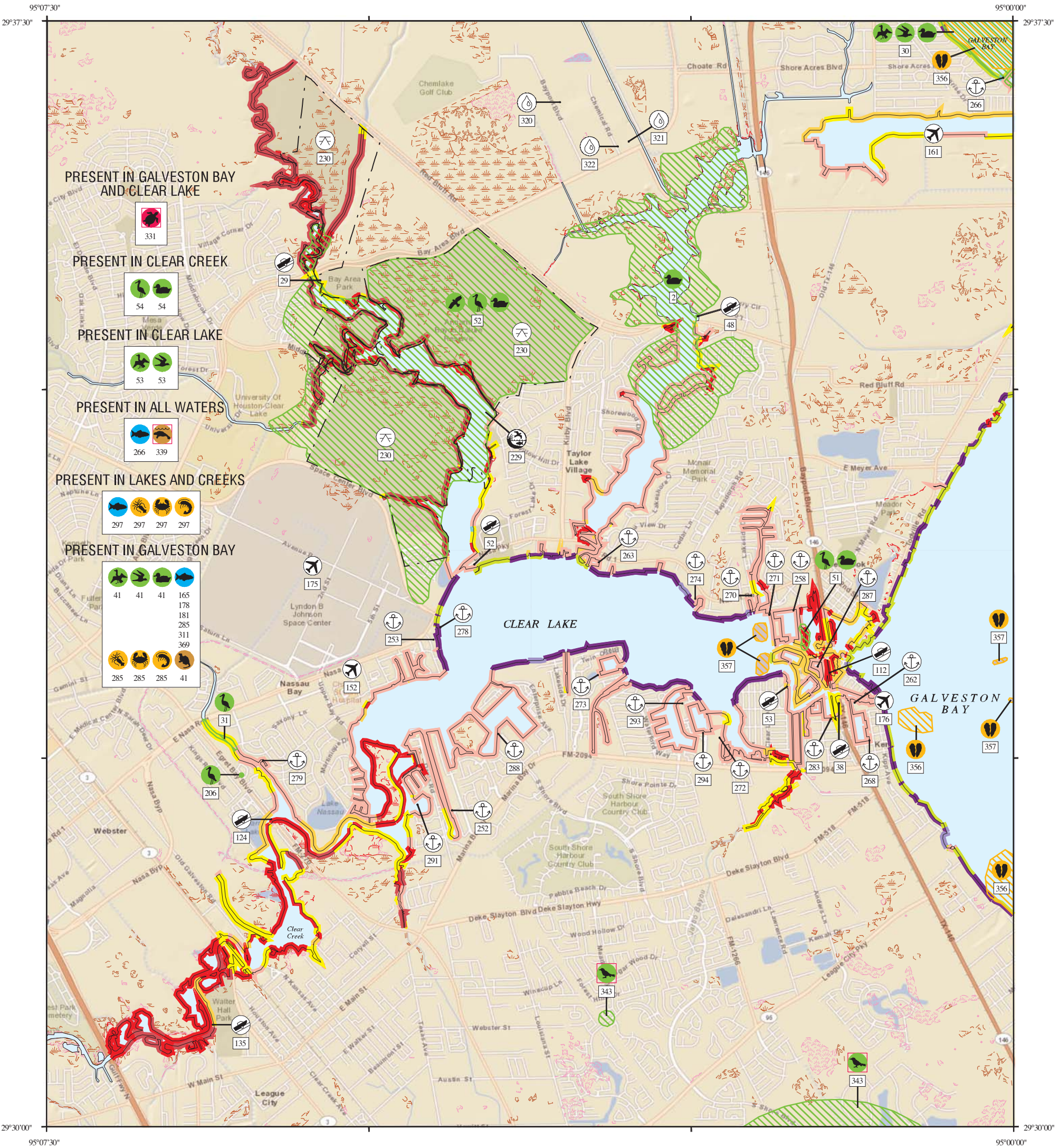
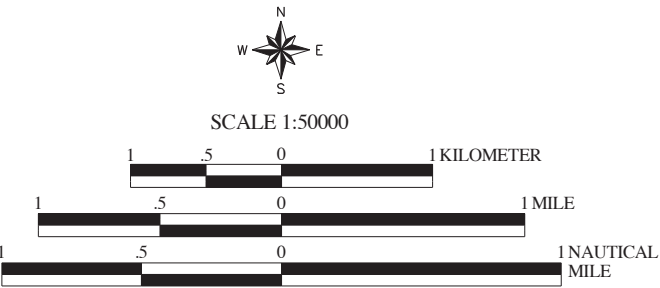


ENVIRONMENTAL SENSITIVITY INDEX MAP



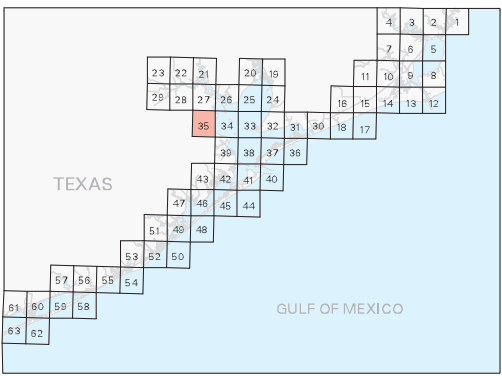
SHORELINE HABITATS (ESI)

- 1B EXPOSED, SOLID MAN-MADE STRUCTURES
- 2A EXPOSED WAVE-CUT PLATFORMS IN CLAY
- 2B EXPOSED SCARPS AND STEEP SLOPES IN CLAY
- 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
- 3B SCARPS AND STEEP SLOPES IN SAND
- 5 MIXED SAND AND GRAVEL (SHELL) BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED SCARPS IN CLAY OR BEDROCK
- 8B SHELTERED, SOLID MAN-MADE STRUCTURES
- 8C SHELTERED RIPRAP
- 9A SHELTERED TIDAL FLATS
- 10A SALT-AND BRACKISH-WATER MARSHES
- 10B FRESHWATER MARSHES
- 10C SWAMPS
- 10D SCRUB-SHRUB WETLANDS



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Emergency Response Division





Upper Texas Coast: 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
2	Waterfowl		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
30	Cormorants		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Grebes	HIGH	X	X	X	X	X			X	X	X	X		-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loons	HIGH	X	X	X	X					X	X	X		-	-	-
	Pelicans		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	-	-	-
	Waterfowl	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
31	Wading birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
41	Black skimmer		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	-	-	-
	Diving birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Diving ducks		X	X	X	X					X	X	X		-	-	-
	Grebes		X	X	X	X	X			X	X	X	X		-	-	-
	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loons		X	X	X	X					X	X	X		-	-	-
	Pelicans		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	-	-	-
51	Marsh birds		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	-	-	-
52	Marsh birds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Osprey		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	-	-	-
53	Gulls		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pelicans		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	-	-	-
54	Marsh birds		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	-	-	-
206	Green heron	50 INDIV		X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-
343	Attwater's greater prairie chicken	E E	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
165	Atlantic sharpnose shark					X	X	X	X	X	X	X	X	X	JUN-JUN	MAY-JUN	JUN-OCT	-	APR-OCT
178	Bull shark	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	MAY-AUG	MAY-AUG	APR-NOV	JAN-DEC
181	Blacktip shark				X	X	X	X	X	X	X	X	X	X	MAY-JUN	MAY-JUN	MAY-NOV	MAR-NOV	MAY-JUN
266	Tarpon	RARE			X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-NOV	-
285	Atlantic bumper	COMMON								X	X	X			-	-	-	-	AUG-OCT
	Atlantic croaker	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-JUN	JAN-DEC	JAN-DEC
	Atlantic spadefish	RARE								X	X	X			-	-	-	AUG-OCT	-
	Bay anchovy	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	MAR-NOV	MAR-NOV	JAN-DEC	JAN-DEC
	Bay whiff	RARE	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	APR-APR	JAN-DEC
	Black drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Crevalle jack	COMMON			X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-NOV	SEP-NOV
	Gafftopsail catfish	COMMON			X	X	X	X	X	X	X	X	X	X	APR-MAY	-	-	APR-OCT	MAR-OCT
	Gizzard shad	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Gulf butterfish	RARE	X	X	X	X						X			-	-	-	-	-
	Gulf killifish	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-OCT	JAN-DEC	JAN-DEC
	Gulf menhaden	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Hardhead catfish	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	MAY-SEP	MAY-SEP	MAY-OCT	JAN-DEC
	Pinfish	RARE			X	X	X	X	X						-	-	-	APR-AUG	-
	Red drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-NOV	JAN-DEC	JAN-DEC
	Sand seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sheepshead	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Silver perch	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	MAR-MAR	JAN-DEC
																	OCT-NOV		
	Silversides	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Southern flounder	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Southern kingfish	COMMON					X	X	X	X	X	X	X	X	-	-	-	MAY-NOV	-
	Spanish mackerel	COMMON					X	X	X	X	X				-	-	-	JUN-OCT	JUN-OCT
	Spot	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-SEP	JAN-DEC
	Spotted seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	AUG-NOV	JAN-DEC
	Striped mullet	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	White mullet	COMMON					X	X	X	X	X				-	-	-	JUN-OCT	-
297	Alligator gar		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Atlantic croaker	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-JUN	JAN-DEC	JAN-DEC
	Atlantic spadefish	RARE					X	X	X						-	-	-	JUN-SEP	-
	Bay anchovy	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	MAR-NOV	MAR-NOV	JAN-DEC	JAN-DEC
	Bay whiff	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAY-JUL	JAN-DEC
	Black drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Crevalle jack	RARE			X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-NOV	-
	Gafftopsail catfish	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	-	-	APR-NOV	JAN-DEC
	Gizzard shad	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Gulf killifish	RARE	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	MAR-SEP	MAR-OCT	JAN-DEC	JAN-DEC
	Gulf menhaden	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Hardhead catfish	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	MAY-SEP	MAY-SEP	JUL-OCT	JAN-DEC
	Pinfish	COMMON			X	X	X	X	X	X					-	-	-	MAR-SEP	JUL-SEP
	Red drum	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-NOV	JAN-DEC	JAN-DEC
	Sand seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sheepshead	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	NOV-JUN	JAN-DEC
	Silver perch	RARE	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	MAR-JUN	JAN-DEC
																	OCT-DEC		
	Silversides	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	JAN-DEC	JAN-DEC
	Southern flounder	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spot	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-OCT	JAN-DEC
	Spotted gar		X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	APR-MAY	-	JAN-DEC	JAN-DEC
	Spotted seatrout	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-OCT	APR-OCT	JUN-DEC	JAN-DEC
	Striped mullet	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	White mullet	COMMON					X	X	X	X	X				-	-	-	APR-SEP	-
311	Finetooth shark						X	X	X	X	X				-	MAY-JUN	MAY-OCT	-	MAY-JUN
369	Spinner shark						X	X	X	X	X	X			MAY-JUN	MAY-JUN	MAY-JUL	MAY-OCT	MAY-OCT

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
285	Blue crab	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	MAR-OCT	MAR-NOV	JAN-DEC	JAN-DEC
	Brief squid	COMMON			X	X	X	X	X	X	X	X	X	X	MAR-DEC	MAR-DEC	MAR-DEC	MAR-DEC	MAR-DEC
	Brown shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-APR	APR-JAN	-
	Grass shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Lesser blue crab	COMMON						X	X	X	X	X	X	X	-	-	-	JUL-OCT	SEP-DEC
	White shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	JUN-OCT	JUN-DEC	JAN-DEC
297	Blue crab	HIGHLY ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	MAR-OCT	MAR-NOV	JAN-DEC	JAN-DEC
	Brief squid	RARE					X	X							MAY-JUN	MAY-JUN	MAY-JUN	MAY-JUN	MAY-JUN
	Brown shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	-	-	FEB-APR	JAN-DEC	-
	Grass shrimp	ABUNDANT	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	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.

Upper Texas Coast: ESIMAP 35 (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
297	Gulf stone crab	RARE	X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	White shrimp	HIGHLY ABUNDANT	X X X X X X X X X X X	-	-	JUN-OCT	JAN-DEC	NOV-SEP
356	Eastern oyster	UNCONSOLIDATED	X X X X X X X X X X X	MAR-DEC	MAR-DEC	-	-	JAN-DEC
357	Eastern oyster	REEF	X X X X X X X X X X X	MAR-DEC	MAR-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
339	West Indian manatee	E E VERY RARE	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
331	Kemp's ridley sea turtle	E E COMMON	X X X X X X X X	-	-	-	APR-NOV	-

TERRESTRIAL MAMMAL:

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

HUMAN USE RESOURCES:

BOAT RAMP:

HUN#	Name	Contact	Phone
29	BAY AREA PARK		
38	BEN BLACKLEDGE		
48	CECIL'S RED LANTERN		
52	CLEAR LAKE PARK BOAT RAMP		
53	CLEAR LAKE SHORES PUBLIC RAMP		
112	SEABROOK BOAT RAMP		
124	TPW RAMP UNDER 270 BRIDGE		
135	Walter Hall County Park		

HELIPORT:

HUN#	Name	Contact	Phone
152	CHRISTUS ST. JOHN HOSPITAL		
161	FINA BAYPORT		
175	JOHNSON SPACE CENTER		
176	KEMAH WATERFRONT		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
229	ARMAND BAYOU COASTAL PRESERVE	TGLO-TPWD	
230	ARMAND BAYOU NATURE CENTER		

MARINA:

HUN#	Name	Contact	Phone
252	ANCHORAGE APARTMENTS & MARINA	GAIL HAMMOND	281/334-2527
253	BAL HARBOUR ASSOCIATION	FRANK DOWNES	281/333-5168
258	BLUE DOLPHIN YACHTING CENTER	AL DIPPEL	281/474-4450
262	CAPT. WICKS LANDING	CAPT. WICK	281/334-1563
263	CLEAR LAKE MARINE CENTER		281/326-4426
266	HOUSTON YACHT CLUB	JOE CARR	281/471-1255
268	KEMAH BOARDWALK MARINA		281/334-2284
270	LAKESIDE YACHTING CENTER	DR. JAMES HEBERT	281/326-5547
271	LAKEWOOD YACHT CLUB	JOAN CORDES	281/474-2511
272	LEGEND POINT MARINA	MIKE ROBERTSON	281/334-3811
273	MARINA DEL SOL	TREY CAUDELL	281/334-3909
274	MARKER 1 MARINA		832/864-4000
278	NASSAU BAY HILTON MARINA	MIKE BUTLER	281/333-9300
279	NASSAU BAY YACHT CLUB	BOB FORD	281/333-5809
283	PORTOFINO HARBOR	TOM RICHARDS	281/334-6007
287	SEABROOK SHIPYARD	BOB CONNERS	281/474-2586
288	SOUTH SHORE HARBOUR MARINA	BILL MCKEE	281/334-0515
291	THE WHARF AT CLEAR LAKE	J.R. MCCONNELL	877/375-4606
293	WATERFORD HARBOR YACHT CLUB	J. WILLIAM "BILL" TAYLOR	281/334-4400
294	WATERGATE YACHTING CENTER	ROBERT & HARRY BASCHER	281/334-1511

WATER INTAKE:

HUN#	Name	Contact	Phone
320	DIANAL AMERICA INC		
321	DIXIE CHEMICAL CO PLANT B		
322	DIXIE CHEMICAL COMPANY PLANT A		