

Final Environmental Impact Statement

for the

**Generic Essential Fish Habitat Amendment to the following fishery
management plans of the Gulf of Mexico (GOM):**

**SHRIMP FISHERY OF THE GULF OF MEXICO
RED DRUM FISHERY OF THE GULF OF MEXICO
REEF FISH FISHERY OF THE GULF OF MEXICO
STONE CRAB FISHERY OF THE GULF OF MEXICO
CORAL AND CORAL REEF FISHERY OF THE GULF OF MEXICO
SPINY LOBSTER FISHERY OF THE GULF OF MEXICO AND SOUTH ATLANTIC
COASTAL MIGRATORY PELAGIC RESOURCES OF THE GULF OF MEXICO AND
SOUTH ATLANTIC**



APPENDIX I

DESCRIPTION OF MAPS AND DATA USED IN THE EIS

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**Gulf of Mexico Fishery Management Council
The Commons at Rivergate
3018 U.S. Highway 301 North, Suite 1000
Tampa, Florida 33619-2266**

**Tel: 813-228-2815 (toll-free 888-833-1844), FAX: 813-225-7015
E-mail: gulfcouncil@gulfcouncil.org**

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Introduction

The purpose of this appendix is to describe all the maps in this report. Dataset references are in the final section of this appendix. Maps are broken into four sections: Habitat Maps, Species Maps, Analysis Grid Maps, and Analysis Maps.

Habitat maps

There are three sets of habitat maps created for this report. The first set is a map series showing what is considered estuarine habitat in the Gulf of Mexico to depict the landward boundary of EFH; the second set is a series showing particular habitat types; and the third set shows consolidated habitats across the Gulf. On some of the habitat maps, the EEZ is portrayed incorrectly. This was due to an incorrect dataset and was corrected on most maps. Maps with the incorrect EEZ are noted in each map's description.

Landward boundary of EFH

The landward boundary of EFH for the entire Gulf region was developed by the NOAA/NESDIS/NODC/National Coastal Data Development Center using five National Wetlands Inventory (NWI) data sets, one from each Gulf state, Alabama, Florida, Mississippi, Louisiana, and Texas. The NWI is the result of the Emergency Wetland Resources Act of 1986, which directed the U.S. Fish and Wildlife Service to produce a digital wetlands database for the US. Thus, the NWI program has been collecting, analyzing, digitizing, and archiving wetland data since 1986.

For the inland boundary of EFH, all data that has been identified as marine or estuarine have been captured into one GIS overlay. The areas depicted in the dark gray category, titled intertidal estuary displays only those E2 (intertidal estuary) subsystem. All other E (estuarine), R (riverine), L (lacustrine), and M (marine) categories are displayed in white. Non-marine systems such as U (uplands) and P (palustrine marsh) are in light gray category and would not be considered EFH. Intertidal estuary (E2) is defined as areas where the substrate is exposed and flooded by tides; and includes the associated splash zone.

Coral

Coral is depicted on one map of habitats for South Florida (Fig. 3.2.7) and all maps that show the summarized sediments and bottom habitat types as one overlay. The coral dataset was acquired from FMRI and TNRIS and enhanced by GIS Solutions, Inc to portray coral habitat in Sherwood Forest and Riley's Hump. Sherwood Forest and Riley's Hump were delineated using bathymetric contours provided by FMRI that fell within the Dry Tortugas Ecological Reserve North and South. The shoreline is a gulf wide shoreline from FMRI that contains county boundaries.

Oysters

Oysters are depicted on maps of habitat types for four regions (Texas, Louisiana, Big Bend region of Florida, and From Tampa Bay to Charlotte Harbor, and all maps that show the summarized sediments and bottom habitat types as one overlay. The oyster data were acquired from FMRI and TNRIS. This dataset also combines two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). The shoreline is a gulf wide shoreline from FMRI that contains county boundaries.

Mangroves

Mangroves are depicted on maps of habitat types for four regions (Louisiana, Big Bend region of Florida, from Tampa Bay to Charlotte Harbor, and south Florida) and all maps that show the summarized sediments and bottom habitat types as one overlay. The datasets obtained from FMRI contain large-scale mangrove habitats in Florida. The EEZ is INCORRECTLY represented on this map. This dataset is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). The shoreline is a gulf wide shoreline from FMRI that contains county boundaries.

Marsh

Marshes are depicted on maps of habitat types for four regions (Texas, Louisiana, Big Bend region of Florida, and from Tampa Bay to Charlotte Harbor) and all maps that show the summarized sediments and bottom habitat types as one overlay. The datasets obtained from FMRI are large-scale habitats in Florida. The EEZ is INCORRECTLY represented on this map. This dataset is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). The shoreline is a gulf wide shoreline from FMRI that contains county boundaries.

Seagrass

Seagrasses are depicted on maps of habitat types for five regions (Texas, Louisiana, Big Bend region of Florida, from Tampa Bay to Charlotte Harbor, and south Florida) and all maps that show the summarized sediments and bottom habitat types as one overlay. The datasets were obtained from FMRI and TNRI. These data are large-scale datasets. The EEZ is INCORRECTLY represented on this map. This dataset is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). The shoreline is a gulf wide shoreline from FMRI that contains county boundaries.

Bathymetry

This map shows depth contours within the Gulf of Mexico. The depth contours were acquired from FMRI. The EEZ is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). These EEZ data were edited by GIS Solutions to correctly represent the U.S. EEZ. The corrections were digitized off NOAA Nautical Chart #411. The Intercouncil boundary was generated from Legal Descriptions downloaded from the Federal Register. The shoreline is a gulf wide shoreline that was dissolved to show State boundaries. The original dataset from FMRI contains county boundaries.

Detailed Gulf of Mexico bottom sediments

This map shows detailed bottom sediments for the Gulf of Mexico. These data were obtained from the Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). The EEZ is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). These EEZ data were edited by GIS Solutions to correctly represent the U.S. EEZ. The corrections were digitized off NOAA Nautical Chart #411. The NMFS 21 zones were acquired from the Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). The NMFS 21 Zones were edited to incorporate the estuarine

environment. Each NMFS zone boundary was extended onto land, following the pre-existing direction of the previous boundary. These extensions onto land do not necessarily represent the exact boundaries of the NMFS zones. These boundaries were modified for use within this project only. The Intercouncil boundary was generated from Legal Descriptions downloaded from the Federal Register. The shoreline is a gulf wide shoreline that was dissolved to show State boundaries. Water polygons were deleted from these data prior to dissolving to help represent water in the final mapping process. The original dataset from FMRI contains county boundaries. This map shows an incomplete sediment representation of the Gulf of Mexico. Additional Sediment Data was derived from the Digitization of the NOAA Atlas, however, the Detailed Sediments of the Gulf of Mexico was not incorporated into any of the analysis, and therefore, this dataset was not updated to reflect the new sediment information gathered. Given more time and resources this map and data could be updated to reflect the detailed sediments used to create the final Summarized Gulf of Mexico Sediments and Bottom Habitat Types.

Summarized Gulf of Mexico bottom sediments

This map shows summarized bottom sediments for the Gulf of Mexico. These data were obtained from the Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). The following details the summary:

<u>Original Description</u>	<u>Summarized Description</u>
Clay	Clay
Clayey Sand	Sand
Clayey Silt	Silt
Gravelly Sand	Sand
Hard Banks	Hard Bottom
Sand	Sand
Sand Silt Clay	Clay
Sandy Clay	Clay
Sandy Silt	Silt
Silt	Silt
Silty Clay	Clay
Silty Sand	Sand

Once summarized, these polygons were dissolved to eliminate boundaries between similar sediment types. Additional sediment data was acquired from the NOAA Atlas. Each NOAA Atlas map was incorporated into the GIS database through a significant conversion process that resulted in GIS shapefiles for each sediment. The hardcopy maps were scanned to a high resolution (300dpi) TIFF image. Each digital image underwent a registration process called geo-rectification. This process associates several locations on the image to known coordinates in the GIS. Geo-rectification allows an image to be displayed within a GIS environment in its correct geographic position (e.g. the shoreline of the image aligns with the shoreline in the GIS). Once georectified, the polygonal data were digitized from the images to create digital sediment data for each species. The digitized polygons were converted to GIS layers (ESRI Shapefiles) and incorporated into the GIS for further analysis. The bottom sediments shapefile from the NOAA Atlas provided delineated sediment information to fill gaps in Sheridan and Caldwell sediment data. NOAA Atlas sediment data provided polygons within the EEZ and in the

estuarine environment. This provided the team with complete sediment coverage across the Gulf of Mexico. Sediment polygons from both shapefiles were incorporated into one shapefile and the boundaries between similar sediment types were dissolved. The EEZ is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). These EEZ data were edited by GIS Solutions to correctly represent the U.S. EEZ. The corrections were digitized off NOAA Nautical Chart #411. The NMFS 21 zones were acquired from the Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). The NMFS 21 Zones were edited to incorporate the estuarine environment. Each NMFS zone boundary was extended onto land, following the pre-existing direction of the previous boundary. These extensions onto land do not necessarily represent the exact boundaries of the NMFS zones. These boundaries were modified for use within this project only. The Intercouncil boundary was generated from Legal Descriptions downloaded from the Federal Register. The shoreline is a gulf wide shoreline that was dissolved to show State boundaries. Water polygons were deleted from these data prior to dissolving to help represent water in the final mapping process. The original dataset from FMRI contains county boundaries.

Summarized Gulf of Mexico sediments and bottom habitat types

This maps shows habitat information for the Gulf of Mexico. All habitat datasets were incorporated to produce one habitat dataset for the entire Gulf. The following data were used to create these data: Seagrass from FMRI and TNRIS, Marshes from FMRI and USGS, Mangroves from FMRI, Oysters from FMRI and TNRIS, Coral from FMRI, Coral from the NOAA Atlas, and Summarized Sediments detailed in map 1.1.10 (above). Each dataset was converted to an Arc Info Coverage and projected into Albers NAD83. A square coverage was created that encompassed all habitat data. This square served as the base for the consolidated habitat coverage. The base and summarized sediment coverage were intersected to form one dataset. A new attribute was created called *TYPE*. This would be used as the master habitat type field for these data. The *TYPE* attribute was calculated from the existing re-classed sediment field. For each habitat type (Marsh, Mangroves, Seagrass, Oysters, and Coral), all datasets collected of that type were merged into one dataset. Each habitat dataset was then dissolved. The erase command was used for the following datasets: Marsh, Mangroves, Seagrass, Oysters, and Coral. The working coverage was erased by each habitat coverage resulting in holes where the habitat exists. The habitat coverage and the working coverage were then merged to produce one dataset. The *TYPE* attribute was then updated to reflect the appropriate habitat type. This process was repeated for the remaining habitat types. This resulted in 100% coverage of the Gulf of Mexico, including bays and estuaries. Manual adjustment to habitat data occurred to more accurately describe the actual environment within the Gulf of Mexico. Sediment and Habitat data from the afore mentioned sources were sometimes incomplete or inaccurate and therefore required adjustment. The hard bottom polygons within the Flower Gardens from the Sheridan and Caldwell sediments were recoded as coral. The hard bottom sediment polygon within Tampa Bay from the NOAA Atlas was recoded as sand. The coral patch west of the Tortugas from the NOAA Atlas was recoded as hard bottom. The large hard bottom polygon off the West Florida coast was determined to be more accurate in the NOAA Atlas than in the Sheridan and Caldwell sediments and therefore replaced the sediment in that area. Coral habitat within the Dry Tortugas Ecological Reserve was missing from all datasets and was delineated using bathymetry from FMRI to represent Sherwood Forest and Riley's Hump. The NMFS 21 zones were acquired from the Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). The

NMFS 21 Zones were edited to incorporate the estuarine environment. Each NMFS zone boundary was extended onto land, following the pre-existing direction of the previous boundary. These extensions onto land do not necessarily represent the exact boundaries of the NMFS zones. These boundaries were modified for use within this project only. The EEZ is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). These EEZ data were edited by GIS Solutions to correctly represent the U.S. EEZ. The corrections were digitized off NOAA Nautical Chart #411. The Intercouncil boundary was generated from Legal Descriptions downloaded from the Federal Register. The shoreline is a gulf wide shoreline that was dissolved to show State boundaries. Water polygons were deleted from these data prior to dissolving to help represent water in the final mapping process. The original dataset from FMRI contains county boundaries.

Analysis Grids

These analysis grid maps show the variations of grids used in different analysis for this report. Each grid is a variation on grids acquired from the Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). The NMFS 21 Zones and the NMFS 21 Zones with 5-fathom contours were taken directly from the Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). The 10 Fathom Grid and the Non-Fishing Grid originated from the 5 Fathom Grid and were modified for use within this project. In each case, the zones were edited to incorporate the estuarine environment. Each NMFS zone boundary was extended onto land, following the pre-existing direction of the previous boundary. These extensions onto land do not necessarily represent the exact boundaries of the NMFS zones. These boundaries were modified for use within this project only.

NMFS Fisheries Statistical Grid

This map shows the 21 NMFS Statistical Zones used for analysis within this project. These data were acquired from Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). Grid cells 11, 12, and 13 were modified from the original dataset to accurately portrait the region. The EEZ is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). These EEZ data were edited by GIS Solutions to correctly represent the U.S. EEZ. The corrections were digitized off NOAA Nautical Chart #411. The Intercouncil boundary was generated from Legal Descriptions downloaded from the Federal Register. The shoreline is a gulf wide shoreline that was dissolved to show State boundaries. Water polygons were deleted from these data prior to dissolving to help represent water in the final mapping process. The original dataset from FMRI contains county boundaries.

NMFS Fisheries Statistical Grid with 10 fathom contours

This map shows the 21 NMFS Statistical Zones with 10 Fathom Contours used for analysis within this project. These data were acquired from Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). Dissolving the 5-fathom contours from the original dataset created the 10-fathom contours. Several sliver polygons remained from this process. These slivers were removed from the final grid. Grid cells 11, 12, and 13 were modified from the original dataset to accurately portrait the region. The EEZ is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). These EEZ data were edited by GIS Solutions to correctly represent the U.S. EEZ. The

corrections were digitized off NOAA Nautical Chart #411. The Intercouncil boundary was generated from Legal Descriptions downloaded from the Federal Register. The shoreline is a gulf wide shoreline that was dissolved to show State boundaries. Water polygons were deleted from these data prior to dissolving to help represent water in the final mapping process. The original dataset from FMRI contains county boundaries.

NMFS Fisheries Statistical Grid with 5 fathom contours

This map shows the 21 NMFS Statistical Zones with 5 fathom contours used for analysis within this project. These data were acquired from Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). Grid cells 11, 12, and 13 were modified from the original dataset to accurately portrait the region. The EEZ is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). These EEZ data were edited by GIS Solutions to correctly represent the U.S. EEZ. The corrections were digitized off NOAA Nautical Chart #411. The Intercouncil boundary was generated from Legal Descriptions downloaded from the Federal Register. The shoreline is a gulf wide shoreline that was dissolved to show State boundaries. Water polygons were deleted from these data prior to dissolving to help represent water in the final mapping process. The original dataset from FMRI contains county boundaries.

Non-Fishing threats grid

This map shows the 21 NMFS Statistical Zones with the 60-foot contour used for analysis within this project. These data were acquired from Sheridan and Caldwell GOM Dataset CD-ROM (Pre-release Version). Dissolving the 5-fathom contour and contours greater than 10 fathoms from the original dataset created the 60-foot contour. Several sliver polygons remained from this process. These slivers were removed from the final grid. Grid cells 11, 12, and 13 were modified from the original dataset to accurately portrait the region. The EEZ is a combination of two EEZ datasets, one from the Florida Marine Research Institute (FMRI), and one from Minerals Management Service (MMS). These EEZ data were edited by GIS Solutions to correctly represent the U.S. EEZ. The corrections were digitized off NOAA Nautical Chart #411. The Intercouncil boundary was generated from Legal Descriptions downloaded from the Federal Register. The shoreline is a gulf wide shoreline that was dissolved to show State boundaries. Water polygons were deleted from these data prior to dissolving to help represent water in the final mapping process. The original dataset from FMRI contains county boundaries.

Closed area maps

These maps show Closed Areas within the Gulf of Mexico. These data were collected from a variety of sources outlined in the data source table. Most boundaries were created using Arc Info from points acquired from the Federal Register, 50CFR Part600.105 & 622.34 .

Man made structures

Oil and gas structures

Point location for oil and gas installations in federal waters of the Gulf of Mexico are presented. These layers were modified from GIS data acquired from LSU, but originally come from the Minerals Management Service (MMS). It should be noted that platforms are being added and removed continuously, thus regular updates of this data base are required to know the true

distribution of platforms. Although file description reports are available, no FGDC-compliant metadata are available for the original files from MMS.

Oil and gas pipelines

A line file representing locations of the pipeline infrastructure in the Gulf of Mexico associated with the oil and gas industry is presented. These layers were modified from GIS data acquired from the Sheridan and Caldwell GOM Dataset CD-ROM. It originated from the U. S. Department of the Interior Minerals Management Service (MMS) website. Pipelines are being added or modified continuously, thus regular updates of this database are required to know the true distribution of pipelines. Although file description reports are available, no FGDC-compliant metadata are available for the original files from MMS.

Analysis Maps

Each analysis map contains the results of analysis performed during this study. Each analysis uses one of the analysis grids outlined in section 1.3. The grids used will be referred to, but not described in this section. All basemap layers will be referred to, but not described in this section.

Shrimp Trawl Effort

This map was generated from analysis using the NMFS Statistical Zones with 10 Fathom Contours and NOAA/NMFS – Galveston, Shrimp Trawl data. The shrimp trawl database was summarized using Microsoft SQL-Server. Days fished were summed for all records within the same statistical zone, depth regime, and year. These values were then averaged across years from 2000-2001. These values were then joined to the NMSF Statistical Grid with 10 Fathom Contours for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Florida Middle Grounds, Tortugas North, Tortugas South, Dry Tortugas National Park, Southwest Florida Seasonal Trawl Closure, Tortugas Shrimp Sanctuary, Flower Gardens, Steamboat Lumps, Madison Swanson, and Texas Closure. With the exception of the Flower Gardens, each closure area was generated from Legal Descriptions downloaded from the Federal Register. The Flower Gardens were acquired from TNRS. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Reef Fish Bottom Longline Fishing Effort

This map was generated from analysis using NMFS Statistical Zones and Logbook database from Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of L (Longline). These records were separated into reef fish and sharks based upon species type. A latitude/longitude table was created to relate Lat/Long Coordinates to NMFS Zones. This table was joined to the input data to assign NMFS Zones to records with Lat/Long Coordinates. Unique Schedule IDs were selected from the input table. The Reef Fish Longline database was summarized using Microsoft SQL-Server. Number of Sets per Trip were multiplied by length of line for that trip, and then summed for all records within the same statistical zone and year. These values were then averaged across years from 2000-2001 and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Florida Middle Grounds, Tortugas North, Tortugas South, Dry Tortugas National Park,

Flower Gardens, Steamboat Lumps, Madison Swanson, and Longline Buoy Gear Restricted Area. With the exception of the Flower Gardens, each closure area was generated from Legal Descriptions downloaded from the Federal Register. The Flower Gardens were acquired from TNRIIS. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Shark Bottom Longline Fishing Effort

This map was generated from analysis using NMFS Statistical Zones and Logbook database from Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of L (Longline). These records were separated into reef fish and sharks based upon species type. A latitude/longitude table was created to relate Lat/Long Coordinates to NMFS Zones. This table was joined to the input data to assign NMFS Zones to records with Lat/Long Coordinates. Unique Schedule IDs were selected from the input table. The Shark Longline database was summarized using Microsoft SQL-Server. Number of Sets per Trip were multiplied by length of line for that trip, and then summed for all records within the same statistical zone and year. These values were then averaged across years from 2000-2001 and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Florida Middle Grounds, Tortugas North, Tortugas South, Dry Tortugas National Park, Flower Gardens, Steamboat Lumps, Madison Swanson, and Longline Buoy Gear Restricted Area. With the exception of the Flower Gardens, each closure area was generated from Legal Descriptions downloaded from the Federal Register. The Flower Gardens were acquired from TNRIIS. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Coastal Pelagic Bottom Handline Fishing Effort

This map was generated from analysis using NMFS Statistical Zones and Logbook database from Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of H (Handline). These records were separated into reef fish and coastal pelagic based upon species type. A latitude/longitude table was created to relate Lat/Long Coordinates to NMFS Zones. This table was joined to the input data to assign NMFS Zones to records with Lat/Long Coordinates. Unique Schedule IDs were selected from the input table. The Coastal Pelagic Handline database was summarized using Microsoft SQL-Server. Number lines per Trip were multiplied by time fished, then summed for all records within the same statistical zone and year. These values were then averaged across years from 2000-2001 and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Tortugas North, Tortugas South, Dry Tortugas National Park, Steamboat Lumps, and Madison Swanson. Each closure area was generated from Legal Descriptions downloaded from the Federal Register. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Reef Fish Handline Fishing Effort

This map was generated from analysis using NMFS Statistical Zones and Logbook database from Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of H (Handline). These records were separated into reef fish

and coastal pelagic based upon species type. A latitude/longitude table was created to relate Lat/Long Coordinates to NMFS Zones. This table was joined to the input data to assign NMFS Zones to records with Lat/Long Coordinates. Unique Schedule IDs were selected from the input table. The Reef Fish Handline database was summarized using Microsoft SQL-Server. Number lines per Trip were multiplied by time fished, then summed for all records within the same statistical zone and year. These values were then averaged across years from 2000-2001 and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Tortugas North, Tortugas South, Dry Tortugas National Park, Steamboat Lumps, and Madison Swanson. Each closure area was generated from Legal Descriptions downloaded from the Federal Register. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Spear Fishing Effort

This map was generated from analysis using NMFS Statistical Zones and Logbook database from Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of S (Spears). A latitude/longitude table was created to relate Lat/Long Coordinates to NMFS Zones. This table was joined to the input data to assign NMFS Zones to records with Lat/Long Coordinates. Unique Schedule IDs were selected from the input table. The Spears database was summarized using Microsoft SQL-Server. The Number Divers per Trip were multiplied by time fished, then summed for all records within the same statistical zone and year. These values were then averaged across years from 2000-2001 and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Tortugas North, Tortugas South, Dry Tortugas National Park, Steamboat Lumps, and Madison Swanson. Each closure area was generated from Legal Descriptions downloaded from the Federal Register. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Powerhead Fishing Effort

This map was generated from analysis using NMFS Statistical Zones and Logbook database from Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of P (Powerhead). A latitude/ longitude table was created to relate Lat/Long Coordinates to NMFS Zones. This table was joined to the input data to assign NMFS Zones to records with Lat/Long Coordinates. Unique Schedule IDs were selected from the input table. The Powerhead database was summarized using Microsoft SQL-Server. The Number of Divers per Trip was multiplied by time fished, then summed for all records within the same statistical zone and year. These values were then averaged across years from 2000-2001 and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Tortugas North, Tortugas South, Dry Tortugas National Park, Steamboat Lumps, and Madison Swanson. Each closure area was generated from Legal Descriptions downloaded from the Federal Register. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Lobster Trap Fishing Effort

This map was generated from analysis using NMFS Statistical Zones with 5 Fathom Contours and The Florida Trip Ticket Database from FMRI and Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of 355 in years 2000, and 2001. The Lobster database was summarized using Microsoft SQL-Server. The Number of Traps per Trip was summed for all records within the same statistical zone, depth zone, and year. The Florida Trip Ticket Database uses a slightly different reporting zone than the NMFS zone and therefore a conversion took place to match the two reporting zones. The values were then averaged and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Florida Middle Grounds, Tortugas North, Tortugas South, Dry Tortugas National Park, Steamboat Lumps, and Madison Swanson. Each closure area was generated from Legal Descriptions downloaded from the Federal Register. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Stone Crab Trap Fishing Effort

This map was generated from analysis using NMFS Statistical Zones with 5 Fathom Contours and The Florida Trip Ticket Database from FMRI and Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of 333 in years 2000-2001. The Stone Crab database was summarized using Microsoft SQL-Server. The Number of Traps per Trip was summed for all records within the same statistical zone, depth zone, and year. The Florida Trip Ticket Database uses a slightly different reporting zone than the NMFS zone and therefore a conversion took place to match the two reporting zones. The values were then averaged and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Florida Middle Grounds, Tortugas North, Tortugas South, Dry Tortugas National Park, Steamboat Lumps, and Madison Swanson. Each closure area was generated from Legal Descriptions downloaded from the Federal Register. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Fish Trap Fishing Effort

This map was generated from analysis using NMFS Statistical Zones and Logbook database from Southeast Fisheries Science Center, Miami Laboratory. A new dataset was created by extracting records with a gear type of T (Traps). A latitude/longitude table was created to relate Lat/Long Coordinates to NMFS Zones. This table was joined to the input data to assign NMFS Zones to records with Lat/Long Coordinates. Unique Schedule IDs were selected from the input table. The Traps database was summarized using Microsoft SQL-Server. The Number of Hauls per Trip was summed for all records within the same statistical zone and year. These values were then averaged across years from 2000-2001 and joined to the NMSF Statistical Grid for mapping. The averaged values were broken into 10 equal intervals for display purposes. The following closure areas are represented on this map: Florida Middle Grounds, Tortugas North, Tortugas South, Dry Tortugas National Park, Reef Fish Stressed Area, Flower Gardens, Steamboat Lumps, and Madison Swanson. With the exception of the Flower Gardens, each closure area was generated from Legal Descriptions downloaded from the Federal Register. The

Flower Gardens were acquired from TNRIS. Also represented on this map are U.S. EEZ, the Intercouncil Boundary, Summarized Gulf of Mexico Sediments and Bottom Habitat Types, and the Shoreline.

Recreational Fishing Effort Maps

These maps show Recreational Fishing Effort within the Gulf of Mexico. To create these data a grid was created using the Estuarine/Nearshore line and the State waters line. These two lines were then intersected with state boundaries that were extended out through the EEZ following the natural trend line from the land. Effort values were then assigned to each zone for Recreational Fishing.

Index for Fishing Impacts (5)

These maps show the Fishing Impacts Index within the Gulf of Mexico. The input data for this analysis are the 10 Fishing Gear Effort (Maps 1.3.1 - 1.3.10) datasets and the Gulf of Mexico Summarized Sediments and Bottom Habitat Types. The base dataset was the NMFS Statistical Grid with 5 Fathom Contours. Each Fishing Gear Effort dataset was intersected to the 5 Fathom Grid. This assigned each gear effort value to the appropriate Statistical Zone and Depth Regime. A fishing sensitivity table was joined to the habitat polygons based upon depth regime and habitat type. The habitat polygons were intersected with the 5 Fathom grid. This resulted in habitat polygons with each gear effort value, depth regime, statistical zone, and sensitivity value. The gear effort values were multiplied by the gear sensitivity value for that habitat. All values were then divided by the area of the statistical area to create the impact index value for each gear type. For each gear type, the Fishing Impact Index was mapped using 10 Natural Break (Jenks) intervals. The Impacts table was altered to create impact scores for habitats in the GIS that were not scored in the impacts table. The following were the habitats needing edits: Nearshore Marsh and Nearshore Oysters. These habitat sensitivities were calculated to the Estuarine values for the appropriate habitats.

Index for Fishing Sensitivity

These maps show the Fishing Sensitivity Index within the Gulf of Mexico. The input data for this analysis are the Gulf of Mexico Summarized Sediments and Bottom Habitat Types and Habitat Sensitivity Values for each fishing gear. A relational item was created in each table to join the sensitivity of each gear type to the appropriate habitat type in the GIS. Once joined, the habitat sensitivity values were summed creating a sensitivity score that was mapped using 10 Natural Break (Jenks) intervals. The sensitivity table was altered to create sensitivity scores for habitats in the GIS that were not scored in the sensitivity table. The following were the habitats needing edits: Nearshore Marsh and Nearshore Oysters. These habitat sensitivities were calculated to the Estuarine values for the appropriate habitats.

Index for Non-Fishing Impacts (5)

These maps show the Index of Non-Fishing Impacts on habitat within the Gulf of Mexico. This analysis uses the Non-Fishing Context Grid and the datasets on Intensity. The Non-Fishing Context Grid was intersected with each input Intensity dataset to assign Depth Regime and Statistical Zone. Each input dataset was summarized by Depth Regime and Statistical Zone: Point features were summed, Line features were calculated to total linear miles, and Polygon features were calculated to total area in acres. These summaries occurred for each Non-Fishing

Sensitivity category. The summarized numbers were used in the Non-Fishing analysis. After calculations, a total Impact value was created for each Depth Regime, Statistical Zone, and Habitat Type. The Summarized Gulf of Mexico Sediments and Bottom Habitat Types were intersected by the Non-Fishing Threats Grid. This assigned all habitat polygons with Depth Regime and Statistical Zone. The Non-Fish Analysis values table was joined to the habitat polygons and mapped. For each depth regime and unit, the Non-Fishing Impact Value was mapped using 10 Natural Break (Jenks) intervals. The impacts table was altered to create impact scores for habitats in the GIS that were not scored in the impact table. The following were the habitats needing edits: Nearshore Marsh and Nearshore Oysters. These habitat impacts were calculated to the Estuarine values for the appropriate habitats.

Non-Fishing Threat Categories

- Dredge and Fill
- Shoreline Modification
- Thermal and Impingement
- Structural Shading
- Boating
- Freshwater Inflow
- Point Source Pollution
- Non-Point Source Pollution
- Oil/Gas Operations
- Industrial Spills
- Toxic Release
- Eutrophication
- Hypoxia
- Harmful Bloom

Non-Fishing Threat Input Datasets

The following datasets were used as input datasets for the Non-Fishing Threats Analysis.

- Harmful Algal Bloom Sample Points – Harmful Bloom – FMRI
- ESI Boating Points – Boating – FMRI/TNRIS/MMS/USGS
- Fairways – Boating – NOAA/NMFS/MMS
- Florida Seagrass Scars – Boating – FMRI
- Texas Marinas – Boating – TNRIS
- Florida Marine Facilities – Boating – FMRI
- Dredged Shipping Channels – Boating – TNRIS
- Buccaneer Pipeline – Oil/Gas Operations – FMRI
- Oil Platforms - Oil/Gas Operations – LSU/TNRIS
- Pipelines - Oil/Gas Operations – NOAA/NMFS/USGS
- Southeast Beach Renourishment – Dredge/Fill – USGS
- Aids to Navigation – Dredge/Fill – FMRI
- Chlorophyll Points – Eutrophic – NOAA/NODC/OCL
- Eutrophic Point Source – Eutrophic – NOAA/CADS
- Dams – Fresh Water Inflow - USGS
- Hypoxia – Hypoxia – NOAA/NMFS
- Thermal Point Source – Thermal/Impingement - NOAA/CADS

Point Source Pollution – Point Source - NOAA/CADS
 Agricultural Landuse – Non-Point Source - NOAA/CADS
 Urban Landuse – Non-Point Source - NOAA/CADS
 Manmade ESI Shoreline – Shoreline Modification – FMRI/TNRIS/MMS/USGS
 Toxic Point Source – Toxic Release - NOAA/CADS

Index for Non-Fishing Sensitivity

These maps show the Index of Non-Fishing Sensitivity of habitat within the Gulf of Mexico. This analysis uses the Gulf of Mexico Summarized Sediments and Bottom Habitat Types and Habitat Non-Fishing Sensitivity Values for each habitat type. A relational item was created in each table to join the sensitivity of each habitat to the appropriate habitat type in the GIS. Once joined, the habitat sensitivity values were summed creating a sensitivity score that was mapped using 10 Natural Break (Jenks) intervals. The sensitivity table was altered to create sensitivity scores for habitats in the GIS that were not scored in the sensitivity table. The following were the habitats needing edits: Nearshore Marsh and Nearshore Oysters. These habitat sensitivities were calculated to the Estuarine values for the appropriate habitats.

Habitat Use Maps

These maps show Habitat Use within the Gulf of Mexico. The input data for this analysis was Summarized Gulf of Mexico Sediments and Habitat Types, Subzones, and Eco-Region Boundaries. The habitat data was unioned with the Eco-Region boundaries and Subzones to create habitat types with Eco-Regions and Subzones. A relate item was created to establish a link between the Habitat Use table and the Habitat based upon type, eco-region, and subzone. Each habitat was then given the appropriate score for each species and lifestage. The habitat use values were aggregated by FMP and plotted using 10 Natural Break (Jenks) intervals.

Habitat Rarity (6)

These maps show the Habitat Rarity Index for habitat within the Gulf of Mexico. The input data for this analysis were the Gulf of Mexico Summarized Sediments and Bottom Habitat Types and the NMFS Statistical Grid with 10 Fathom Contours. First the contours in the NMFS Statistical Grid were merged to form two regimes: Estuarine and Nearshore (>10 Fathoms). The NMFS Statistical Grid was then merged into five Units based upon the following:

South Florida	Florida Keys to Tarpon Springs	1-5
North Florida	Tarpon Springs to Mobile Bay	6-9
East Louisiana, Mississippi and Alabama	Mobile Bay to the Mississippi Delta	10-12
East Texas and west Louisiana	Mississippi Delta to Freeport	13-18
West Texas	Freeport to the Mexico border	19-21

This working grid was then intersected with the habitat dataset. This process yielded the depth regime and unit number for each habitat polygon. The area for each habitat polygon was calculated. The areas were then summed for each polygon within depth regime and unit. This created a total area for each depth regime and unit. For each habitat polygon, the distance to it's nearest neighbor within the same unit and depth regime was calculated. This distance was averaged over all habitat polygons within the same depth regime and unit. This resulted in one distance value for each habitat type for each depth regime for each unit. This distance was

multiplied by the total area of the depth regime within a unit, divided by the total area of the habitat within a depth regime and unit. This resulted in the Habitat Rarity Value for that habitat. For each depth regime and unit, the Habitat Rarity Value was mapped using 10 Natural Break (Jenks) intervals.

EFH Alternative 4 and 5 Maps

These maps show EFH Alternatives 4 and 5 within the Gulf of Mexico. The input data for this analysis was Digitized NOAA Atlas maps and the results from the Functional Relationship Analysis. Each NOAA Atlas map was incorporated into the GIS database through a significant conversion process that resulted in GIS shapefiles for each species. The hardcopy maps were scanned to a high resolution (300dpi) TIFF image. Each digital image underwent a registration process called geo-rectification. This process associates several locations on the image to known coordinates in the GIS. Geo-rectification allows an image to be displayed within a GIS environment in its correct geographic position (e.g. the shoreline of the image aligns with the shoreline in the GIS). Once georectified, the polygonal data were digitized from the images to create digital distribution and density data for each species. The digitized polygons were converted to GIS layers (ESRI Shapefiles) and incorporated into the GIS for further analysis.

The GIS shapefiles from the NOAA Atlas were used to delineate polygons for each FMP of EFH Alternative 4. To satisfy EFH Alternative 4, all digitized distribution polygons from the NOAA Atlas were overlaid and the appropriate species and lifestages were selected by FMP to represent EFH. The selected distribution polygons were unioned into one seamless boundary representing EFH Alternative 4 for all species and lifestages within the NOAA Atlas. Species and lifestages not represented by the NOAA Atlas were accounted for by utilizing the results from the Functional Relationship analysis. The Functional Relationship distribution polygons were overlaid with the distribution from the NOAA Atlas and the polygons were unioned to create a seamless EFH Alternative 4 boundary for each FMP. Each EFH Alternative 4 boundary was clipped south of the EEZ along the Texas/Mexico boarder and south of the GOM/ATL Fisheries Management Council boundary along the Florida Keys. An adjustment was made for two lakes in southwest Louisiana, Grand Lake and White Lake. These lakes were initially mis-identified as estuarine, but were later re-classified as non-estuarine, based on NWI data. Thus, they are not considered part of the EFH for Alternative 4 for red drum, reef fish, coastal migratory pelagics, and stone crab.

The GIS shapefiles from the NOAA Atlas were also used in the delineation of EFH Alternative 5 polygons for each FMP. To satisfy EFH Alternative 5, all digitized density polygons from the NOAA Atlas were overlaid and the appropriate species and lifestages were selected by FMP to represent EFH Alternative 5. The selected density polygons were unioned into one seamless boundary representing EFH Alternative 5 for all species and lifestages within the FMP. Each EFH Alternative 5 boundary was clipped south of the EEZ along the Texas/Mexico border and south of the GOM/ATL Fisheries Management Council boundary along the Florida Keys.

EFH Alternative 6 Maps

These maps show EFH Alternative 6 within the Gulf of Mexico. The input data for this analysis was the results from the Functional Relationship Analysis. The Functional Relationship Analysis was an analysis selecting habitat polygons that fit within the criteria identified that each

species and lifestage utilizes in growth to maturity. The input parameters included: Habitat Type, Depth, Eco-Region, Subzone, and Density. Each habitat polygon was selected or not selected based upon each variable. EFH Alternative 6 maps are higher density polygons selected from the Functional Relationship Analysis from species and lifestages in which no density information was available from the NOAA Atlas (i.e. if species and lifestage density was represented by a map in the NOAA Atlas, that species and lifestage was not incorporated into the Alternative 6 mapping). All selected EFH Alternative 6 polygons for each FMP were merged to create a seamless Gulf wide dataset that represented EFH for Alternative 6. Each EFH Alternative 6 boundary was clipped south of the EEZ along the Texas/Mexico boarder and south of the GOM/ATL Fisheries Management Council boundary along the Florida Keys. An adjustment was made for two lakes in southwest Louisiana, Grand Lake and White Lake. These lakes were initially mis-identified as estuarine, but were later re-classified as non-estuarine, based on NWI data. Thus, they are not considered part of the EFH for Alternative 6 for red drum, reef fish, coastal migratory pelagics, shrimp and stone crab.

HAPC Alternative 3 Maps

These maps show HAPC Alternative 3 within the Gulf of Mexico. The input data for these maps were managed area boundaries acquired from NOAA. No analysis or alterations were performed in the creation of these maps.

HAPC Alternative 4 Map

This map represents potential spawning sites that could be considered under HAPC Alternative 4 within the Gulf of Mexico. This map was presented in the “Regulatory Amendment to the Reef Fish Management Plan to set 1999 gag/ black grouper Management Measures”, as Figure 9. No analysis or alterations were performed on the original map.

HAPC Alternative 8 Maps

These maps show HAPC Alternative 8 Candidate Sites within the Gulf of Mexico for the four considerations in the EFH Final Rule. These habitat areas are polygons depicting candidate sites resulting from the analyses of habitat sensitivity, habitat stress and habitat rarity. These polygons are habitat polygons from the Summarized Sediments and Bottom Habitat Types that were used in these analyses and which were selected to form the HAPC Alternative 8 Candidate Sites.

HAPC Alternative 9 Map

This maps shows HAPC Alternative 9 (Preferred Alternative) for the Gulf of Mexico. There are six distinct areas identified as polygons and are generated from the existing closed area map and data from the USGS (Dr. Robert Halley, pers.comm.) for a site known as Pulley Ridge. Additionally, the data for the eight identified reefs and banks of the Northwestern Gulf of Mexico presented in an inset map was provided by the USGS and the Flower Garden Banks National Marine Sanctuary.

Sources of Data

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
Physical factors	Gulfatlar_bathy_poly	Deepwater bathy for region	Gulf of Mexico, Caribbean	Shapefile	varying	1998	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Physical factors	Gulfmex_arc	Bathy contours for NOAA chart 411/GOM	Gulf wide	Shapefile	1:2,160,000	1997	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Habitat	Artreef_dep_point	Uniquely located artificial reef or deployments of same reef on different day	Statewide - Florida	Shapefile		1999	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Habitat	Coralcov_96_point	Stony coral composition & % cover values for stony corals, octocorals, sponges, zooanthids, macroalgae, seagrass & substrate	Florida Keys	Shapefile		1996	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Habitat	Coralplat_poly	FKNMS benthic dataset: CPSS: coral platform, spur & groove, shallow CPSD: coral platform, spur & groove, drowned CPR: coral	Florida Keys	Shapefile		1992	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
		platform, remnant CB: coral back reef CR: coral reef rubble										
Habitat	coralptch_92_poly	Depicts coral patch reef areas	Florida Keys National Marine Sanctuary (FKNMS)	Shapefile	1:48,000	1992	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Habitat	fl_sgrass	Statewide seagrass coverage	Statewide - Florida	Shapefile	1:24,000	1994	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626	FMRI & DOT	Yes	
Habitat	sfl_ben_92	Benthic habitats in south Florida	Florida Keys Natl. Marine Sanctuary, Florida Bay, and Biscayne Bay	Shapefile	1:40,000	92/'95/'99	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Base map	marine_facilities_2000	Location of boat marinas around Florida	Statewide - Florida	Shapefile	1:40,000	95/2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Base map	fl_statewater	Unofficial Florida state waters (three league/ 3 mile) line	Statewide - Florida	Shapefile		1999	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Base map	gulf_fedlands	Federal lands (military bases, national parks,	Gulf wide	Shapefile			FWC - Florida Marine	Kathleen O'Keife/ Tara	(727) 896-8626		No	

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
		preserves, forests, Indian reserves, etc...)					Research Institute	Morgan				
Base map	managed_lands_2001	Lands having natural resource value (identified by FNAI) being managed partially for conservation	Statewide - Florida	Shapefile	1:24,000	2001	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Disturbance	marine_precautions	Marine precautionary areas	GOM to Cape Henry	Shapefile	1,000,000	2001	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Key Species	shrimpclose_apal_poly	Apalachicola shrimp closure area boundary.	Apalachicola, FL (panhandle)	Shapefile		2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Key Species	shrimpclose_bend_poly	Big Bend shrimp closure area boundary.	west coast of Florida	Shapefile		2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Key Species	shrimpclose_citrus_poly	Citrus county shrimp closure area boundary.	Citrus county, Florida	Shapefile		2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Key Species	shrimpclose_ne_poly	Northeast Florida shrimp closure area boundary.	Northeast Florida	Shapefile		2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Key Species	shrimpclose_swfk_poly	Southwest Florida shrimp closure area boundary.	Southwest Florida	Shapefile		2000	FWC - Florida Marine	Kathleen O'Keife/ Tara	(727) 896-8626		Yes	

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
							Research Institute	Morgan				
Key Species	shrimpclose_taylor_poly	Taylor County shrimp closure area boundary.	Taylor County	Shapefile		2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Key Species	shrimpclose_tortuga_poly	Tortugas shrimp closure area boundary.	Tortugas - Southwest Florida	Shapefile		2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Key Species	sw_clams_char	Three clam aquaculture lease site boundaries.	Charlotte Harbor, FL	Shapefile		2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Habitat	tortugas_2001	Dry Tortugas Ecological Reserve boundary	Dry Tortugas, FL	Shapefile		2001	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Habitat	fl_mangroves	Mangrove distribution	Statewide - Florida	Shapefile	1:24,000	1994	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	
Habitat	fl_mangroves_94	Mangrove distribution	Central and southern Florida	Shapefile		1994	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		No	
Base map	gulf_mexico_names	Contains names of various seafloor features (basins, slopes, knolls, ridges,	Gulf wide	Shapefile		1999	FWC - Florida Marine Research Institute	Kathleen O'Keife/ Tara Morgan	(727) 896-8626		Yes	

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
		etc...)										
Base map	gulf_shore_100	Shoreline of the Gulf states and eastern Mexico	Gulf wide	Shapefile	1:100,000	97 or earlier	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626		Yes	
Base map	uscg_atons2000	Aids to Navigation (ATONS) locations	Most of Gulf coast & GA	Shapefile		2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626		Yes	
Base map	NOAA Nautical charts	Nautical charts for entire Gulf coast	Gulf wide		Varies		FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626		No	
Base map	fl_eez_noaa_arc	Exclusive Economic Zone (EEZ). Separates federal waters from international waters around Florida.	Florida	Shapefile	1:2,160,000	2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626			
Habitat	flscars_polygon	Prop scars to seagrass beds	Florida	Shapefile	1:40,000?	1994	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Boundaries	fknms_2001_polygon	Florida Keys Natl. Marine Sanctuary boundary	Florida Keys	Shapefile			FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626			
Base map	gulfsest_polygon	Gulf states with county boundaries	Gulf states	Shapefile			FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626			

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
							Institute					
Physical factors	bahamascuba_arc	Bathymetry for south Florida, Bahamas, & Cuba	S. Florida, Bahamas, Cuba	Shapefile	1:1,200,000	1997	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Physical factors	deepkeys_arc	Bathymetry for the FL Keys	Florida Keys	Shapefile	1:180,000	1997	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Physical factors	fl_contours_arc	Bathymetry for statewide Florida	Florida	Shapefile		1992	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Physical factors	missrivrkeys_arc	Bathymetry in the GOM from Miss to the Keys	Mississippi to FL Keys	Shapefile	1:875,000	1997	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Physical factors	sw_keys_polygon	Bathymetry for the FL Keys	Florida Keys	Shapefile			FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626			
Base map	fl40_2000_polygon	1:40,000 scale shoreline of Florida	Florida	Shapefile	1:40,000		FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626			
Base map	fl500_polygon	1:500,000 scale shoreline of Florida	Florida	Shapefile	1:500,000	1990	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Base map	fl_100_poly	1:100,000 scale	Florida	Shapefile	1:100,000		FWC -	Kathleen	(727)			

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
	gon	shoreline of Florida					Florida Marine Research Institute	O'Keife/Tara Morgan	896-8626			
Base map	fl_1mil_polygon	1:1,000,000 scale shoreline of Florida	Florida	Shapefile	1:1,000,000	1990	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Habitat	sw_bottomtype_89	Bottom type	west coast of Florida	Shapefile	1:100,000	89/00	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626		Yes	
Habitat	nw_oysters_92_polygon	Oysters	Florida's Big Bend & Panhandle	Shapefile	1:24,000	1992	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626		Yes	
Habitat	reefnms_point	Names of reefs in Florida Keys	Florida Keys	Shapefile	1:40,000	1990	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Disturbance	sw_atba_polygon	Areas to be avoided (atba)	Florida Keys	Shapefile	1:80,000	2000	FWC - Florida Marine Research Institute	Kathleen O'Keife/Tara Morgan	(727) 896-8626	same	Yes	
Habitat	habitats_florida	Habitats	Mid Louisiana to Florida	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Habitat	mars/coastal_marsh	Coastal marsh areas	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine	Peter Rubec	(727) 896-8626	S.L. Ross	No	

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
							Research Institute					
Habitat	rfrf/coralreefs_southfl	Coral reefs, south Florida	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Habitat	habi/habitats_florida	Habitat	Florida	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Habitat	mang/mangrove	Mangroves	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Habitat	marc/marsh_corridors	Marsh corridors	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Habitat	oyfzoyster_fishingzones	Oyster fishing zones	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Habitat	oyrf/oyster_reefs	Oyster reefs	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Habitat	park/parks_aquaticpreserves	Parks and aquatic preserves	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
Habitat	seag/seagrass	Seagrass areas	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Base map	shor/shoreline	Shoreline	Gulf wide	Shapefile	1:2,000,000	1985	FWC - Florida Marine Research Institute	Peter Rubec	(727) 896-8626	S.L. Ross	No	
Key Species	g1_02	Gulf of Mexico Sediments	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g1_03	Coral and hardbottom	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_07	Brown Shrimp	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_08	Pink Shrimp	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_09	White Shrimp	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_12	Royal Red Shrimp	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_13	Spiny Lobster	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_14	Stone Crab	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_25	Red grouper	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
Key Species	g3_26	Black grouper	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_27	Tilefish	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_29	Cobia	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_32	Greater Amerberjack	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_35	Mutton Snapper	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_36	Red Snapper	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_37	Cobia	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_38	Lane Snapper	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_39	Yellowtail Snapper	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_40	Vermillion Snapper	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_48	Red Drum	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_51	King Mackerel	Gulf wide	Shapefile	Very small	1985	Greenhorne & O'Mara, Inc.	Bridget Cermak	(727)576-0402	NOAA GOM data Atlas	Yes	Digitized from Atlas by G&O
Key Species	g3_52	Spanish Mackerel	Gulf wide	Shapefile	Very	1985	Greenhorne	Bridget	(727)576-	NOAA	Yes	Digitized from Atlas

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
					small		& O'Mara, Inc.	Cermak	0402	GOM data Atlas		by G&O
Boundaries	nps_3_03_us	National Park Service Boundaries	Gulf wide	Shapefile			NOAA/MPA	Julie Brownlee		NOAA		
Boundaries	nmfs_sp_2_14_03	Natl. Marine Fisheries Service Boundaries	Gulf wide	Shapefile			NOAA/MPA	Julie Brownlee		NOAA		
Boundaries	nerrs_2_14_03	Natl. Estuarine Research Reserve Boundaries	Gulf wide	Shapefile			NOAA/MPA	Julie Brownlee		NOAA		
Base map	gom_eda_cda_land_use	Land use/Land cover for coastal (estuarine) watersheds	Gulf wide	Shapefile	1:250,000	1990	NOAA/CADS	Mark Jacobsen	(301) 713-3000 x204	NOAA/NO S/SPO	Yes	Downloaded from web, reprojected to Albers 6/4
Base map	gom_lakes	Lakes	Gulf of Mexico states	Shapefile		1999	NOAA/NO S/SPO	Percy Pacheco	percy.pacheco@noaa.gov	same		Downloaded from web, reprojected to Albers 6/7
Threat	gom_ncpdi	Pollution sources	Gulf wide	Shapefile			NOAA/CADS	Mark Jacobsen	(301) 713-3000 x204			Downloaded from web, reprojected to Albers 6/4
Threat	gom_nsandt	chemical contamination and biological responses to that contamination/Status and Trends monitoring sites	Gulf wide	Shapefile		1994	NOAA/CADS	Thomas O'Connor	(301)713-3028 x151	NOAA/NO S/ORCA/CMBAD		Downloaded from web, reprojected to Albers 5/23
Base map	gom_rivers	Rivers	Gulf of Mexico states	Shapefile		1999	NOAA/NO S/SPO	Percy Pacheco	percy.pacheco@noaa.gov	same		Downloaded from web, reprojected to Albers 6/7
Physical factors	gom_sal_3_zones	Average annual salinity	Gulf wide	Shapefile		1999	NOAA/CADS	Mark Jacobsen	(301) 713-3000 x204	NOAA/NO S/SPO	Yes	Tidal Fresh (0-0.5 parts per thousand) Mixing Zone (0.5 - 25 parts per thousand)

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
												Seawater Zone (25 parts per thousand or greater)
Key Species	gom_shellfish_csa	Shellfish growing areas	Gulf wide	Shapefile		1995	NOAA/CADS	Mark Jacobsen	(301) 713-3000 x204	NOAA/NO S/SPO	Yes	Downloaded from web, reprojected to Albers 6/4
Base map	gulfstates	Shows boundaries of Gulf states	Gulf states	Shapefile	1:2,000,000	1999	NOAA/CADS	Mark Jacobsen	(301) 713-3000 x204	NOAA/NO S/SPO	Yes	Downloaded from web, reprojected to Albers, selected only Gulf states 5/23
Physical factors	chlorophyll_0/c00an1	Chlorophyll levels by 1 degree grid	World	Access app.		1998	NOAA/NO DC/Ocean Climate Lab	Todd O'Brien	(301)713-3290	NOAA/NO DC/OCL	on web	data was converted (on web) into lat/long/value
Physical factors	oxygen_0/00an1	Oxygen levels by 1 degree grid	World	Access app.		1998	NOAA/NO DC/Ocean Climate Lab	Todd O'Brien	(301)713-3290	NOAA/NO DC/OCL	on web	"
Physical factors	salinity_0/s00an1	Salinity levels by 1 degree grid	World	Access app.		1998	NOAA/NO DC/Ocean Climate Lab	Todd O'Brien	(301)713-3290	NOAA/NO DC/OCL	on web	"
Physical factors	temperature_0/t00an1	Temperature levels by 1 degree grid	World	Access app.		1998	NOAA/NO DC/Ocean Climate Lab	Todd O'Brien	(301)713-3290	NOAA/NO DC/OCL	on web	"
Physical factors	quarter_sal/s000hr	Salinity levels by quarter degree grid	World	Access app.		1994	NOAA/NO DC/Ocean Climate Lab	Todd O'Brien	(301)713-3290	NOAA/NO DC/OCL	on web	"
Physical factors	quarter_tem/p/t000hr	Temperature levels by quarter degree grid	World	Access app.		1994	NOAA/NO DC/Ocean Climate Lab	Todd O'Brien	(301)713-3290	NOAA/NO DC/OCL	on web	"
Habitat	cbrs	Undeveloped coastal barrier islands mapped by the U.S. Fish and Wildlife Service.	Texas	Shapefile	1:24,000 or smaller	1994	Texas Natural Resources Information System (TNRIS)		(512)463-8337	USFWS & Texas Gen. Land Office	Yes	Downloaded from web 5/24 - reprojected to Albers
Disturbance	chanceoe	Dredged shipping channels in coastal waters.	Texas	Shapefile	1:24,000 or smaller	1994	Texas Natural Resources		(512)463-8337	U.S. Army Corp of Engineers	Yes	Downloaded from web 5/24 - reprojected to Albers

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
							Information System (TNRIS)					
Base map	cpres	GLO/TPWD coastal preserve areas; digitized from state tract maps.	Texas	Shapefile	1:24,000 or smaller	1993	Texas Natural Resources Information System (TNRIS)		(512)463-8337	Texas Gen. Land Office/ Res. Mngmt. Division	Yes	Downloaded from web 5/24 - reprojected to Albers
Disturbance	esi_beg	Shoreline of Texas with Environmental Sensitivity Index classification	Texas	Shapefile		94-99	Texas Natural Resources Information System (TNRIS)		(512)463-8337	Texas Gen. Land Office/ Univ. of Texas	Yes	Downloaded from web 5/24 - reprojected to Albers
Disturbance	fairways	Shipping safety fairways in the western Gulf of Mexico. Digitized from NOAA maps.	Texas	Shapefile		82/93	Texas Natural Resources Information System (TNRIS)		(512)463-8337	U.S. Army Corp of Engineers/T GLO	Yes	Downloaded from web 5/24 - reprojected to Albers
Disturbance	leasepoly	Locations of structures and activities on state-owned land and waters.	Texas	Shapefile	1:24,000 or smaller	2001	Texas Natural Resources Information System (TNRIS)		(512)463-8337	Texas General Land Office	Yes	Downloaded from web 5/24 - reprojected to Albers
Base map	line3nm	Line of demarcation three nautical miles offshore of the Texas coast in the Gulf of Mexico.	Texas	Shapefile			Texas Natural Resources Information System (TNRIS)		(512)463-8337		No	Downloaded from web 5/24 - no metadata
Threat	marinas	Public (and some private) marinas on the Texas coast.	Texas	Shapefile	1:24,000 or smaller	95-97	Texas Natural Resources Information		(512)463-8337	Texas General Land Office	Yes	Downloaded from web 5/24 - reprojected to Albers

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
							System (TNRIS)					
Base map	natlsanc	Boundary of Flower Garden Banks National Marine Sanctuary.	Texas	Shapefile	1:240,000	1993	Texas Natural Resources Information System (TNRIS)		(512)463-8337	Texas Gen. Land Office/ Res. Mngmt. Division	Yes	Downloaded from web 5/24 - reprojected to Albers
Habitat	oysters	Oyster reef distribution in the Galveston Bay system.	Texas	Shapefile			Texas Natural Resources Information System (TNRIS)		(512)463-8337	Texas General Land Office	Yes	Downloaded from web 5/24 - reprojected to Albers
Habitat	oysttpwd	Oyster reefs mapped by the TPWD Coastal Fisheries Division in the San Antonio Bay system.	Texas	Shapefile			Texas Natural Resources Information System (TNRIS)		(512)463-8337		No	Downloaded from web 5/24 - no metadata
Threat	platfms	Oil/gas platforms in federal waters of the Gulf of Mexico.	Texas	Shapefile		1999	Texas Natural Resources Information System (TNRIS)		(512)463-8337	Louisiana Oil Spill Coordinator's Office	Yes	Downloaded from web 5/24 - reprojected to Albers
Habitat	prior2	Priority coastal habitat areas to be protected during oil or hazardous material spills on the central or lower Texas coast.	Texas	Shapefile			Texas Natural Resources Information System (TNRIS)		(512)463-8337	TGLO & Texas Parks and Wildlife Dept.	Yes	Downloaded from web 5/24 - no metadata
Habitat	priority1	Priority coastal habitat areas to be protected during oil or hazardous	Texas	Shapefile	1:24,000 or smaller	1995	Texas Natural Resources Information		(512)463-8337	TGLO & Texas Parks and Wildlife	Yes	Downloaded from web 5/24 - reprojected to Albers

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
		material spills on the upper Texas coast.					System (TNRIS)			Dept.		
Habitat	seagrass	Seagrass beds compiled from TPWD sample data (Redfish, Aransas and Corpus Christi Bays) and areas of submerged vegetation mapped by the USFWS National Wetland Inventory. May not depict all seagrass areas on the Texas coast.	Texas	Shapefile	24,000	88/94	Texas Natural Resources Information System (TNRIS)		(512)463-8337	Texas Parks & Wildlife Department	Yes	Downloaded from web 5/24 - reprojected to Albers
Key Species	species	Coastal distribution of animals, plants and habitats potentially at risk from oil spill damage or response activities.	Texas	Shapefile	1:24,000 or smaller	1998	Texas Natural Resources Information System (TNRIS)		(512)463-8337	TGLO & Texas Parks and Wildlife Dept.	Yes	Downloaded from web 5/24 - reprojected to Albers
	subminlease	Oil and gas leases located in the submerged areas of the Texas Gulf Coast.	Texas	Shapefile		2001	Texas Natural Resources Information System (TNRIS)		(512)463-8337	Texas General Land Office	Yes	Downloaded from web 5/24 - reprojected to Albers
Physical	bathymetry LA	Bathymetry	Louisiana	Shapefile		1999	Louisiana State University (LSU) - Atlas			Louisiana Oil Spill Coordinator's Office	Yes	Downloaded from web 5/31 - reprojected to Albers -

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
Base map	burnexclusion	Areas in the Gulf of Mexico that are excluded from pre-approval for the use of in-situ burning to remediate the effects of an oil spill.	Louisiana	Shapefile		1999	Louisiana State University (LSU) - Atlas			Louisiana Oil Spill Coordinator's Office	Yes	Downloaded from web 5/31 - reprojected to Albers
Threat	burnpreapproval	Areas of offshore Louisiana having pre-approval for the use of in-situ burning to remediate the effects of an oil spill	Louisiana	Shapefile		1999	Louisiana State University (LSU) - Atlas					Downloaded from web 5/31 - reprojected to Albers
Base map	coastalzone	Coastal zone boundary	Louisiana	Shapefile	1:24,000	1998	Louisiana State University (LSU) - Atlas			Louisiana Dept. of Natural Resources	Yes	Downloaded from web 5/31 - reprojected to Albers - No metadata
Base map	majwaterbodies	Major water bodies	Louisiana	Shapefile		1999	Louisiana State University (LSU) - Atlas			Louisiana Oil Spill Coordinator's Office	Yes	Downloaded from web 5/31 - reprojected to Albers - No metadata
Habitat/disturbance	oilplatformsLA	MMS administered platform structures used for oil and gas production in the GOM	Louisiana	Shapefile		1999	Louisiana State University (LSU) - Atlas			Louisiana Oil Spill Coordinator's Office	Yes	Downloaded from web 5/31 - reprojected to Albers
Physical	salinityLA	Delineates vegetation and	Louisiana	Shapefile	1:24,000	1997	Louisiana State			LDWF, USGS,	Yes	Downloaded from web 5/31 -

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
		salinity regimes in coastal Louisiana.					University (LSU) - Atlas			LSU		reprojected to Albers
Base map	EEZalb	Exclusive Economic Zone (EEZ). Separates federal waters from international waters around.	West Gulf of Mexico	Feature class			Minerals Management Service (MMS)					Downloaded from web 5/31 - reprojected to Albers
Base map	fairwayalb	Shipping fairways for GOM	Gulf wide	Coverage			Minerals Management Service (MMS)				No	Downloaded from web 7/1 - reprojected to Albers
Threat	tiger_tracts_2000	TIGER 2000 census tracts	Florida	Shapefile	1:100,000	2000	FL Dept. of Environmental Protection (DEP)	Eric W Brockwell		Florida Senate JLMC/EDR	Yes	Downloaded from web 6/
Habitat	alsavbons - alsavpetbp	Seagrass - continuous and discontinuous	Alabama (Mobile Bay)	10 coverages	1:24,000	1992	U.S. Geological Survey			USGS/Natl. Wetlands Research Center	Yes	Downloaded from web, imported .e00 to coverage, reprojected
Habitat	savchan - savstaw	Seagrass - continuous and discontinuous	Louisiana (off New Orleans)	6 coverages	1:24,000	1992	U.S. Geological Survey			USGS/Natl. Wetlands Research Center	Yes	Downloaded from web, imported .e00 to coverage, reprojected
Habitat	missavbast - missavwave	Seagrass - continuous and discontinuous	Mississippi	27 coverages	1:24,000	1992	U.S. Geological Survey			USGS/Natl. Wetlands Research Center	Yes	Downloaded from web 6/26, imported .e00 to coverage, reprojected
Habitat	geologyalb	GOM GLORIA side scan sonar geologic interpretation	Deepwater GOM	Shapefile	1:5,000,000	1987/1998	U.S. Geological Survey/Woods Hole Field Center	Valerie Paskevich		USGS/Woods Hole Field Center	Yes	Downloaded from web 6/26, reprojected
Habitat	interpalb	Interpretation of depositional units	Mississippi Fan	Shapefile		2000	U.S. Geological	David Twichell		USGS/Woods Hole	Yes	Downloaded from web 6/26, reprojected

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
		of the MS fan					Survey/Woods Hole Field Center			Field Center		
Base map	la_waterfeature_type	Subset of GNIS. Identifies water bodies in LA (Lakes, river, canals, etc...	Louisiana	Shapefile	1:24,000	1999	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		LOSCO	Yes	On CD from Heather Mounts
Threat	la_populations	Represents the population of the U.S. Census block centroids	Louisiana	Shapefile	1:100,000	2000	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		ESRI Data & Maps	Yes	On CD from Heather Mounts
	la_abandoned_barges	Inventory of abandoned vessels and barges in Louisiana coastal waters	Louisiana	Shapefile		1999	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		LOSCO	Yes	On CD from Heather Mounts
Base map	usgs_southeast_bathy	Southeast U.S. bathymetry	East Mississippi to Atlantic	Shapefile		2000	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		NOAA/CS C	Yes	On CD from Heather Mounts
Base map	usgs_coastline_24k	Coastline of entire U.S.	U.S. Coast	Shapefile	1:24,000	Unknown	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		USGS/St. Pete Coastal and Marine Field Office	Yes	On CD from Heather Mounts
Base map	la_rivers_100k	Rivers and streams in the state of Louisiana	Louisiana	Shapefile	1:100,000	1999	U.S. Geological Survey/Center for	Heather Mounts		LOSCO	Yes	On CD from Heather Mounts

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
							Coastal Geology					
	la_pipelines_100k	Various pipelines throughout the state of Louisiana	Louisiana	Shapefile	1:100,000	1999	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		USGS/BRD/NWRC	Yes	On CD from Heather Mounts
	fl_sensitive_shorelines	ESI shoreline	Florida	Shapefile	1:24,000	1999	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		FMRI	Yes	On CD from Heather Mounts
Base map	fl_noaa_bathy	Bathymetry for the state of Florida	Florida	Shapefile		1998	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		NOAA/CS C	Yes	On CD from Heather Mounts
Base map	fl_majorrivers_100k	Major rivers of Florida	Florida	Shapefile	1:100,000	1985	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		USGS or another agency in cooperation w/USGS	Yes	On CD from Heather Mounts
Habitat	usgs_se_coastal_reefs	Southeastern coastal reef program.	North Carolina to FL panhandle	Shapefile		1998	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		NOAA/CS C	Yes	On CD from Heather Mounts
	se_beach_nourishment	Point locations of beach renourishment	North Carolina to FL panhandle	Shapefile		2000	U.S. Geological Survey/Center for Coastal	Heather Mounts			Yes	On CD from Heather Mounts

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
							Geology					
Habitat	la_chandeleur_seagrass	Seagrass vegetation beds	Chandeleur Islands, LA	Shapefile	1:24,000	1998	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		USGS/NWRC	Yes	On CD from Heather Mounts
Habitat	fl_wetlands_100k	Wetlands	Florida	Shapefile	1:100,000	96/97	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		FDEP	Yes	On CD from Heather Mounts
Habitat	fl_tidalflats_24k	Statewide tidal flats	Florida	Shapefile	1:24,000		U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		FMRI	Yes	On CD from Heather Mounts
Habitat	fl_saltmarsh_24k	Statewide saltmarshes	Florida	Shapefile	1:24,000	1997	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts		FMRI	Yes	On CD from Heather Mounts
Base map	fl_deepwater_bathy	Deep water bathymetry off FL coasts	Florida	Shapefile		2002	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts			Yes	On CD from Heather Mounts
Base map	fl_citylimits_24k	Contains city limits or boundaries of many FL cities	Florida	Shapefile	1:24,000	2002	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts			Yes	On CD from Heather Mounts

Database Theme	Database Name	Description	Geographic Coverage	Format	Scale	Dates	Contact Agency	Contact Name	Contact Phone #	Original Data Source	Metadata	Notes
Habitat	fl_bigbend_seagrass	Seagrass	Big Bend Florida	Shapefile		2001	U.S. Geological Survey/Center for Coastal Geology	Heather Mounts			Yes	On CD from Heather Mounts
Boundaries	DTNP	Dry Tortugas National Park	Dry Tortugas, FL	Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34
Boundaries	ew_flower_garden_banks	West and east Flower Garden Banks HAPC	Flower Garden Banks, TX	Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34
Boundaries	madison_swanson_sites_alb	Madison and Swanson sites - no fishing except highly migratory species	west coast of Florida	Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34
Boundaries	reef_fish_stressed_alb	Reef fish stressed area	Gulf wide	Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34
Boundaries	reef_longline_buoy_gear	Reef fish longline and buoy gear restricted area		Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34
Boundaries	steamboat_lumps_site_alb	Steamboat Lumps site - no fishing except highly migratory species	west coast of Florida	Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34
Boundaries	sw_fl_sea_trawl_closure_alb	Southwest Florida seasonal trawl closure	Southwest Florida	Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34
Boundaries	texas_closure	Texas closure for trawling except royal red shrimp past 100 fathom	Texas	Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34
Boundaries	tortuga_shrimp_sanctuary	Tortugas Shrimp sanctuary - closed to trawling	Dry Tortugas, FL	Shapefile		2003				Federal Register	No	lat/longs 50CFR Part600.105 & 622.34

