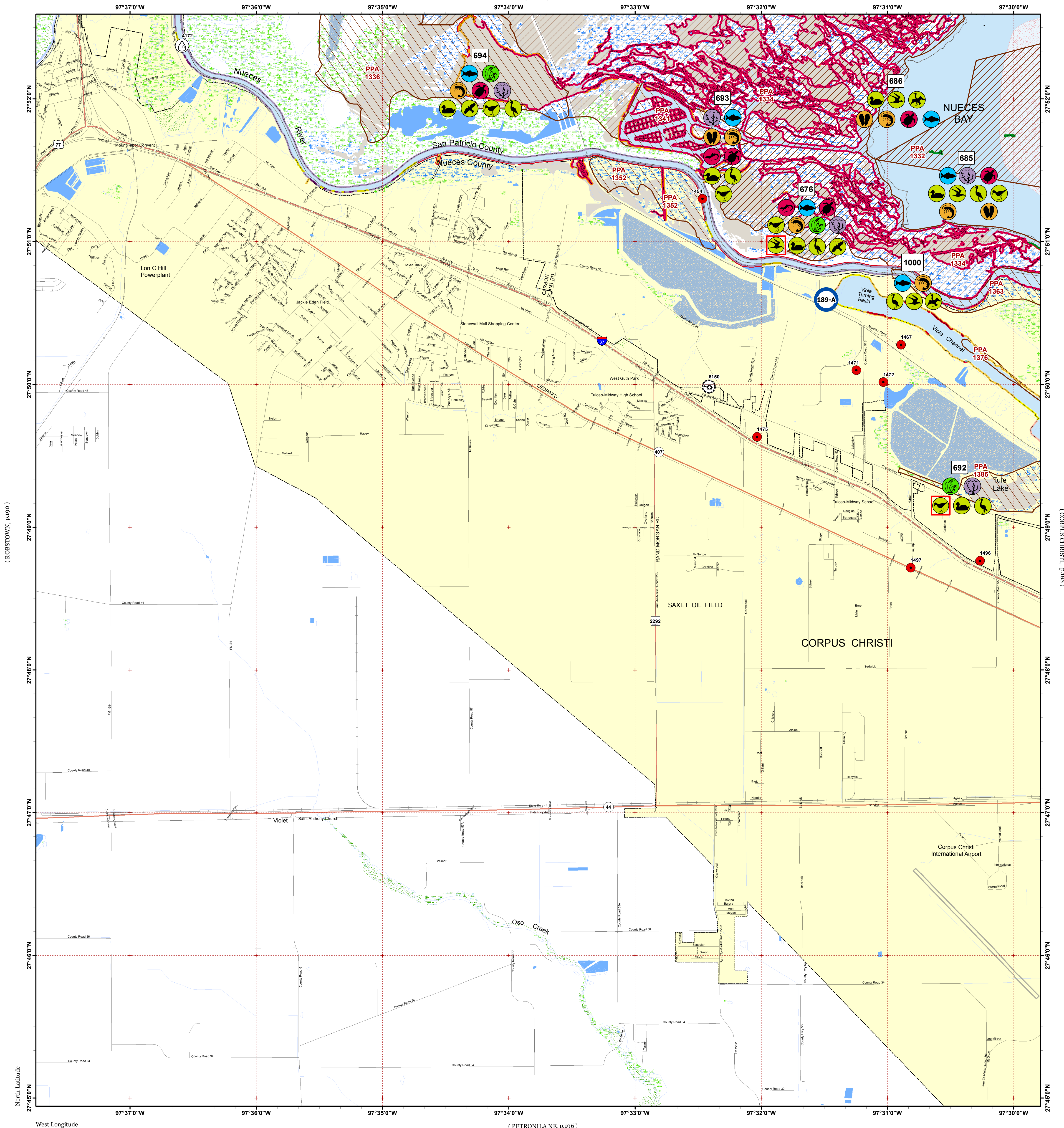


ANNAVILLE

(ODEM, p.183)

Click Here or Scroll Down for Associated Map Data

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



(ROBUSTOWN, p.190)

(CORPUS CHRISTI, p.188)

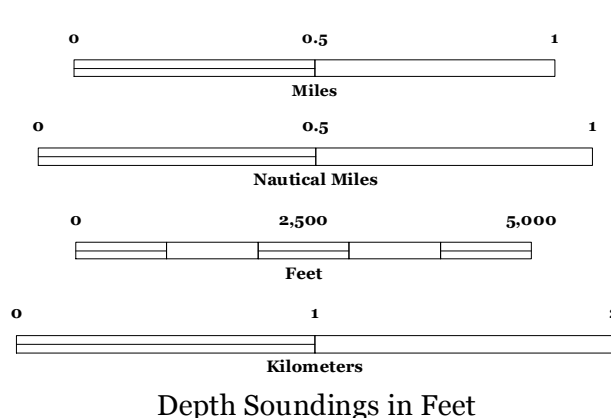
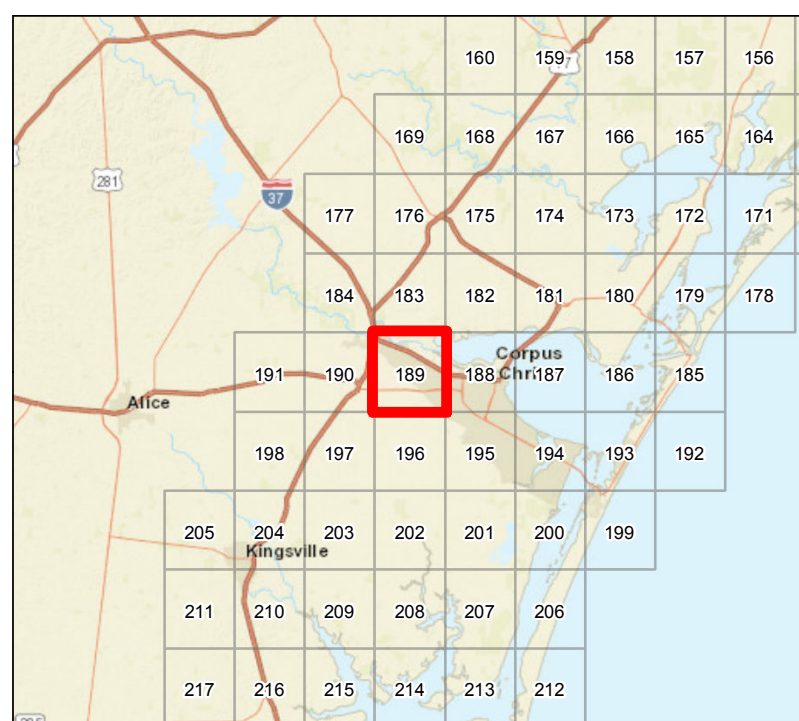
(PETRONILA NE, p.196)



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

- Facility
- Heliport
- Water Intake
- Geographic Response Plan

Map Base Layers

- County Road
- Interstate Highway
- State Highway
- US Highway
- Railroads
- Airport Runways
- Road
- Bays
- Salt and Brackish Marshes
- Beach or Tidal Flat
- Exposed Lake Shore
- Freshwater Marshes
- Swamps and Flooded Woodlands
- Willow Thickets
- Lake / Pond
- County Boundary
- City Limits

Priority Protection Areas

- HIGH
- MEDIUM
- LOW

Species Icons Within Map Quad

- Reptile
- Turtle
- Shellfish
- Shrimp
- Fish
- Marsh
- Plant
- Diving Bird
- Gull/Tern
- Gull/Tern T/E
- Raptor
- Shorebird
- Shorebird Endangered
- Wading
- 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 Scarps and Steep Slopes in Sand
- 3A Fine-Grained Sand Beaches
- 2B Wave-Cut Clay Platforms
- 2A Scarps and Steep Slopes in Clay
- 1 Exposed Walls and Other Solid Structures



Quadrant: **ANNAVILLE**

Map # :189

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
PPA1332	HIGH	Islands in northwest Nueces Bay	HIGH	Terns; waterfowl (scaup, redhead, pintail), ospreys, pelicans; diamondback terrapins	Fish, shrimp, scattered oysters,Gizzard shad,Gafftopsail catfish			
PPA1334	HIGH	Nueces delta marsh and flats	HIGH	Shorebirds, wading birds, sandhill cranes, waterfowl, marsh birds, gulf saltmarsh snake	Important nursery	HIGH	HIGH	Deltaic marsh (Salicornia, Borrichia, Batis, Scirpus) with fringe of Spartina alterniflora on bay margin; high marsh (Spartina spartinae, other species) in interior
PPA1336	MEDIUM	South Lake region, west of Nueces delta	HIGH	MEDIUM	Nursery	LOW	MEDIUM	HIGH
PPA1341	MEDIUM	Mitigation area in Nueces delta	HIGH	Wading birds, ducks, shorebirds	Nursery habitat for shrimp, crabs	MEDIUM	LOW	Open water with some Ruppia
PPA1352	MEDIUM	Area north of landfill and MoPac Railroad line, south of Nueces River	HIGH				HIGH	High delta marsh (Monanthochloe, Salicornia, Borrichia)
PPA1363	MEDIUM	Mouth of Nueces River		Diamondback terrapins	Good nursery; sport fishing	HIGH	HIGH	
PPA1376	LOW	North side of Tule Lake Channel	LOW	Some piping plovers			MEDIUM	Patchy Spartina
PPA1385	MEDIUM	Tule Lake	HIGH	Shorebirds (stilts, avocet, piping plover, snowy plover nesting), waterfowl	Nursery	MEDIUM	LOW	Spartina alterniflora marsh at mouth of Tule Lake; mud flats, Scirpus maritima 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
1000	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				
	Terns				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
676	Least tern		E				X	X	X	X	X	X	X	X			APR-SEP	APR-SEP	MAY-SEP	MAY-SEP
	Peregrine falcon				X	X	X	X	X				X	X	X	X				
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X				
	Snowy plover				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-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
	Black rail				X	X	X	X	X	X	X	X	X	X	X	X		MAR-JUN		
	Wood stork				X	X	X	X	X	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				
	Laughing gull			12	X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-AUG	MAR-SEP
	Black skimmer	C			X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	APR-SEP	APR-SEP	APR-SEP
685	Caspian tern			9	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	MAR-JUN	MAR-JUN	MAR-JUL
	Forster's tern				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	MAR-AUG	MAR-AUG	MAR-SEP
	Gull-billed tern				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-AUG	MAR-SEP
	Black-crowned night-heron				X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-AUG	APR-AUG	APR-SEP
	Rails				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
	Roseate spoonbill			12	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-AUG	APR-AUG	MAY-SEP
	Great blue heron			78	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-MAR	FEB-APR	MAR-MAY
	Cattle egret				X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	APR-JUL	APR-JUL	APR-AUG
	Great egret			52	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	JAN-MAR	FEB-APR	MAR-MAY
	Snowy egret	C		4	X	X	X	X	X	X	X	X	X	X	X	X				
	Tricolored heron	C			X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	APR-AUG	APR-AUG	MAY-SEP
	Green-winged teal			HIGH	X	X	X	X					X	X	X	X				
	Teals				X	X	X	X					X	X	X	X				
	Gadwall				X	X	X	X					X	X	X	X				
686	Brown pelican				X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	APR-AUG	APR-AUG	APR-AUG
	Black skimmer	C			X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	APR-SEP	APR-SEP	APR-SEP
	Cormorants				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				
	Northern pintail	C			X	X	X	X					X	X	X	X				
	Lesser scaup				X	X	X	X					X	X	X	X				
	Greater scaup				X	X	X							X	X	X				
	American white pelican	C			X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-AUG	MAR-SEP
692	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X				
	Red knot		T					X	X				X	X						
	Snowy plover				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-AUG	MAR-SEP
	Piping plover		T		X	X	X	X	X		X	X	X	X	X	X				
	American avocet				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
	Reddish egret				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	APR-AUG	APR-AUG	APR-SEP
	Black-necked stilt				X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	APR-SEP	APR-SEP	APR-SEP
	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
	American white pelican	C			X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-AUG	MAR-SEP
693	Seaside sparrow	C			X	X	X	X	X	X	X	X	X	X	X	X				
	Snowy plover				X	X	X	X	X	X	X	X	X	X	X	X	FEB-AUG	FEB-AUG	FEB-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
	Waterfowl				X	X	X	X	X	X	X	X	X	X	X	X				
694	Seaside sparrow	C			X	X	X	X	X	X	X	X	X	X	X	X				



Bird

RARNUM	NAME	S	F	CONC	J	F	M	A	M	J	J	A	S	O	N	D	NESTING	LAYING	HATCHING	FLEDGING
	Peregrine falcon				X	X	X	X	X				X	X	X	X				
	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	MAR-JUL	MAR-JUL	MAR-JUL	MAR-AUG
	Black rail				X	X	X	X	X	X	X	X	X	X	X	X		MAR-JUN		
	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				

Fish

RARNUM	NAME	S	F	CONC	J	F	M	A	M	J	J	A	S	O	N	D	LARV/JUV	SPAWNING
1000	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
676	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
	Gafftopsail catfish				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-AUG
	Gizzard shad				X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	MAR-AUG
	Naked goby				X	X	X	X	X	X	X	X	X	X	X	X		
685	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
	Gafftopsail catfish				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-AUG
	Bull shark				X	X	X	X	X	X	X	X	X	X	X	X		JUN-JUL
	Black drum			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	ALLYEAR	DEC-MAY
	Gizzard shad				X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	MAR-AUG
686	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		
	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
	Gizzard shad				X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	MAR-AUG
693	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
	Gizzard shad				X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	MAR-AUG
694	Native fish community				X	X	X	X	X	X	X	X	X	X	X	X		

Invertebrate

RARNUM	NAME	S	F	CONC	J	F	M	A	M	J	J	A	S	O	N	D	LARV/JUV	SPAWNING
1000	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
676	Native shrimp and crab community				X	X	X	X	X	X	X	X	X	X	X	X		
685	Eastern oyster			LOW	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		
686	Eastern oyster			LOW	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		
693	Brackishwater clam				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		
694	Native shrimp and crab community				X	X	X	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
676	Gulf salt marsh snake				X	X	X	X	X	X	X	X	X	X	X	X				
	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
685	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
686	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
693	Gulf salt marsh snake				X	X	X	X	X	X	X	X	X	X	X	X				
	Texas diamondback terrapin	C			X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	MAY-JUL	APR-AUG	
694	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

Facility	RARNUM	NAME	CONTACT	CONTACT INFO
	1454	Blacknall Battery Facility	Linda Phelps	361-229-4385
	1467	Lyondell Basell	Randal Tatum	361-242-8165
	1471	West Plant - Flint Hills Resources	Valerie Pompa	361-816-3221
	1472	Koch Pipeline South TX Division	Robert Sanger	800-666-9046
	1475	Koch Crude Pipelines	Robert Sanger	800-666-0051
	1496	ETC Hydrocarbons Rio Bravo Pipeline	Kevin Kanak	na/
	1497	Plains Pipeline, L.P.	Brian Morris	361-289-8255
	RARNUM	NAME	CONTACT	CONTACT INFO
Heliport	6150	HPL	TS97	CORPUS CHRISTI, TX 78410
Water Intake	RARNUM	NAME	CONTACT	CONTACT INFO
	4172	ILA M NOAKES LINDGREEN		



**SAFETY NOTE:** High vessel traffic with dangerous wakes and surges possible. Slip, trip and fall hazard. Proper PPE is required.

8. Site Number: 189-A	9. Quad Name Annville	10. NOAA Chart # 11311	11. GLO Atlas Page # 189	12. County Nueces	
13. Site Information: 189-A  Location is in Corpus Christi Inner Harbor. Culvert is in the northwest corner of the Viola Turning Basin and leads to marshy area. Under high tide or flood conditions, the marsh may be linked with the harbor. Port security concerns. Call Port Police (361)882-1182 and Harbor Master (361)882-1773 before entering harbor and for notifications and updates.				14. Latitude From: 27°50'38.78" N	To:
				15. Longitude From: 97°31'32.13" W	To:
16. Closest Boat Ramp Public Oil Dock 3, 4, 7, 11 Ramp			17. Distance From Ramp 5.8 NM	18. Boat Type Medium to Shallow draft work boats.	
19. Directions From Local Sector  Take I-37 to Up River Rd., then North on Cantwell Ln. Follow Cantwell Ln. to guard gate at Public Docks 3, 4, 7, 11. Ramp is by dock #11. From ramp, head west to end of harbor.				20. Closest Airport Corpus Christi International Airport	
				21. Closest Helo Spot Spohn Hospital	

22. Trustee/Contact Numbers	23. Resources at Risk	24. Width of inlet 30 ft
USCG: (361) 888-3162 RRC: 361-242-3113	Atlas Priority Low	in ft.
USCG DUTY: 361-533-7166 TPWD: (512) 389-4848	Environmental Low	25. Water depth in ft. 1-3 ft
TGLO: 361-886-1650 NRDA: (512) 463 -9309	Economic High	26. Current
TCEQ: 361-825-3100 USFWS: 361-994-9005		27. No. of Personnel 2-4

Protection booming of culvert. Be aware of shallow water and underwater obstructions when approaching culvert. Secondary boom may be necessary depending on wind, tide, and current conditions.



29. Prepared By:	30. Reviewed by (PSC)	31. Reviewed by (OSC):
Assignment List	ICS 204 OS (Geographic Response Plan)	Project Updated:
"Response strategies may need to be modified to account for changes due to seasonality, weather conditions, spill characteristics, tides and any other considerations."		