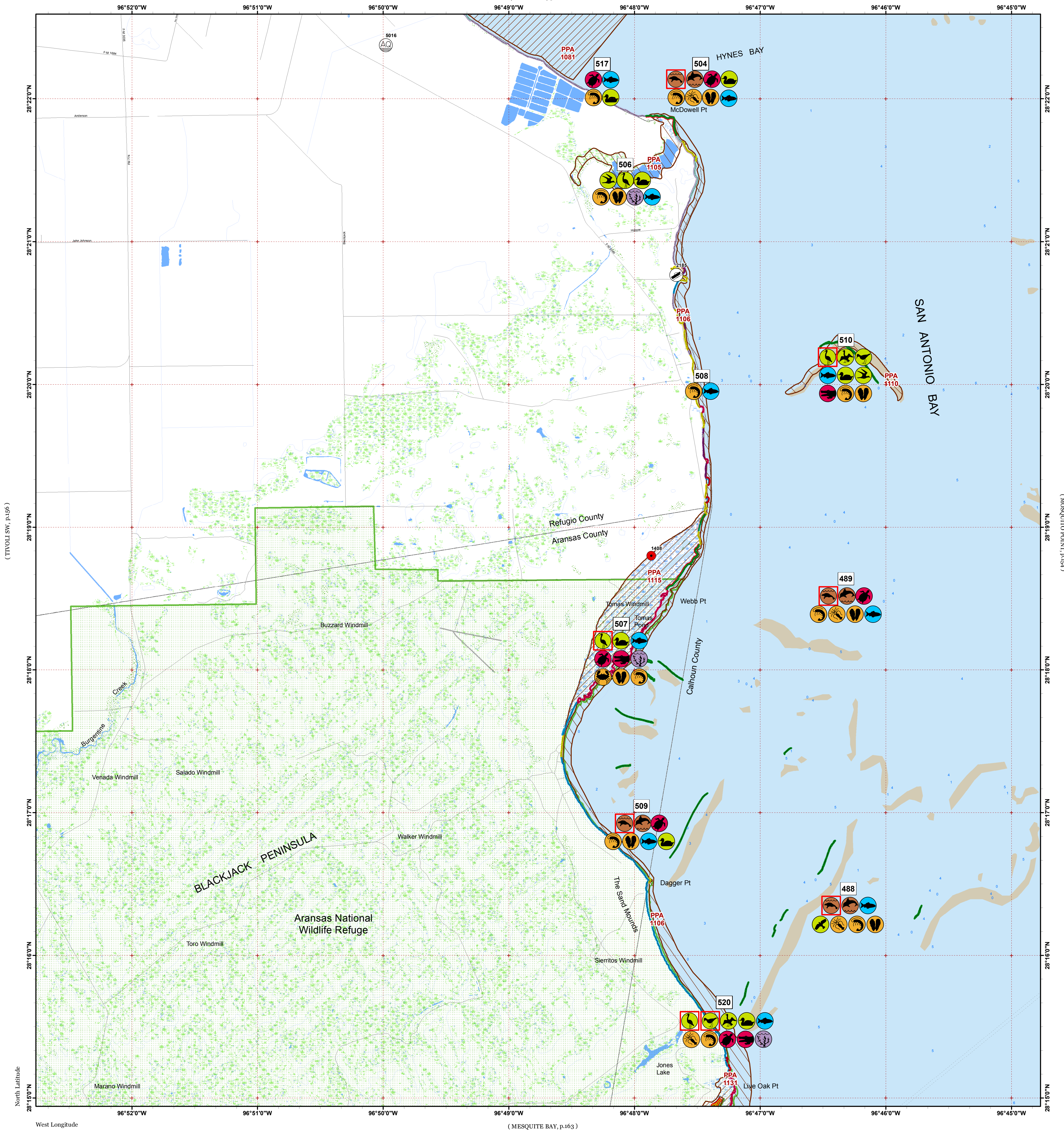


TIVOLI SE

(AUSTWELL, p.148)

Click Here or Scroll Down for Associated Map Data

Click on the Geographic Response Plan Target to View the ICS Form



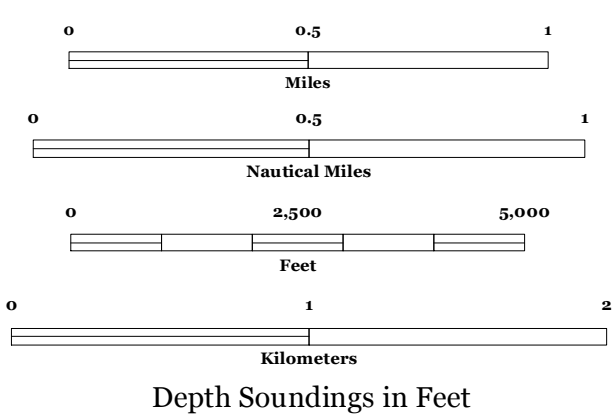
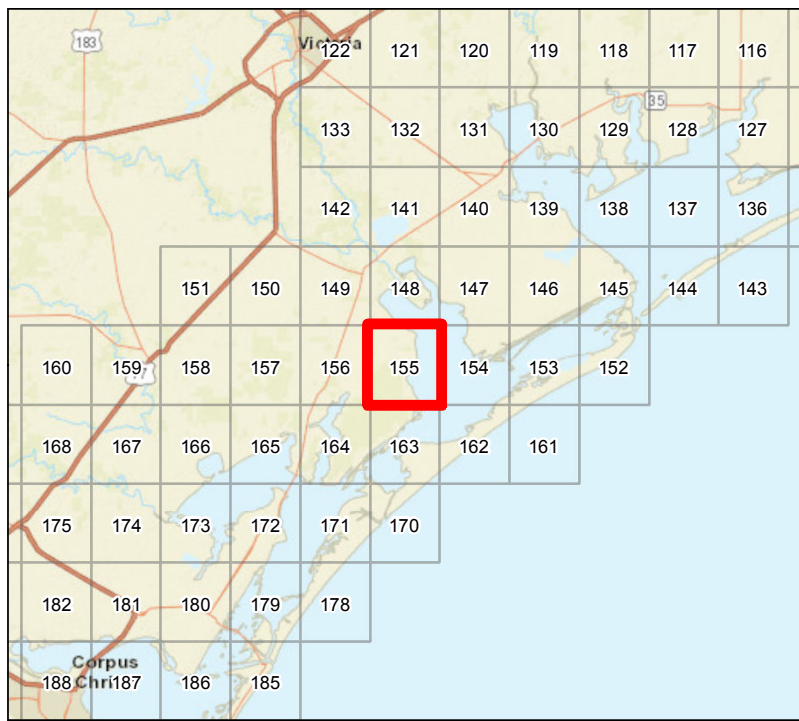
(MESQUITE BAY, p.163)



Oil Spill Planning and Response Atlas

2016

The Texas General Land Office makes no representations or warranties regarding the accuracy or completeness of the information depicted on this map or the data from which it was produced. This map is not suitable for navigational purposes and does not purport to depict boundaries of private and public land.



Human Use Features

- Aquaculture Site
- Boat Ramp
- Facility

Map Base Layers

- Airport Runways
- Road
- GIWW
- Wildlife Refuge
- Oysters
- Estuarine Seagrass or Algae Bed
- Bays
- Salt and Brackish Marshes
- Intertidal Scrub/Shrub
- Beach or Tidal Flat
- Freshwater Marshes
- Willow Thickets
- Lake / Pond
- County Boundary

Priority Protection Areas

- HIGH
- MEDIUM
- LOW

Species Icons Within Map Quad

- Alligator
- Turtle
- Benthic Marine
- Bivalve
- Cephalopod
- Crab
- Shrimp
- Fish
- Fish T/E
- Dolphin
- Mammal T/E
- Marsh
- Diving Bird
- Gull/Tern
- Raptor
- Shorebird
- Shorebird Endangered
- Wading
- Wading Endangered
- Waterfowl

ENVIRONMENTAL SENSITIVITY INDEX

- 10D Mangroves and Woody Vegetation
- 10C Freshwater Swamps
- 10B Freshwater Marshes
- 10A Salt and Brackish Water Marshes
- 9 Sheltered Tidal Flats
- 8C Sheltered Rocky/Karst Shores
- 8D Sheltered Scarps
- 8B Sheltered Riprap Structures
- 8A Sheltered Solid Manmade Structures
- 7 Exposed Tidal Flats
- 6B Exposed Riprap Structures
- 6A Gravel or Shell Beaches
- 5 Mixed Sand and Gravel or Shell Beaches
- 4 Coarse-Grained Sand Beaches
- 3B Scraps and Steep Slopes in Sand
- 3A Fine-Grained Sand Beaches
- 2B Wave-Cut Clay Platforms
- 2A Scraps and Steep Slopes in Clay
- 1 Exposed Walls and Other Solid Structures

Quadrant: TIVOLI SE

Map # :155

Biological Information for this quadrant represents known concentration areas of occurrence.

Habitat Priority Protection Areas

PPA ID	PRIORITY	POLY DESC	BIRDS RANK	BIRDS DESC	FISH DESC	FISH RANK	WETLANDS R	WETLANDS D
PPA1081	HIGH	Hynes Bay	LOW	Waterfowl	Rangia, oysters, shrimp (white, brown and grass), forage fishes, red drum.	HIGH		
PPA1105	MEDIUM	McDowell Point freshwater marsh	MEDIUM	Waterfowl drinking pond and rafting area. Shorebirds along margins, including plovers.			MEDIUM	Freshwater marsh with Typha spp. and spike rush predominate.
PPA1106	MEDIUM	West shore of San Antonio Bay	MEDIUM	Shorebirds, wading birds, waterfowl, piping plover along unvegetated shoreline areas. Occasional whooping crane usage area.	Oyster reefs	MEDIUM	MEDIUM	SAV including Ruppia maritima and Halodule wrightii, also Spartina alterniflora marsh.
PPA1110	LOW	Halfmoon Reef	MEDIUM	Pelican and gull loafing area.	Oyster reef and reef associated fish and invertebrates.	MEDIUM		
PPA1115	HIGH	Webb Point wetlands (Aransas National Wildlife Refuge)	HIGH	High waterfowl including snow and Canada geese, wigeon, pintail, herons, whooping crane feeding, shorebirds. Diamondback terrapins.	Fish and invertebrate nursery.	MEDIUM	HIGH	Spartina alterniflora fringe marsh moving to freshwater marsh inland.
PPA1131	HIGH	Aransas National Wildlife Refuge eastern shore, salt marsh area	VERY HIGH	Whooping crane wintering area, high waterfowl usage, high shorebirds, piping plover and wading birds. Diamondback terrapins, American alligator in secondary bays.	Fish and invertebrate nursery.	VERY HIGH	HIGH	Very high productivity Spartina alterniflora marsh.

Biological Resources

Bird

RARNUM	NAME	S	F	CONC	J	F	M	A	M	J	J	A	S	O	N	D	NESTING	LAYING	HATCHING	FLEDGING
488	Bald eagle				X	X	X	X	X	X	X	X	X	X	X	X	JAN–AUG	JAN–AUG	JAN–AUG	FEB–SEP
504	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
506	Laughing gull				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-AUG	MAR-SEP
	Forster's tern				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	MAR-SEP
	Wading birds				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUL	MAR-JUL	MAR-AUG
	Willet				X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-AUG	APR-AUG	MAY-SEP
	Reddish egret				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	APR-AUG	APR-AUG	APR-SEP
	White ibis				X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	FEB-JUN	FEB-JUN	MAR-JUL
	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
	Hooded merganser				X	X	X	X						X	X	X				
507	Migratory songbirds						X	X	X	X		X	X	X	X					
	Wading birds				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUL	MAR-JUL	MAR-AUG
	Whooping crane		E		X	X	X	X						X	X	X				
	Clapper rail				X	X	X	X	X	X	X	X	X	X	X	X	MAR–AUG	MAR–AUG	MAR–AUG	APR–SEP
	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
	Northern pintail	C			X	X	X	X				X	X	X	X	X				
	American wigeon				X	X	X	X						X	X	X				
	Northern shoveler				X	X	X	X	X				X	X	X	X				
	Geese				X	X	X	X						X	X	X				
509	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
	Geese				X	X	X	X						X	X	X				
510	Brown pelican				X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	APR-AUG	APR-AUG	APR-AUG
	Gulls				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				
	American oystercatcher	C			X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	MAY-AUG	MAY-AUG	MAY-SEP
	Wading birds				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUL	MAR-JUL	MAR-AUG
	Whooping crane		E		X	X	X	X						X	X	X				
	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
517	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
	Snow goose			HIGH	X	X	X							X	X	X				
520	Shorebirds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X				
	Red knot		T					X	X				X	X						
	Western sandpiper	C			X	X	X	X			X	X	X	X	X	X				
	Piping plover		T		X	X	X	X	X		X	X	X	X	X	X				
	Short-billed dowitcher				X	X	X	X	X		X	X	X	X	X	X				
	American avocet				X	X	X	X	X			X	X	X	X	X				
	Cormorants				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	MAR-JUL	MAR-JUL	MAR-JUL	MAR-AUG
	Willet				X	X	X	X	X	X	X	X	X	X	X	X	APR–AUG	APR–AUG	APR–AUG	MAY–SEP
	Whooping crane		E	HIGH	X	X	X	X						X	X	X				
	Clapper rail				X	X	X	X	X	X	X	X	X	X	X	X	MAR–AUG	MAR–AUG	MAR–AUG	APR–SEP
	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
	Northern pintail	C			X	X	X	X				X	X	X	X	X				
	Blue-winged teal				X	X	X	X	X	X		X	X	X	X	X	APR-MAY			
	Mottled duck	C		HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN–AUG	JAN–AUG	JAN–AUG	FEB–SEP
	Gadwall				X	X	X	X						X	X	X				
	Redhead				X	X	X	X	X					X	X	X				
	Canada goose				X	X	X							X	X	X				
	American white pelican	C		HIGH	X	X	X	X	X	X	X	X	X	X	X	X	FEB–AUG	FEB–AUG	FEB–AUG	MAR–SEP

Fish

RARNUM	NAME	S	F	CONC	J	F	M	A	M	J	J	A	S	O	N	D	LARV/JUV	SPAWNING
488	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
	Sheepshead				X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	FEB-APR
	Gafftopsail catfish				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-AUG
	Black drum				X	X	X	X	X	X	X	X	X	X	X	X	ALLYEAR	DEC-MAY
489	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
	Sheepshead				X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	FEB-APR
	Gafftopsail catfish				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-AUG
	Black drum				X	X	X	X	X	X	X	X	X	X	X	X	ALLYEAR	DEC-MAY
504	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
	Black drum				X	X	X	X	X	X	X	X	X	X	X	X	ALLYEAR	DEC-MAY
506	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
507	Gars				X	X	X	X	X	X	X	X	X	X	X	X		MAY-AUG
	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
508	Sheepshead				X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	FEB-APR
	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
509	Black drum				X	X	X	X	X	X	X	X	X	X	X	X	ALLYEAR	DEC-MAY
	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
509	Sheepshead				X	X	X	X	X	X	X	X	X	X	X	X	JAN-MAY	FEB-APR
	Gafftopsail catfish				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-AUG
	Black drum				X	X	X	X	X	X	X	X	X	X	X	X	ALLYEAR	DEC-MAY
	Blue catfish				X	X	X	X	X	X	X	X	X	X	X	X		APR-MAY
510	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
517	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
520	Black drum				X	X	X	X	X	X	X	X	X	X	X	X	ALLYEAR	DEC-MAY
	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
520	Gafftopsail catfish				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-AUG
	Black drum				X	X	X	X	X	X	X	X	X	X	X	X	ALLYEAR	DEC-MAY

Invertebrate

RARNUM	NAME	S	F	CONC	J	F	M	A	M	J	J	A	S	O	N	D	LARV/JUV	SPAWNING
488	Eastern oyster			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JAN	MAR-NOV
	Dwarf surf clam				X	X	X	X	X	X	X	X	X	X	X	X		MAY-NOV
	Amphipods				X	X	X	X	X	X	X	X	X	X	X	X		
	Ctenophores				X	X	X	X	X	X	X	X	X	X	X	X		
	Cnidarians				X	X	X	X	X	X	X	X	X	X	X	X		
	Polychaetes				X	X	X	X	X	X	X	X	X	X	X	X		
	Atlantic brief squid				X	X	X	X	X	X	X	X	X	X	X	X		
	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
489	Eastern oyster				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JAN	MAR-NOV
	Dwarf surf clam				X	X	X	X	X	X	X	X	X	X	X	X		MAY-NOV
	Ctenophores				X	X	X	X	X	X	X	X	X	X	X	X		
	Cnidarians				X	X	X	X	X	X	X	X	X	X	X	X		
	Atlantic brief squid				X	X	X	X	X	X	X	X	X	X	X	X		
	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
504	Brackishwater clam			HIGH	X	X	X	X	X	X	X	X	X	X	X	X		
	Ctenophores				X	X	X	X	X	X	X	X	X	X	X	X		
	Cnidarians				X	X	X	X	X	X	X	X	X	X	X	X		
	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
506	Eastern oyster				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JAN	MAR-NOV
	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
507	Eastern oyster				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JAN	MAR-NOV
	Stone crab				X	X	X	X	X	X	X	X	X	X	X	X		NOV-MAR
	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
508	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
509	Eastern oyster			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JAN	MAR-NOV
510	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
	Eastern oyster				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JAN	MAR-NOV
517	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
520	Cnidarians				X	X	X	X	X	X	X	X	X	X	X	X		
	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		

Marine Mammal

RARNUM	NAME	S	F	CONC	J	F	M	A	M	J	J	A	S	O	N	D	LARV/JUV	SPAWNING	MATING	CALVING
488	Bottlenose dolphin				X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	JUL-AUG	JAN-DEC	JAN-DEC
489	West Indian manatee		E	LOW			X	X	X	X	X	X	X	X	X					
	Bottlenose dolphin				X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	JUL-AUG	JAN-DEC	JAN-DEC
504	West Indian manatee		E	LOW			X	X	X	X	X	X	X	X	X					
	Bottlenose dolphin				X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	JUL-AUG	JAN-DEC	JAN-DEC
509	West Indian manatee		E	LOW			X	X	X	X	X	X	X	X	X					
	Bottlenose dolphin				X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	JUL-AUG	JAN-DEC	JAN-DEC
509	West Indian manatee		E	LOW			X	X	X	X	X	X	X	X	X					

Reptile

RARNUM	NAME	S	F	CONC	J	F	M	A	M	J	J	A	S	O	N	D	NESTING	LAYING	HATCHING	LARV/JUV
489	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
504	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
507	American alligator				X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-DEC	JUN-DEC	ALLYEAR
	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
509	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
510	American alligator				X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-DEC	JUN-DEC	ALLYEAR
517	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
520	American alligator				X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-DEC	JUN-DEC	ALLYEAR
	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	

Human Use Resources

Aquaculture Site	RARNUM	NAME	CONTACT	CONTACT INFO
	5016	Austwell Aqua Farms		P.O. Box 125, Austwell, TX 77950 - 361-286-3740
Boat Ramp	RARNUM	NAME	CONTACT	CONTACT INFO
	2185	Hoppers Landing		
Facility	RARNUM	NAME	CONTACT	CONTACT INFO
	1408	Bull RedFish Tank Battery	Ken Ahuja	361-446-2414