail, Salt-marsh harvest mouse, Soft bird's-beak, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (fall), Chinook salmon (late fall), Diving ducks, Mason's lilaeopsis, Wading birds

		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Salt-marsh harvest mouse, Wading birds, White-tailed kite
			Sheltered Tidal Flats		California bay shrimp, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Northern river otter, Wading birds
		SF-9		Salt and Brackish water Marshes	California black rail, California clapper rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Dungeness crab, Salt-marsh harvest mouse, Soft bird's-beak, Wading birds
				Sheltered Tidal Flats	California clapper rail, Chinook salmon (fall), Chinook salmon (late fall), Dabbling ducks, Delta tule pea, Diving ducks, Dungeness crab, Soft bird's-beak, Wading birds, Western gull
2	1,267 bbl, Summer, Fuel Oil #6	SF-10		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Ruddy duck, Salt-marsh harvest mouse, Soft bird's-beak, Wading birds
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Diving ducks, Mason's lilaeopsis, Wading birds
		SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Diving ducks, Double-crested cormorant, Mason's lilaeopsis, Northern river otter, Ruddy duck, Sacramento splittail, Salt-marsh harvest mouse, Soft bird's-beak, Western pond turtle

				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (fall), Chinook salmon (late fall), Diving ducks, Mason's lilaeopsis, Northern river otter, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (fall), Clark's grebe, Delta smelt, Mason's lilaeopsis, Northern river otter, Saltmarsh common yellowthroat, Salt-marsh harvest mouse, Wading birds, White-tailed kite
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Northern river otter, Wading birds
3	126.7 bbl, Winter, Fuel Oil #6	SF-10	Salt and Brackish water Marshes		California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Salt-marsh harvest mouse, Soft bird's-beak
			Sheltered Tidal Flats		California bay shrimp, Chinook salmon (late fall), Wading birds
		SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Sacramento splittail, Salt-marsh harvest mouse, Soft bird's-beak, Wading birds, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Mason's lilaeopsis, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis
		SF-9	Sheltered Tidal Flats		Chinook salmon (fall), Dabbling ducks, Dungeness crab, Wading birds

4	126.7 bbl, Summer, Fuel Oil #6	SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Sacramento splittail, Soft bird's-beak, Wading birds, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Mason's lilaeopsis, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Wading birds
			Sheltered Tidal Flats		California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Wading birds
5	50 bbl, Winter, Fuel Oil #6	SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Sacramento splittail, Soft bird's-beak, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Mason's lilaeopsis, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis
		SF-9	Sheltered Tidal Flats		Chinook salmon (fall), Dabbling ducks, Dungeness crab, Wading birds
6	50 bbl, Summer, Fuel Oil #6	SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Sacramento splittail, Soft bird's-beak, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Mason's lilaeopsis, Wading birds

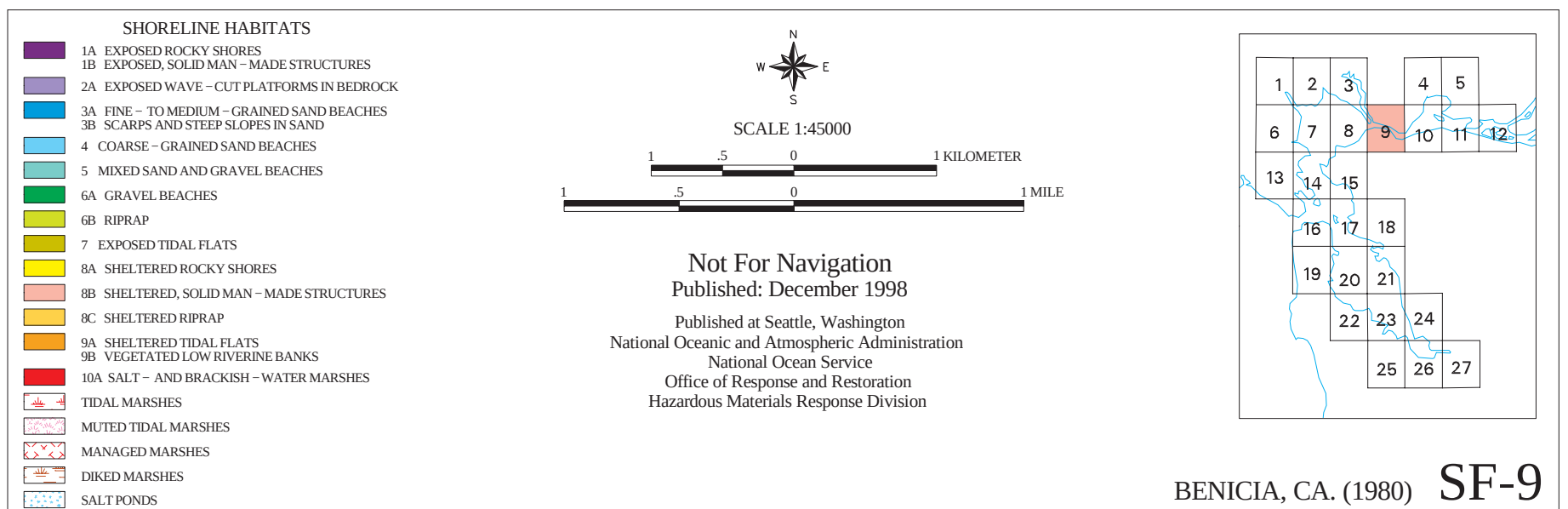
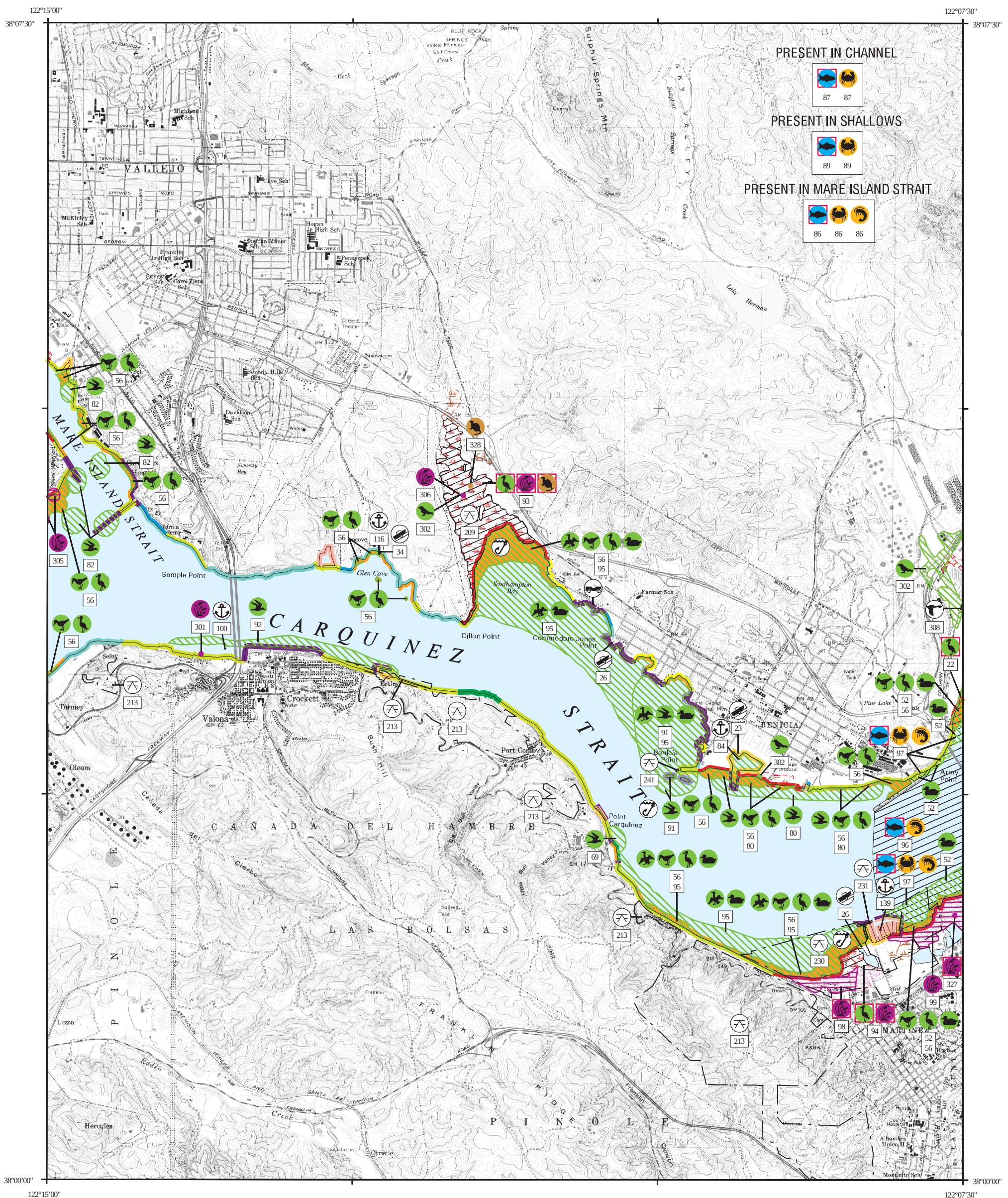
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis
7	1,267 bbl, Winter, ANS Crude	SF-10		Salt and Brackish water Marshes	California bay shrimp, California black rail, California clapper rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Diving ducks, Dungeness crab, Harbor seal, Mason's lilaeopsis, Ruddy duck, Sacramento splittail, Salt-marsh harvest mouse, Saltmarsh wandering shrew, Soft bird's-beak, Wading birds
				Sheltered Tidal Flats	California bay shrimp, California black rail, California clapper rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Diving ducks, Dungeness crab, Mason's lilaeopsis, Ruddy duck, Salt-marsh harvest mouse, Saltmarsh wandering shrew, Shorebirds, Wading birds
		SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Diving ducks, Double-crested cormorant, Mason's lilaeopsis, Northern river otter, Ruddy duck, Sacramento splittail, Salt-marsh harvest mouse, Soft bird's-beak, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (fall), Chinook salmon (late fall), Diving ducks, Mason's lilaeopsis, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Salt-marsh harvest mouse, Wading birds, White-tailed kite

			Sheltered Tidal Flats		California bay shrimp, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Northern river otter, Wading birds
		SF-9		Salt and Brackish water Marshes	California black rail, California clapper rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Dungeness crab, Salt-marsh harvest mouse, Soft bird's-beak, Wading birds
				Sheltered Tidal Flats	California clapper rail, Chinook salmon (fall), Chinook salmon (late fall), Dabbling ducks, Delta tule pea, Diving ducks, Dungeness crab, Soft bird's-beak, Wading birds, Western gull
8	1,267 bbl, Summer, ANS Crude	SF-10		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Ruddy duck, Salt-marsh harvest mouse, Soft bird's-beak, Wading birds
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Diving ducks, Mason's lilaeopsis, Wading birds
		SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Diving ducks, Double-crested cormorant, Mason's lilaeopsis, Northern river otter, Ruddy duck, Sacramento splittail, Salt-marsh harvest mouse, Soft bird's-beak, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (fall), Chinook salmon (late fall), Diving ducks, Mason's lilaeopsis, Northern river otter, Wading birds

		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (fall), Clark's grebe, Delta smelt, Delta tule pea, Mason's lilaeopsis, Northern river otter, Saltmarsh common yellowthroat, Salt-marsh harvest mouse, Wading birds, White-tailed kite
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (fall), Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Northern river otter, Wading birds
9	126.7 bbl, Winter, ANS Crude	SF-10	Salt and Brackish water Marshes		California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Salt-marsh harvest mouse, Soft bird's-beak
			Sheltered Tidal Flats		California bay shrimp, Chinook salmon (late fall), Wading birds
		SF-11	Salt and Brackish water Marshes		California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Sacramento splittail, Salt-marsh harvest mouse, Soft bird's-beak, Wading birds, Western pond turtle
			Sheltered Tidal Flats		California bay shrimp, Chinook salmon (late fall), Mason's lilaeopsis, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis
		SF-9	Sheltered Tidal Flats		Chinook salmon (fall), Dabbling ducks, Dungeness crab, Wading birds
10	126.7 bbl, Summer, ANS Crude	SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Sacramento splittail, Soft bird's-beak, Western pond turtle

				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Mason's lilaeopsis, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Wading birds
			Sheltered Tidal Flats		California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Wading birds
11	50 bbl, Winter, ANS Crude	SF-11	Salt and Brackish water Marshes		California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Sacramento splittail, Soft bird's-beak, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Mason's lilaeopsis, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis
		SF-9	Sheltered Tidal Flats		Chinook salmon (fall), Dabbling ducks, Dungeness crab, Wading birds
12	50 bbl, Summer, ANS Crude	SF-11		Salt and Brackish water Marshes	California bay shrimp, California black rail, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis, Sacramento splittail, Soft bird's-beak, Western pond turtle
				Sheltered Tidal Flats	California bay shrimp, Chinook salmon (late fall), Mason's lilaeopsis, Wading birds
		SF-12		Salt and Brackish water Marshes	California bay shrimp, Chinook salmon (late fall), Delta tule pea, Mason's lilaeopsis

ENVIRONMENTAL SENSITIVITY INDEX MAP



SAN FRANCISCO BAY – ESIMAP 9

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
22	California clapper rail	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
52	Canvasback			MEDIUM	X	X	X	X					X	X	X		-	-	-	
	Diving ducks			HIGH	X	X	X	X					X	X	X		-	-	-	
	Ruddy duck			LOW	X	X	X	X					X	X	X	X	-	-	-	
56	Shorebirds			LOW	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
80	Western gull			3	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
82	Western gull			10	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
91	Western gull			5	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
92	Western gull			2	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
93	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	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
94	California clapper rail	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
95	Canvasback			HIGH	X	X	X	X					X	X	X		-	-	-	
	Dabbling ducks			HIGH	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		-	-	-	
302	Suisun song sparrow			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	-	-	-

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
86	American shad			HIGH	-	-	-	X	X	X	X	X	X	X	X		-	-	-	AUG-DEC	MAY-JUL
	Chinook salmon			LOW	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Delta smelt	S/F	T/T	RARE	X	X	X	X	X	X			X	X	X		JAN-MAY	JAN-MAY	JAN-JUL	MAR-JUL	OCT-JUN
	Rainbow trout (steelhead)	F	T	LOW	X	X	X	X	X	X	X	X	X	X	X		-	-	-	FEB-JUN	JUL-FEB
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
87	American shad			HIGH				X	X	X	X	X	X	X	X		-	-	-	AUG-DEC	MAY-JUL
	Chinook salmon (fall)			HIGH	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		-	-	-	JAN-DEC	OCT-MAR
	Chinook salmon (spring)			HIGH	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		-	-	-	JAN-DEC	NOV-MAY
	Delta smelt	S/F	T/T	RARE	X	X		X	X	X	X	X	X	X	X		-	-	APR-JUN	APR-AUG	AUG-FEB
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JUN-AUG
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
89	American shad			HIGH				X	X	X	X	X	X	X	X		-	-	-	AUG-DEC	MAY-JUL
	Chinook salmon (fall)			HIGH	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		-	-	-	JAN-DEC	-
	Chinook salmon (spring)			HIGH	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		-	-	-	JAN-DEC	-
	Delta smelt	S/F	T/T	RARE	X	X		X	X	X	X	X	X	X	X		-	-	APR-JUN	APR-AUG	AUG-FEB
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White croaker			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	SEP-MAR	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
97	American shad			HIGH				X	X	X	X	X	X	X	X		-	-	-	AUG-DEC	MAY-JUL
	Chinook salmon (fall)			HIGH	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		-	-	-	JAN-DEC	OCT-MAR
	Chinook salmon (spring)			HIGH	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		-	-	-	JAN-DEC	NOV-MAY
	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X		-	-	APR-JUN	APR-AUG	JAN-DEC
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White croaker			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	SEP-MAR	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	JAN-DEC	JAN-DEC

HABITAT/PLANT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
93	Soft bird's-beak	F	E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
94	Soft bird's-beak	F	E	LOW	X	X	X	X	X	X	X	X	X	X	X	X
98	Soft bird's-beak	F	E	LOW	X	X	X	X	X	X	X	X	X	X	X	X
99	Delta tule pea			LOW	X	X	X	X	X	X	X	X	X	X	X	X
301	Delta tule pea			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
305	Mason's lilaeopsis			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
306	Suisun marsh aster			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
327	Soft bird's-beak	F	E	PRESENT	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
86	California bay shrimp			HIGH	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		-	-	-	APR-DEC	-
87	Dungeness crab			HIGH	X	X		X	X	X				X	X		-	-	-	APR-JUN	-
																				NOV-FEB	
89	Dungeness crab			HIGH				X	X	X	X	X	X	X	X		-	-	-	APR-DEC	-
96	California bay shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X		JAN-MAR	JAN-SEP	MAR-SEP	-	JAN-NOV
97	California bay shrimp			HIGH	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		-	-	-	APR-DEC	-

TERRESTRIAL MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
93	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
328	Suisun ornate shrew			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

BOAT RAMP:

HUN#	Name
23	BENICIA MARINA BOAT RAMP
26	BOAT RAMP
34	GLEN COVE WATERFRONT PARK AND MARINA

MARINA:

HUN#	Name
84	BENECIA MARINA
100	CROCKETT MARINE SERVICE
116	GLEN COVE MARINA
139	MARTINEZ MARINA

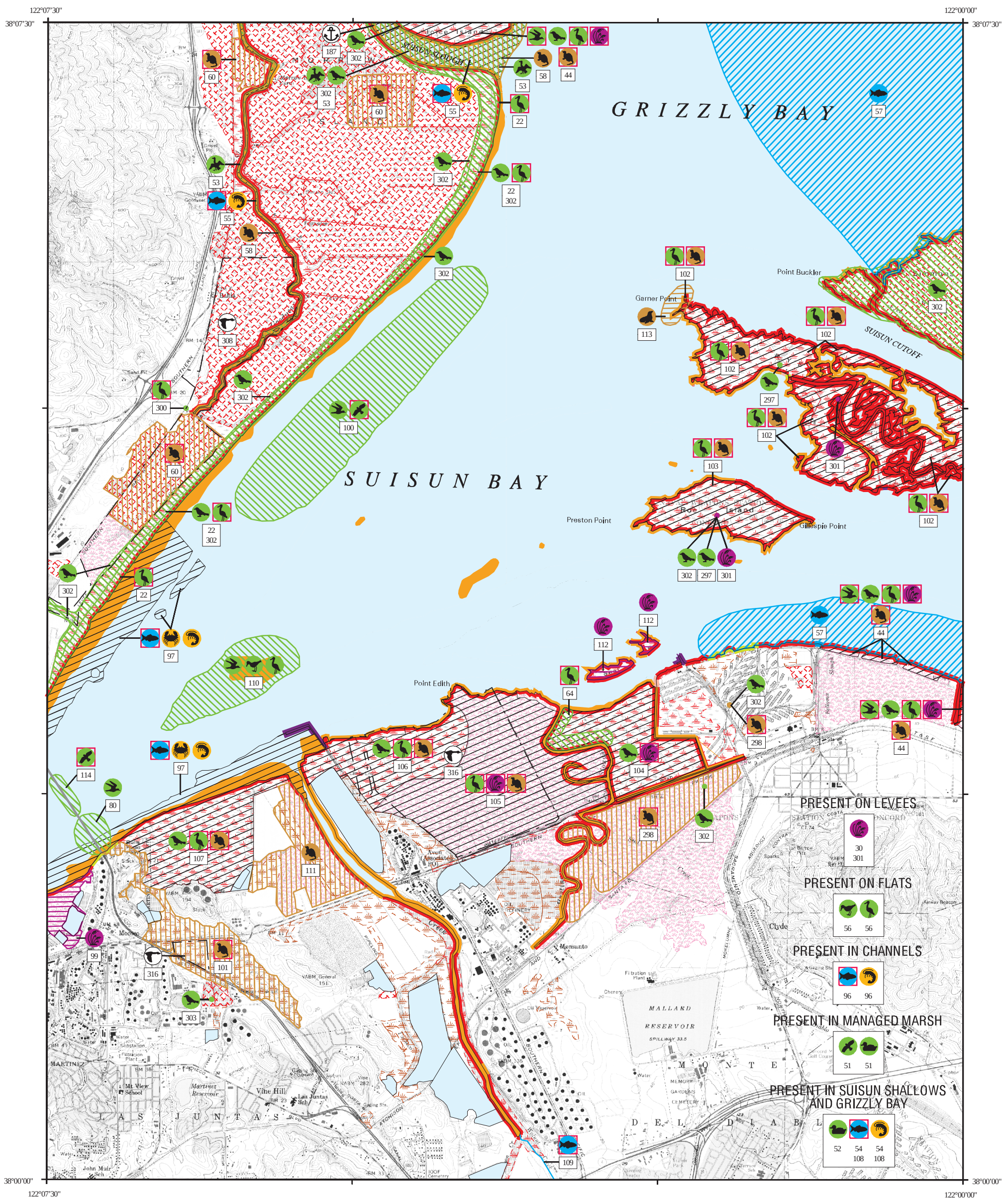
STATE/REGIONAL PARK:

HUN#	Name	Owner	Contact	Phone
209	BENICIA STATE RECREATION AREA	CDPR	DISPATCH	916-988-7322
213	CARQUINEZ STRAIT REGIONAL SHORELINE	EBRP	DISPATCH	510-881-1833
230	MARTINEZ REGIONAL SHORELINE	EBRP	DISPATCH	510-881-1833
231	MARTINEZ STATE FISHING PIER			
241	POINT BENICIA STATE FISHING PIER			

WILDLIFE REFUGE/MGMT AREA:

HUN#	Name	Owner	Contact	Phone
308	GRIZZLY ISLAND STATE WILDLIFE AREA	CDFG	MANAGER	707-425-3828

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

.5 0 1 KILOMETER

1 .5 0 1 MILE

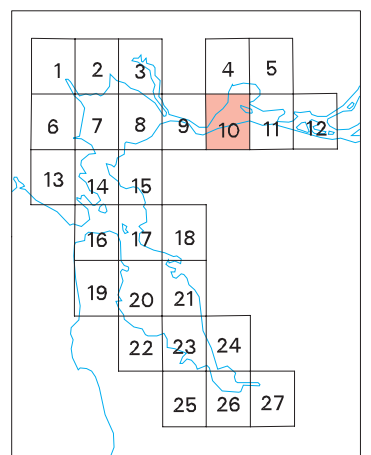
1/2 mile

1/4 mile

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National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division



SAN FRANCISCO BAY – ESIMAP 10

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
22	California clapper rail	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
44	California black rail	S	T	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
	California least tern	S/F	E/E	LOW				X	X	X	X	X					MAY-AUG	MAY-JUN	JUN-JUL	JUN-AUG
	Suisun song sparrow			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	-	-	-
51	Canada goose			2000	X	X	X	X					X	X	X	X	-	-	-	-
	Canvasback			MEDIUM	X	X	X	X					X	X	X		-	-	-	-
	Dabbling ducks			HIGH	X	X	X	X					X	X	X	X	-	-	-	-
	Greater white-fronted goose			1000	X	X	X	X					X	X	X	X	-	-	-	-
	Northern pintail			HIGH	X	X	X					X	X	X	X		-	-	-	-
	Ruddy duck			MEDIUM	X	X	X	X					X	X	X	X	-	-	-	-
	Short-eared owl			PRESENT			X	X	X	X	X	X	X	X	X		MAR-JUL	-	-	-
	Snow goose			200	X	X	X	X					X	X	X	X	-	-	-	-
	Tundra (whistling) swan			200	X	X	X						X	X	X		-	-	-	-
52	Canvasback			MEDIUM	X	X	X	X					X	X	X		-	-	-	-
	Diving ducks			HIGH	X	X	X	X					X	X	X		-	-	-	-
	Ruddy duck			LOW	X	X	X	X					X	X	X		-	-	-	-
53	Clark's grebe			HIGH	X	X	X	X					X	X	X		-	-	-	-
	Western grebe			HIGH	X	X	X	X	X				X	X	X		-	-	-	-
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	-	-	-	-
64	California black rail	S	T	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
80	Western gull			3	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
100	Peregrine falcon	S/F	E/E	LOW	X	X										X	-	-	-	-
	Western gull				X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-JUN	MAY-JUL	JUL-AUG
102	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	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
103	California black rail	S	T	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
104	Suisun song sparrow			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	-	-	-
105	California clapper rail	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
106	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	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Saltmarsh common yellowthroat			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
	Suisun song sparrow			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	-	-	-
107	California black rail	S	T	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
	Saltmarsh common yellowthroat			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
110	Gulls			HIGH	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	-	-	-	-
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
114	Peregrine falcon	S/F	E/E			X	X	X	X	X	X						-	-	-	-
297	Saltmarsh common yellowthroat			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
300	California black rail	S	T	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
302	Suisun song sparrow			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	-	-	-
303	Tricolored blackbird			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

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
54	American shad			HIGH	-	-	-		X	X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	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	-
	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	APR-AUG	JAN-DEC
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Starry flounder			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-DEC	JAN-DEC	JAN-DEC
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
55	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X					JAN-JUN	JAN-JUN	JAN-JUL	APR-SEP	JAN-JUL
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-MAY	APR-JUN	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
57	Sacramento splittail			HIGH						X	X	X	X	X	X	X	-	-	-	JUN-NOV	JUN-NOV
96	American shad			HIGH					X	X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	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
	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	APR-AUG	JAN-DEC
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White croaker			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-MAR	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
97	American shad			HIGH					X	X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	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
	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	APR-AUG	JAN-DEC
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White croaker			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-MAR	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
108	American shad			HIGH					X	X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	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
	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	APR-AUG	JAN-DEC
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White croaker			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-MAR	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
109	Chinook salmon			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rainbow trout (steelhead)	F	T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	FEB-JUN	JUL-FEB

HABITAT/PLANT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
30	Mason's lilaeopsis			POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X
44	Soft bird's-beak	F	E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
99	Delta tule pea			LOW	X	X	X	X	X	X	X	X	X	X	X	X
104	Soft bird's-beak	F	E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
105	Soft bird's-beak	F	E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
112	Delta tule pea			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X
301	Delta tule pea			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X

INVERTEBRATE:

RAR#	Species	S/F	T/E	Concen	J
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SAN FRANCISCO BAY – ESIMAP 10 (continued)

BIOLOGICAL RESOURCES (continued):

TERRESTRIAL MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
44	Salt-marsh harvest mouse	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X
58	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
60	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
101	Salt-marsh harvest mouse	S/F	E/E	PRESENT	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
102	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
103	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
105	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
106	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
107	Salt-marsh harvest mouse	S/F	E/E	PRESENT	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
111	Saltmarsh wandering shrew			LOW	X	X	X	X	X	X	X	X	X	X	X	X
298	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

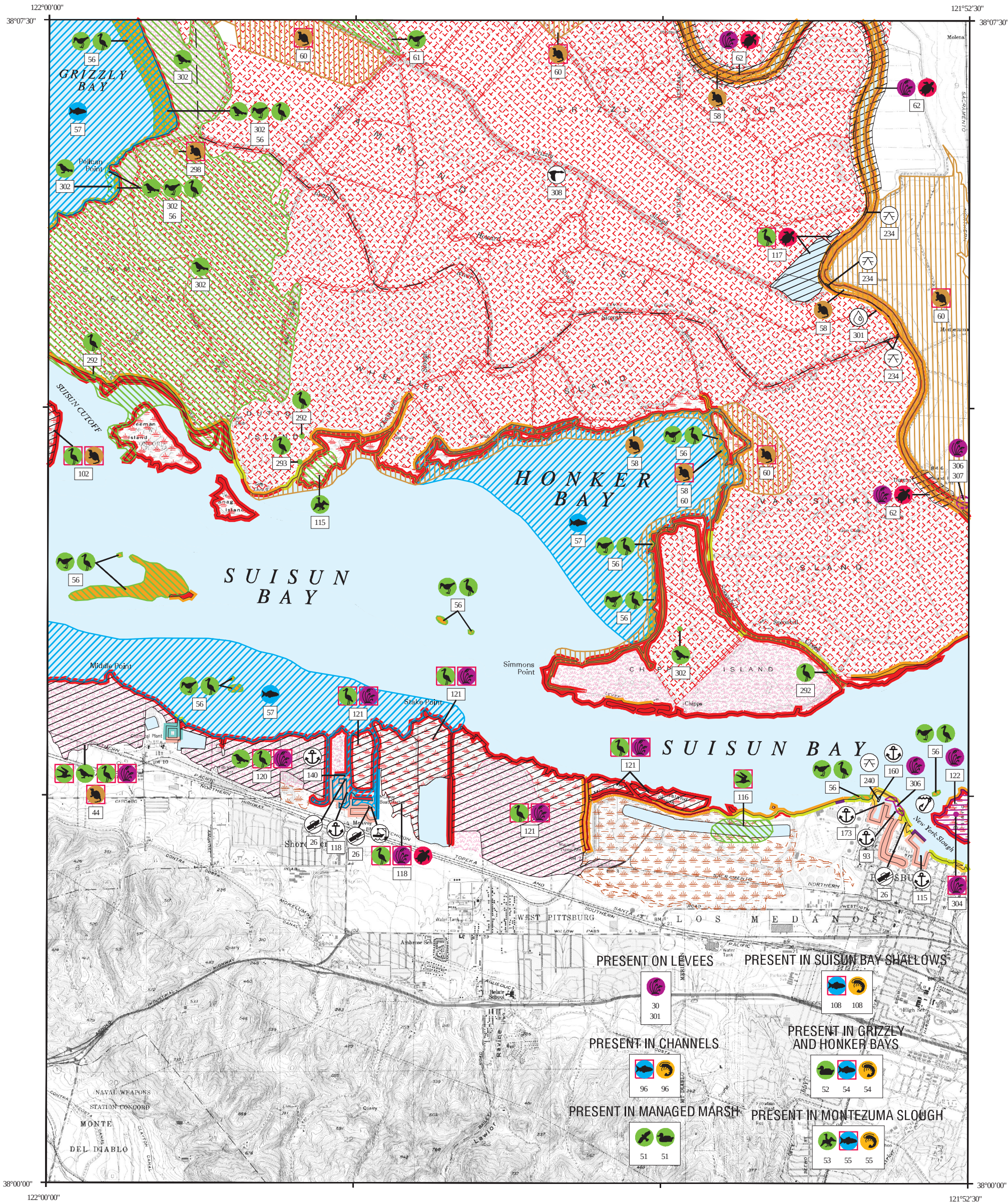
MARINA:

HUN#	Name
187	SOLANO YACHT CLUB

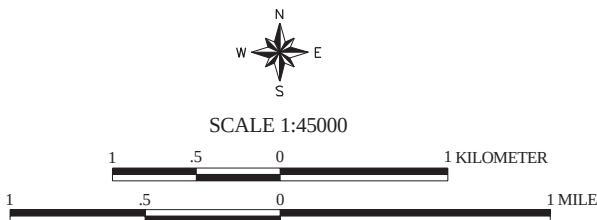
WILDLIFE REFUGE/MGMT AREA:

HUN#	Name	Owner	Contact	Phone
308	GRIZZLY ISLAND STATE WILDLIFE AREA	CDFG	MANAGER	707-425-3828
316	POINT EDITH STATE WILDLIFE AREA	CDFG	REGIONAL OFFICE	707-944-5500

ENVIRONMENTAL SENSITIVITY INDEX MAP

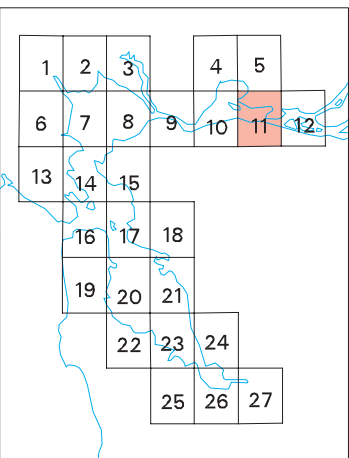


- SHORELINE HABITATS
- 1A EXPOSED ROCKY SHORES
 - 1B EXPOSED, SOLID MAN-MADE STRUCTURES
 - 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK
 - 3A FINE-TO-MEDIUM-GRAINED SAND BEACHES
 - 3B SCARPS AND STEEP SLOPES IN SAND
 - 4 COARSE-GRAINED SAND BEACHES
 - 5 MIXED SAND AND GRAVEL BEACHES
 - 6A GRAVEL BEACHES
 - 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



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Hazardous Materials Response Division



SAN FRANCISCO BAY – ESIMAP 11 (continued)

HUMAN USE RESOURCES:

BOAT RAMP:

HUN#	Name
26	BOAT RAMP

MARINA:

HUN#	Name
93	CENTRAL HARBOR MARINA
115	GEORGE LOWY MARINA
118	HARRIS YACHT HARBOR
140	MCAVOY YACHT HARBOR
160	PITTSBURG MARINA
173	RIVERVIEW HARBOR MARINA

STATE/REGIONAL PARK:

HUN#	Name	Owner	Contact	Phone
234	MONTEZUMA SLOUGH STATE PUBLIC ACCESS			
240	PITTSBURG STATE FISHING PIER			

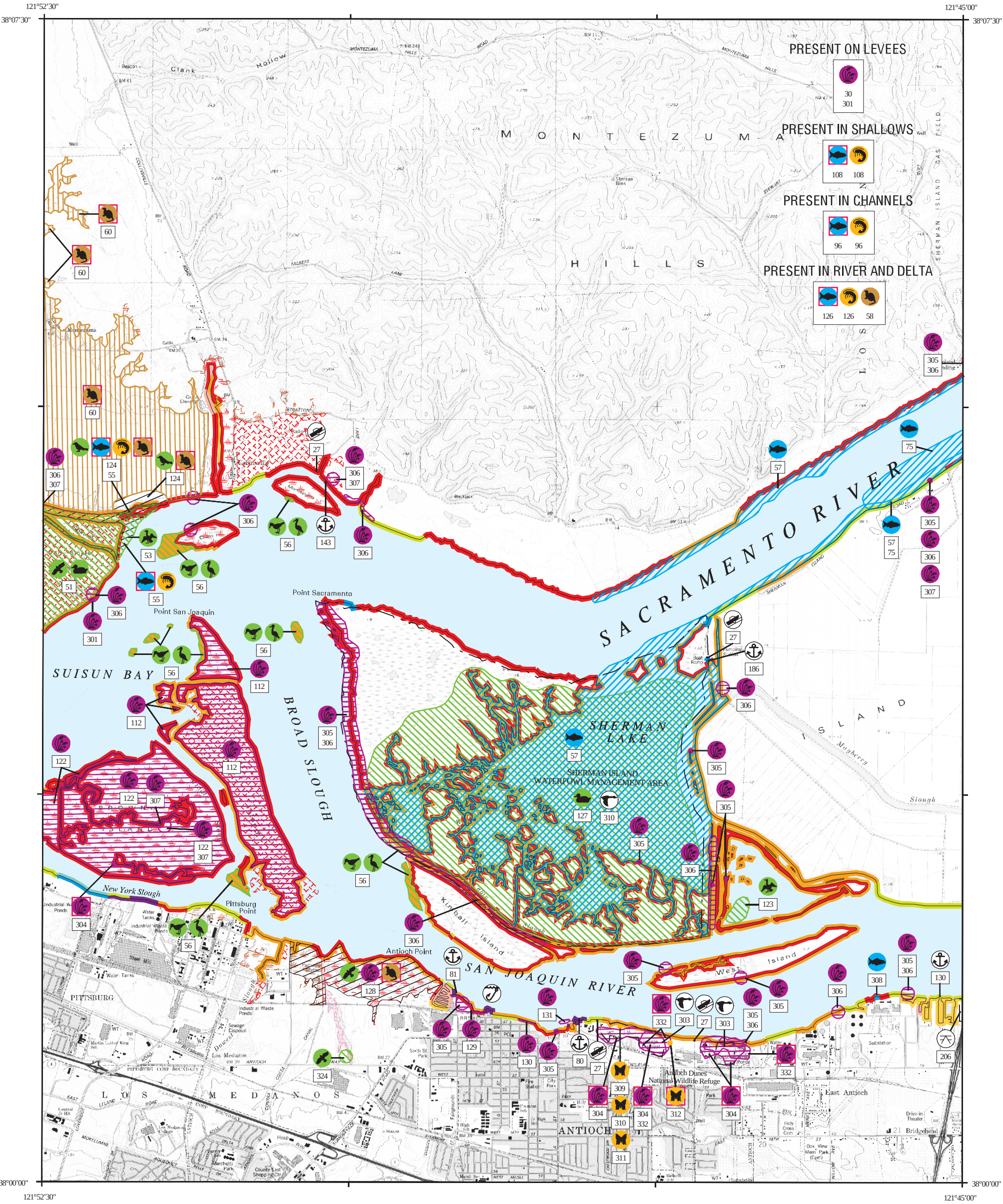
WATER INTAKE:

HUN#	Name	Owner	Contact	Phone
301	WATER INTAKE	SUISUN RESOURCE CONSERVATION DISTRICT		707-425-9302

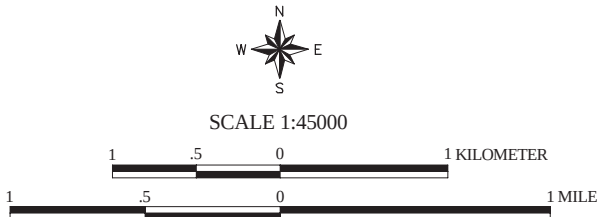
WILDLIFE REFUGE/MGMT AREA:

HUN#	Name	Owner	Contact	Phone
308	GRIZZLY ISLAND STATE WILDLIFE AREA	CDFG	MANAGER	707-425-3828

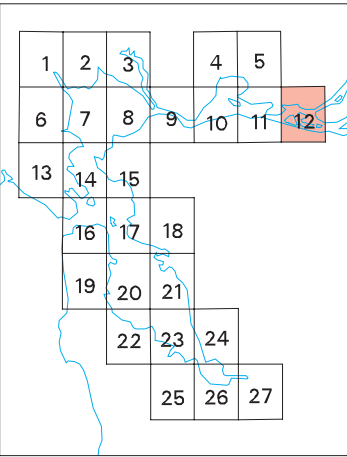
ENVIRONMENTAL SENSITIVITY INDEX MAP



- SHORELINE HABITATS**
- 1A EXPOSED ROCKY SHORES
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SAN FRANCISCO BAY – ESIMAP 12

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
51	Canada goose			2000	X	X	X	X					X	X	X	X	-	-	-	-
	Canvasback			MEDIUM	X	X	X	X					X	X	X	X	-	-	-	-
	Dabbling ducks			HIGH	X	X	X	X					X	X	X	X	-	-	-	-
	Greater white-fronted goose			1000	X	X	X	X					X	X	X	X	-	-	-	-
	Northern pintail			HIGH	X	X	X					X	X	X	X	X	-	-	-	-
	Ruddy duck			MEDIUM	X	X	X	X					X	X	X	X	-	-	-	-
	Short-eared owl			PRESENT			X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Snow goose			200	X	X	X	X					X	X	X	X	-	-	-	-
	Tundra (whistling) swan			200	X	X	X						X	X	X	X	-	-	-	-
53	Clark's grebe			HIGH	X	X	X	X	X				X	X	X	X	-	-	-	-
	Western grebe			HIGH	X	X	X	X					X	X	X	X	-	-	-	-
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	-	-	-	-
123	Double-crested cormorant			28	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-MAY	MAR-JUN	MAY-AUG
124	Saltmarsh common yellowthroat			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
127	Waterfowl			HIGH	X	X	X						X	X	X	X	-	-	-	-
128	White-tailed kite			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
324	White-tailed kite			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

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
55	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	-	-	-	-	JAN-JUN	JAN-JUN	JAN-JUL	APR-SEP	JAN-JUL
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-MAY	APR-JUN	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
57	Sacramento splittail			HIGH						X	X	X	X	X	X	X	-	-	-	JUN-NOV	JUN-NOV
75	Starry flounder			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-DEC	JAN-DEC	JAN-DEC
96	American shad			HIGH						X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	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
	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	APR-AUG	JAN-DEC
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White croaker			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-MAR	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
108	American shad			HIGH						X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	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
	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	APR-AUG	JAN-DEC
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White croaker			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-MAR	JAN-DEC	-
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
126	American shad			HIGH						X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-JUL
	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
	Delta smelt	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	FEB-JUN	FEB-JUL	APR-AUG	JAN-DEC
	Green sturgeon			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Longfin smelt			HIGH	X	X	X	X									-	JAN-MAR	JAN-APR	APR-APR	-
	Striped bass			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	APR-MAY	APR-JUN	JAN-DEC	SEP-MAY
	White sturgeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
308	Sacramento perch			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HABITAT/PLANT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
30	Mason's lilaeopsis			POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X
112	Delta tule pea			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X
122	Delta tule pea			LOW	X	X	X	X	X	X	X	X	X	X	X	X
	Suisun marsh aster			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
128	Delta tule pea			LOW	X	X	X	X	X	X	X	X	X	X	X	X
	Suisun marsh aster			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
129	Suisun marsh aster			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
130	Suisun marsh aster			MEDIUM	X	X	X	X	X	X	X	X	X	X	X	X
131	Suisun marsh aster			LOW	X	X	X	X	X	X	X	X	X	X	X	X
301	Delta tule pea			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
304	Antioch dunes evening-primrose	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
305	Mason's lilaeopsis			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
306	Suisun marsh aster			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
307	Delta mudwort			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
332	Contra Costa wallflower	S/F	E/E	PRESENT	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
55	California bay shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-SEP	MAR-OCT	JAN-NOV
96	California bay shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAR	JAN-SEP	MAR-SEP	-	JAN-NOV
108	California bay shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-SEP	MAR-OCT	JAN-NOV
126	California bay shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-SEP	MAR-OCT	JAN-NOV
309	Middlekauf's shieldback katydid			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-
310	Antioch efferian robberfly			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-
311	Antioch andrenid bee			PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-
312	Lange's metalmark butterfly	F	E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-

TERRESTRIAL MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
58	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
60	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
124	Salt-marsh harvest mouse	S/F	E/E	PRESENT	X	X	X	X	X	X	X	X	X	X	X	X
128	Salt-marsh harvest mouse	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

BOAT RAMP:

HUN#	Name
27	BOAT RAMP

MARINA:

HUN#	Name
80	ANTIOCH BOAT RAMP
81	ANTIOCH MARINA
130	MARINA
143	MONTEZUMA BOAT RAMP
186	SHERMAN ISLAND BOAT RAMP

STATE/REGIONAL PARK:

HUN#	Name	Owner	Contact	Phone
206	ANTIOCH REGIONAL SHORELINE	EBRP	DISPATCH	510-881-1833

WILDLIFE REFUGE/MGMT AREA:

HUN#	Name	Owner	Contact	Phone
303	ANTIOCH DUNES NATIONAL WILDLIFE REFUGE	USFWS	REFUGE MANAGER	510-792-0222

