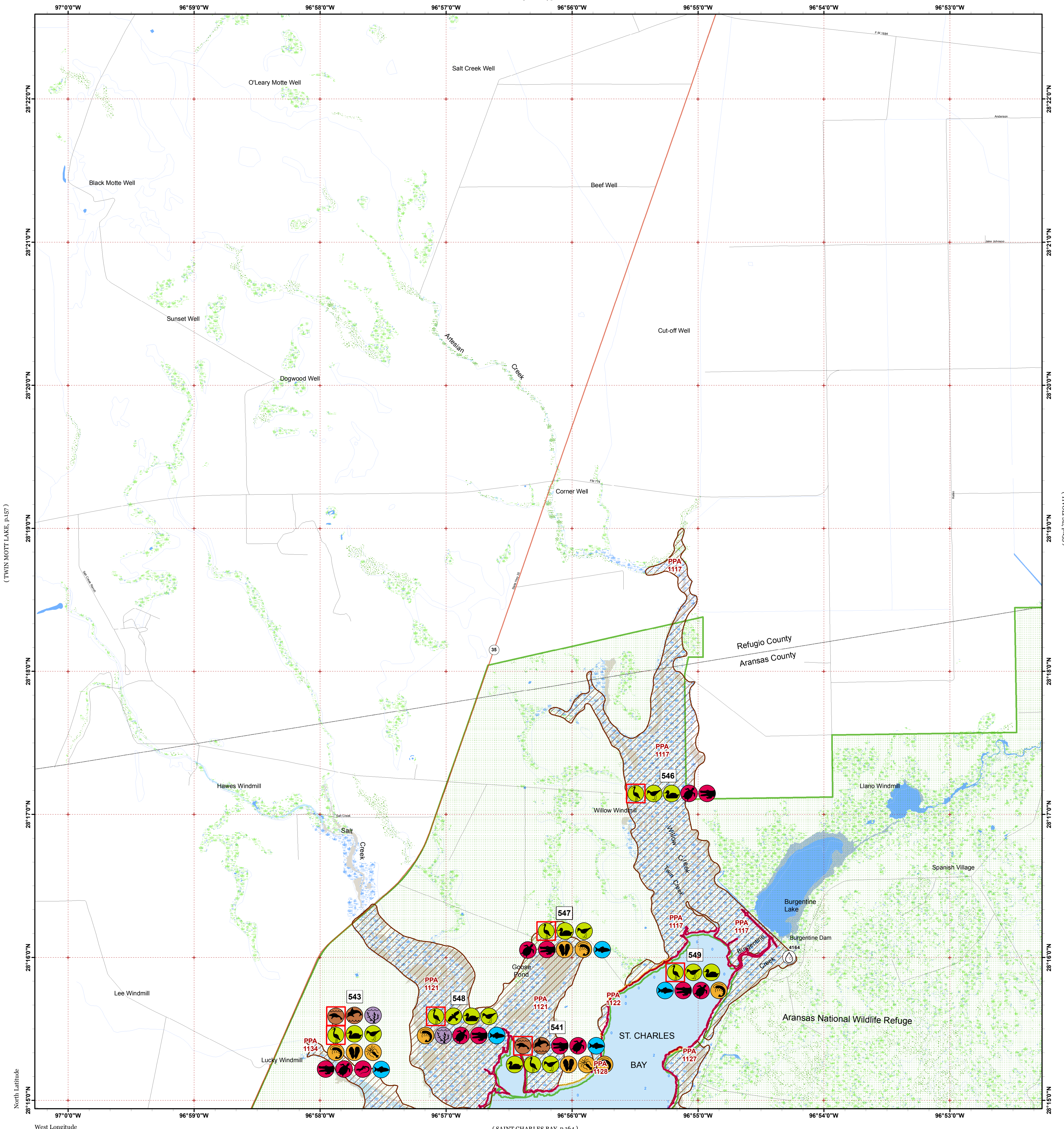


TIVOLI SW

(TIVOLI, p.149)

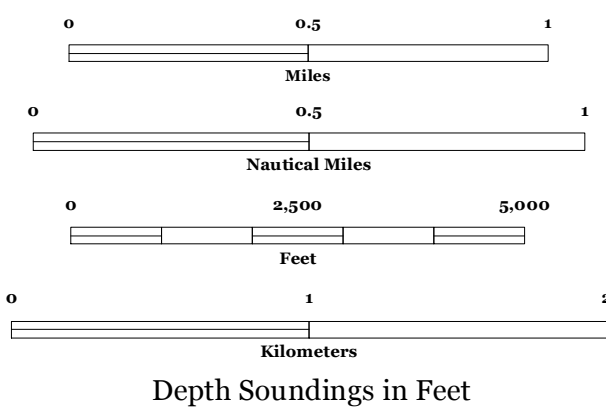
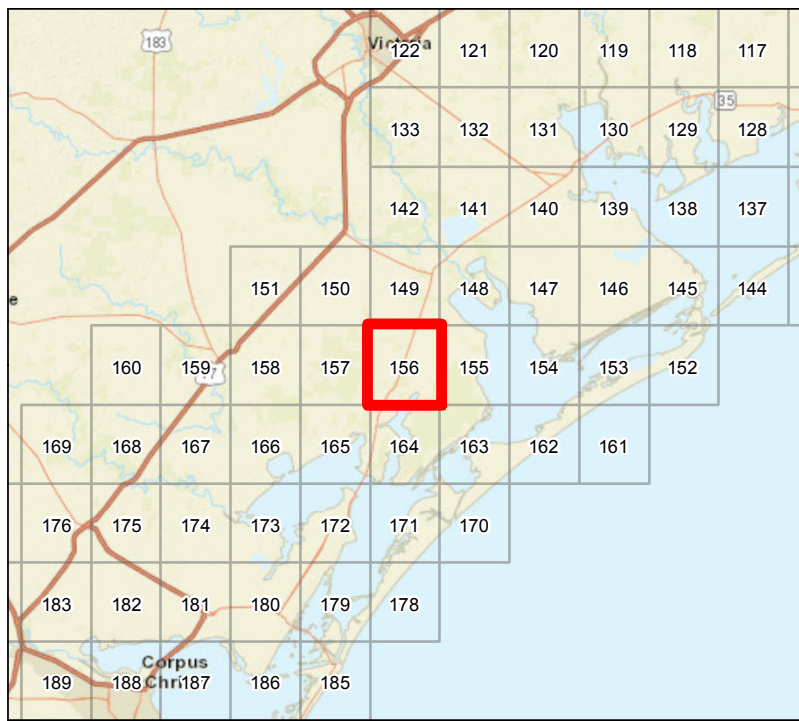
Click Here or Scroll Down for Associated Map Data

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



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



Map Base Layers

- State Highway
- Road
- Wildlife Refuge
- Bays
- Salt and Brackish Marshes
- Beach or Tidal Flat
- Exposed Lake Shore
- Freshwater Marshes
- Swamps and Flooded Woodlands
- Willow Thickets
- Lake / Pond
- Tidally Influenced River
- County Boundary

Priority Protection Areas



Species Icons Within Map Quad

- Alligator
- Dolphin
- Reptile
- Mammal T/E
- Turtle
- Marsh
- Shrimp
- Raptor
- Cephalopod
- Shorebird
- Fish
- Wading
- Fish T/E
- 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 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: TIVOLI SW

Map # :156

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 |
|---------|----------|--|------------|---|---|-----------|------------|--|
| PPA1117 | HIGH | Marsh areas around St. Charles Bay south to Turtle Pen Point | HIGH | Whooping crane feeding area, shorebirds and wading birds, waterfowl, American alligator | Fish and invertebrate nursery, very productive penaeid shrimp area. | HIGH | HIGH | High productivity Spartina alterniflora marsh. |
| PPA1121 | HIGH | Marsh areas around St. Charles Bay south to Turtle Pen Point | HIGH | Whooping crane feeding area, high shorebirds and wading birds. Heavy waterfowl use (geese) at Goose Lake, high shorebird use of adjacent flats. Diamondback terrapin, high American alligator | Fish and invertebrate nursery (especially penaeid shrimp) | HIGH | HIGH | High productivity Spartina alterniflora marsh. |
| PPA1122 | HIGH | Marsh areas around St. Charles Bay south to Turtle Pen Point | HIGH | Whooping crane feeding area, shorebirds and wading birds, waterfowl, American alligator | Fish and invertebrate nursery, very productive penaeid shrimp area. | HIGH | HIGH | High productivity Spartina alterniflora marsh. |
| PPA1127 | HIGH | Marsh areas around St. Charles Bay south to Turtle Pen Point | HIGH | Whooping crane feeding area, shorebirds and wading birds, waterfowl, American alligator | Fish and invertebrate nursery, very productive penaeid shrimp area. | HIGH | HIGH | High productivity Spartina alterniflora marsh. |
| PPA1128 | HIGH | Marsh areas around St. Charles Bay south to Turtle Pen Point | HIGH | Whooping crane feeding area, shorebirds and wading birds, waterfowl, American alligator | Fish and invertebrate nursery, very productive penaeid shrimp area. | HIGH | HIGH | High productivity Spartina alterniflora marsh. |
| PPA1134 | HIGH | Marsh areas around St. Charles Bay south to Turtle Pen Point | HIGH | Whooping crane feeding area, shorebirds and wading birds, waterfowl, American alligator | Fish and invertebrate nursery, very productive penaeid shrimp area. | HIGH | HIGH | 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 |
|--------|------------------------|---|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---------|---------|----------|----------|
| 541 | Migratory songbirds | | | | | | 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 |
| | Waterfowl | | | | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| 543 | Seaside sparrow | C | | | 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 | | | | |
| | 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 | | | | |
| 546 | 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 |
| | Whooping crane | | E | | X | X | X | X | | | | | | X | X | X | | | | |
| | Sandhill crane | | | | X | X | X | X | | | | | X | X | X | X | | | | |
| | Waterfowl | | | | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| 547 | 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 |
| | Whooping crane | | E | | X | X | X | X | | | | | | X | X | X | | | | |
| | Sandhill crane | | | HIGH | X | X | X | X | | | | | X | X | X | X | | | | |
| | Waterfowl | | | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| | Snow goose | | | VERY HIGH | X | X | X | | | | | | X | X | X | X | | | | |
| 548 | Northern harrier | | | | X | X | X | X | X | X | X | X | X | X | X | X | APR-AUG | APR-AUG | APR-AUG | MAY-SEP |
| | Shorebirds | | | VERY HIGH | 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 |
| | 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 |
| | Whooping crane | | E | | X | X | X | X | | | | | | X | X | X | | | | |
| | Sandhill crane | | | | 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 | | | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| | Mottled duck | C | | | X | X | X | X | X | X | X | X | X | X | X | X | JAN-AUG | JAN-AUG | JAN-AUG | FEB-SEP |
| | Snow goose | | | | X | X | X | | | | | | X | X | X | X | | | | |
| | Shorebirds | | | | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| 549 | 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 | | | | |

Fish

| RARNUM | NAME | S | F | CONC | J | F | M | A | M | J | J | A | S | O | N | D | LARV/JUV | SPAWNING |
|--------|-----------------------|---|---|------|---|---|---|---|---|---|---|---|---|---|---|---|----------|----------|
| 541 | 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 |
| | Alligator gar | | | | X | X | X | X | X | X | X | X | X | X | X | X | | APR-MAY |
| 543 | 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 |
| 547 | 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 |

Fish

| RARNUM | NAME | S | F | CONC | J | F | M | A | M | J | J | A | S | O | N | D | LARV/JUV | SPAWNING |
|--------|-----------------------|---|---|------|---|---|---|---|---|---|---|---|---|---|---|---|----------|----------|
| 548 | 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 | | | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | ALLYEAR | DEC-MAY |
| 549 | 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 |
| | Alligator gar | | | | X | X | X | X | X | X | X | X | X | X | X | X | | APR-MAY |
| | Shad | | | | 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 |
|--------|----------------------------------|---|---|------|---|---|---|---|---|---|---|---|---|---|---|---|----------|----------|
| 541 | Eastern oyster | | | HIGH | X | X | X | X | X | X | X | X | X | X | X | X | MAY-JAN | MAR-NOV |
| | Dwarf razor clam | | | | X | X | X | X | X | X | X | X | X | X | X | X | | MAY-NOV |
| | Dwarf surf clam | | | | X | X | X | X | X | X | X | X | X | X | X | X | | MAY-NOV |
| | Brackishwater clam | | | | 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 | | |
| 543 | Lightning whelk | | | | 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 |
| | Quahog (hard clam) | | | | X | X | X | X | X | X | X | X | X | X | X | X | | JUN-DEC |
| | Polychaetes | | | | 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 | | |
| 547 | Eastern oyster | | | | X | X | X | X | X | X | X | X | X | X | X | X | MAY-JAN | MAR-NOV |
| | Quahog (hard clam) | | | | X | X | X | X | X | X | X | X | X | X | X | X | | JUN-DEC |
| | Native shrimp and crab community | | | | X | X | X | X | X | X | X | X | X | X | X | X | | |
| 548 | Native shrimp and crab community | | | | X | X | X | X | X | X | X | X | X | X | X | X | | |
| 549 | 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 |
|--------|---------------------|---|---|------|---|---|---|---|---|---|---|---|---|---|---|---|----------|----------|---------|---------|
| 541 | Bottlenose dolphin | | | | X | X | X | X | X | X | X | X | X | X | X | X | MAR-MAY | JUL-AUG | JAN-DEC | JAN-DEC |
| | West Indian manatee | | E | LOW | | | X | X | X | X | X | X | X | X | X | | | | | |
| 543 | Bottlenose dolphin | | | | X | X | X | X | X | X | X | X | X | X | X | X | MAR-MAY | JUL-AUG | JAN-DEC | JAN-DEC |
| | 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 |
|--------|----------------------------|---|---|------|---|---|---|---|---|---|---|---|---|---|---|---|---------|---------|----------|----------|
| 541 | 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 | |
| 543 | American alligator | | | | X | X | X | X | X | X | X | X | X | X | X | X | JUN-SEP | JUN-DEC | JUN-DEC | ALLYEAR |
| | Texas scarlet snake | | | | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| | 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 | |
| 546 | 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 | |
| 547 | 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 | |
| 548 | 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 | |
| 549 | 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

| Water Intake | RARNUM | NAME | CONTACT | CONTACT INFO |
|--------------|--------|--------------------------------|---------|--------------|
| | 4164 | U S ARANSAS NATL WILDLIFE REFU | | |