

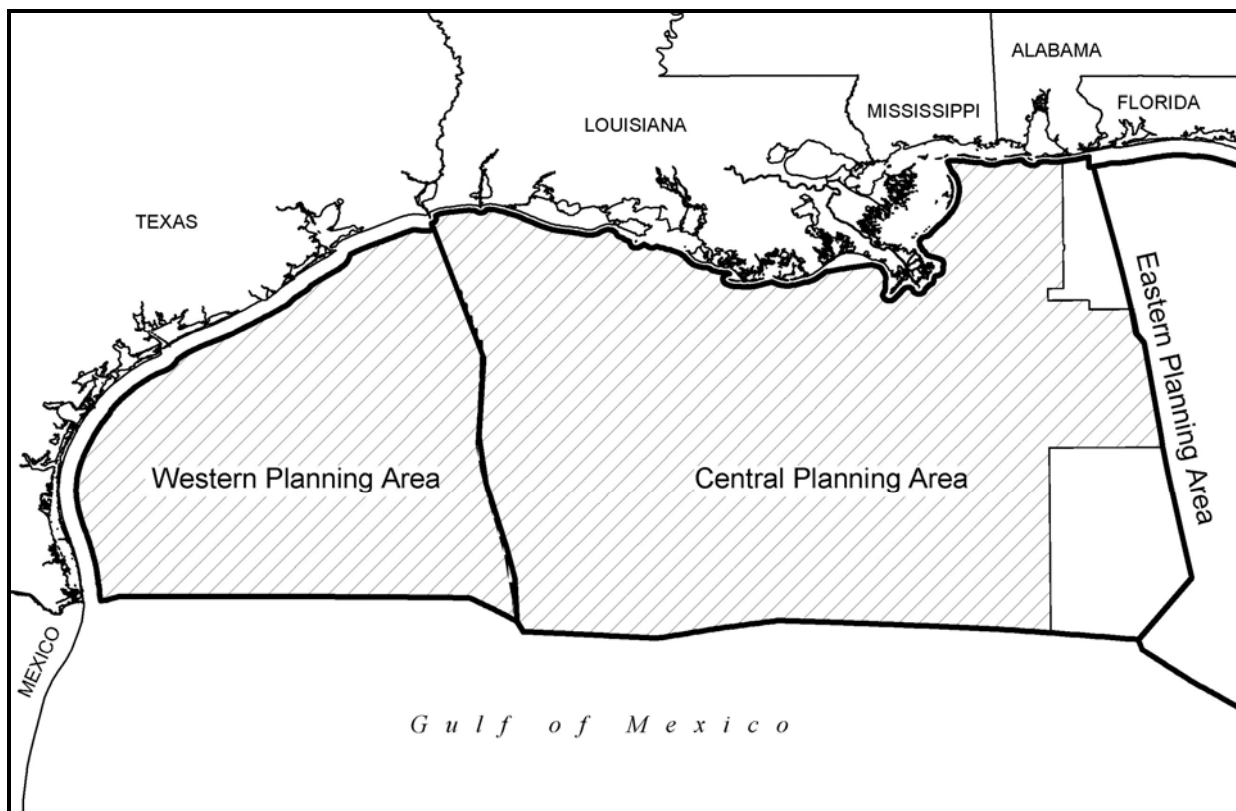
# Gulf of Mexico OCS Oil and Gas Lease Sales: 2007-2012

Western Planning Area Sales 204, 207, 210, 215, and 218

Central Planning Area Sales 205, 206, 208, 213, 216, and 222

Draft Environmental Impact Statement

Volume II: Figures and Tables



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**Draft Environmental Impact Statement**

**Volume II: Figures and Tables**

Author

Minerals Management Service  
Gulf of Mexico OCS Region

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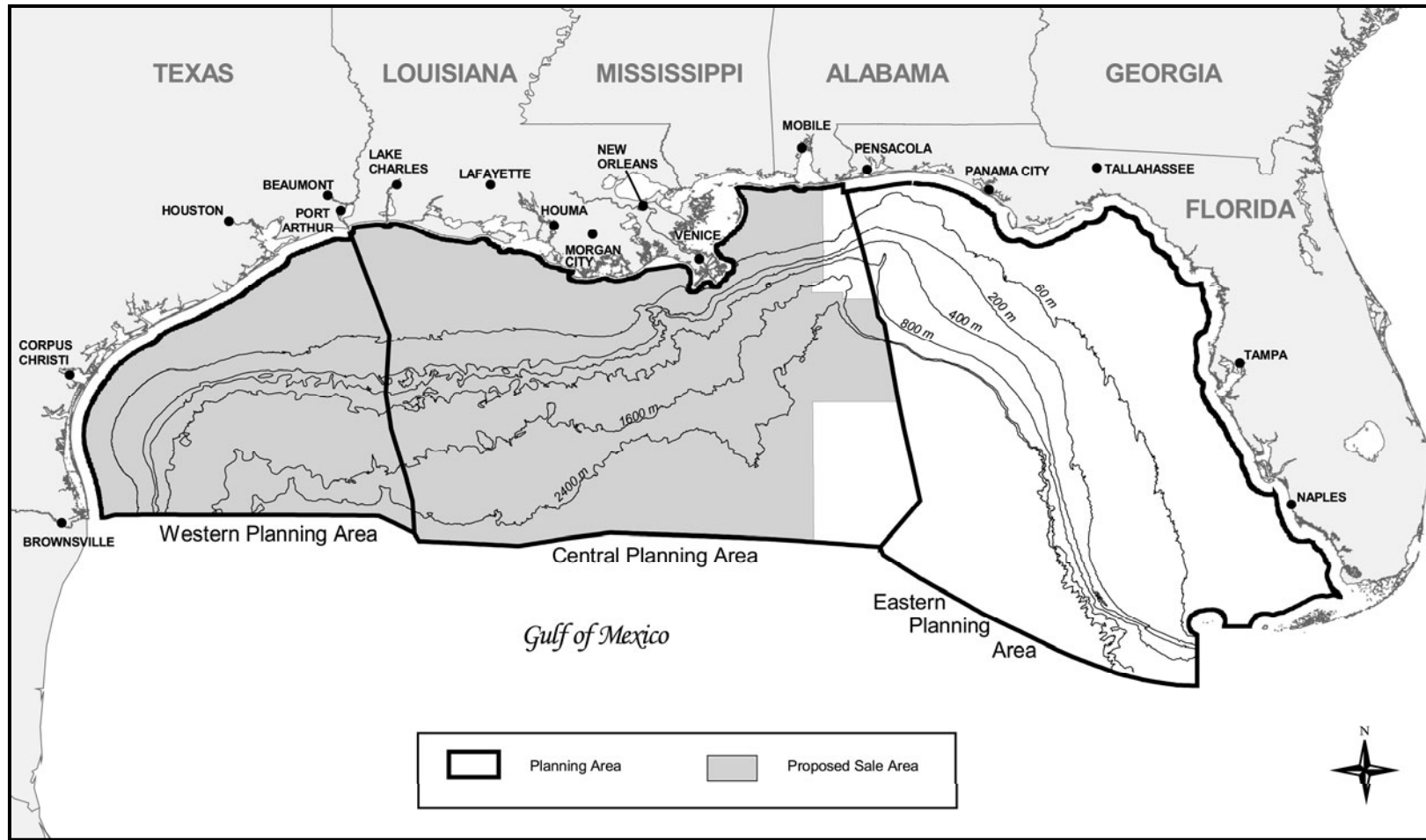


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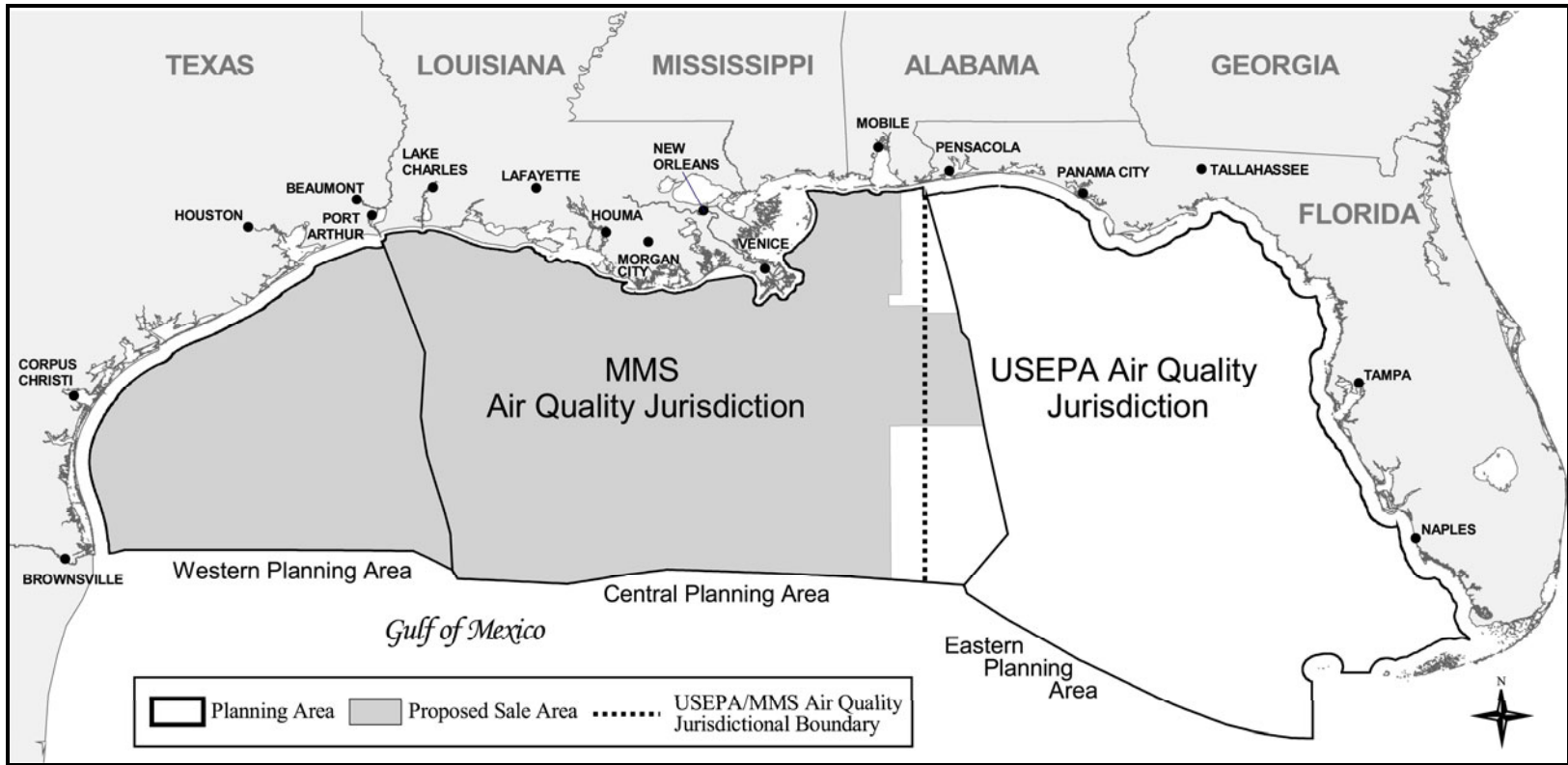


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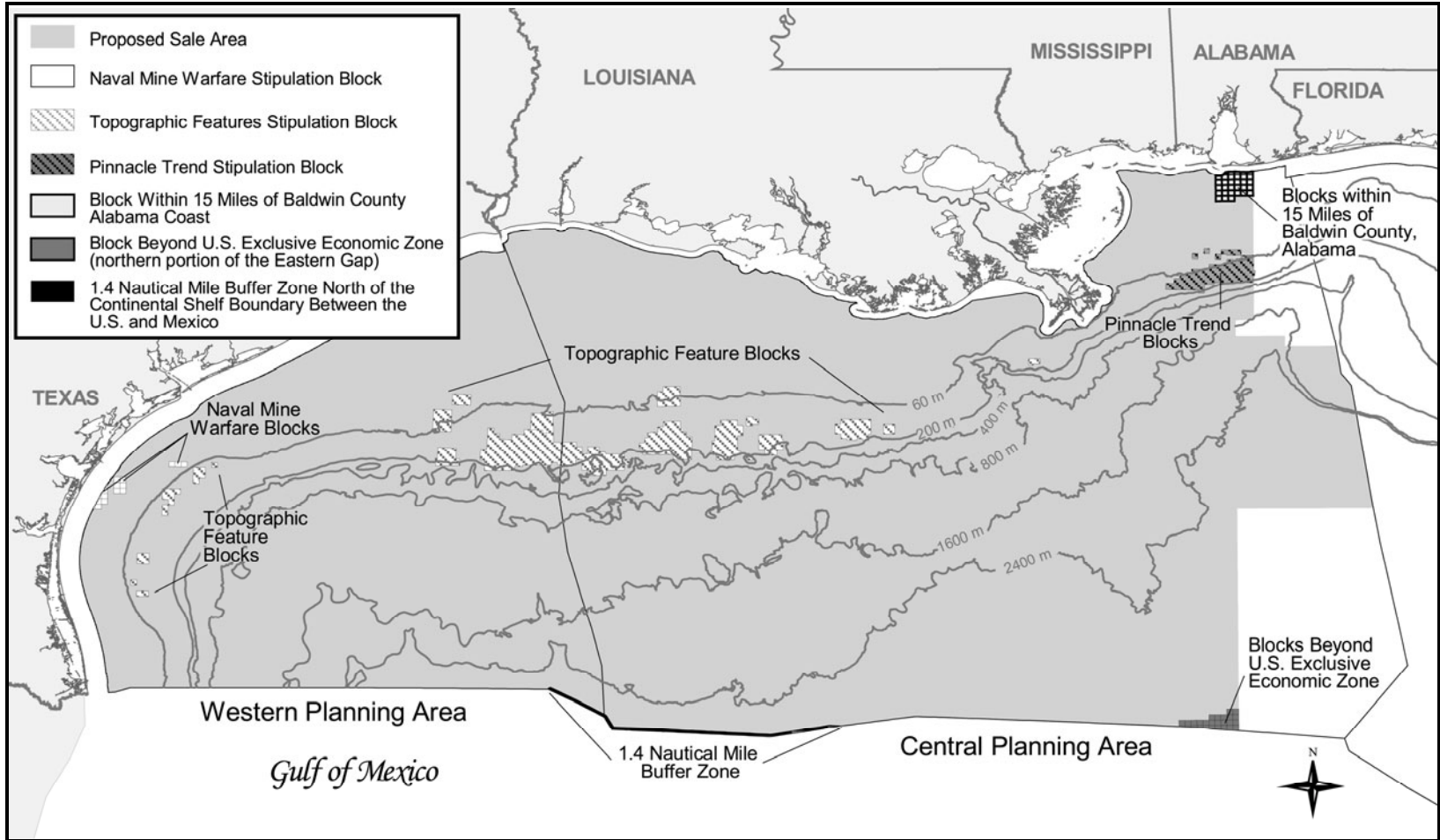


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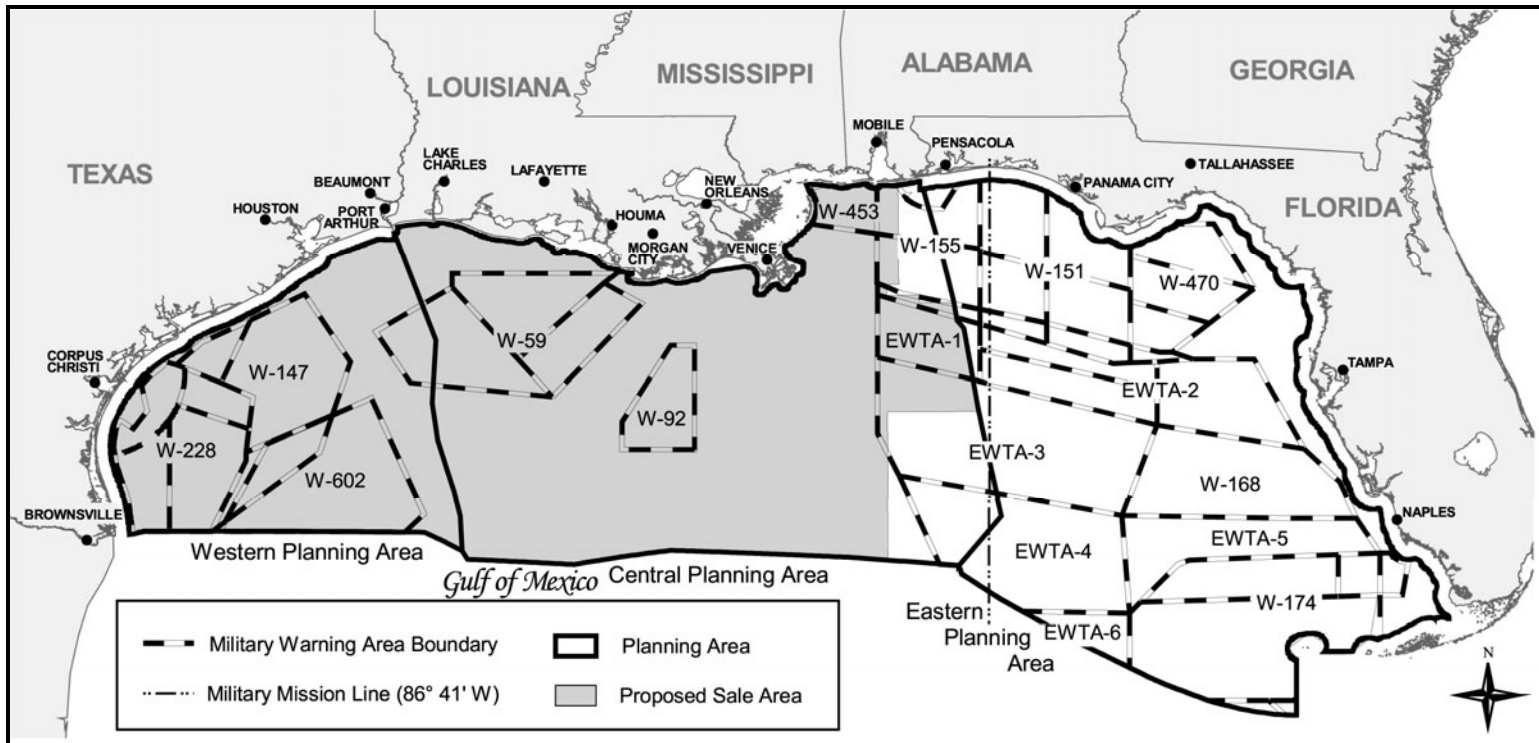


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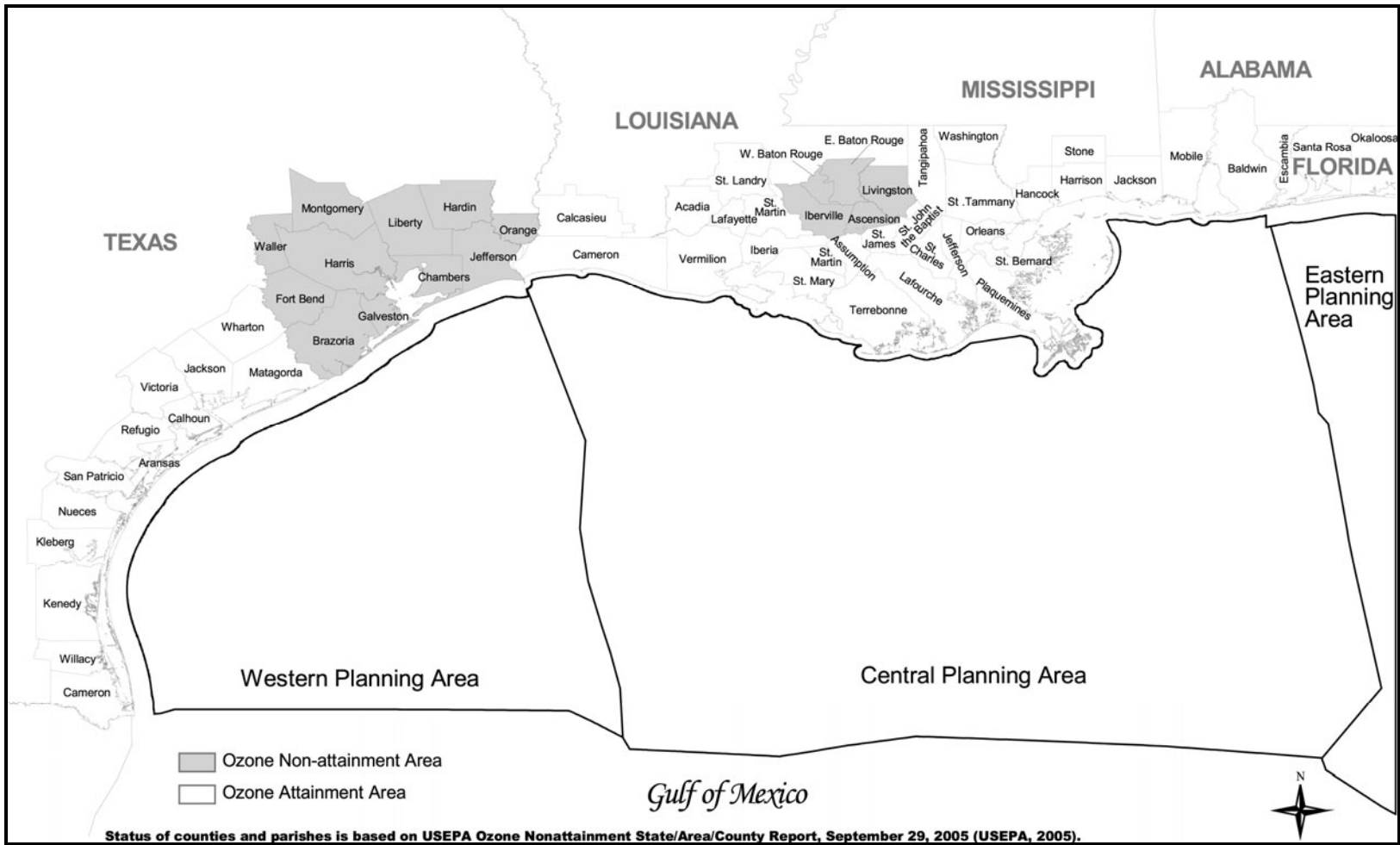


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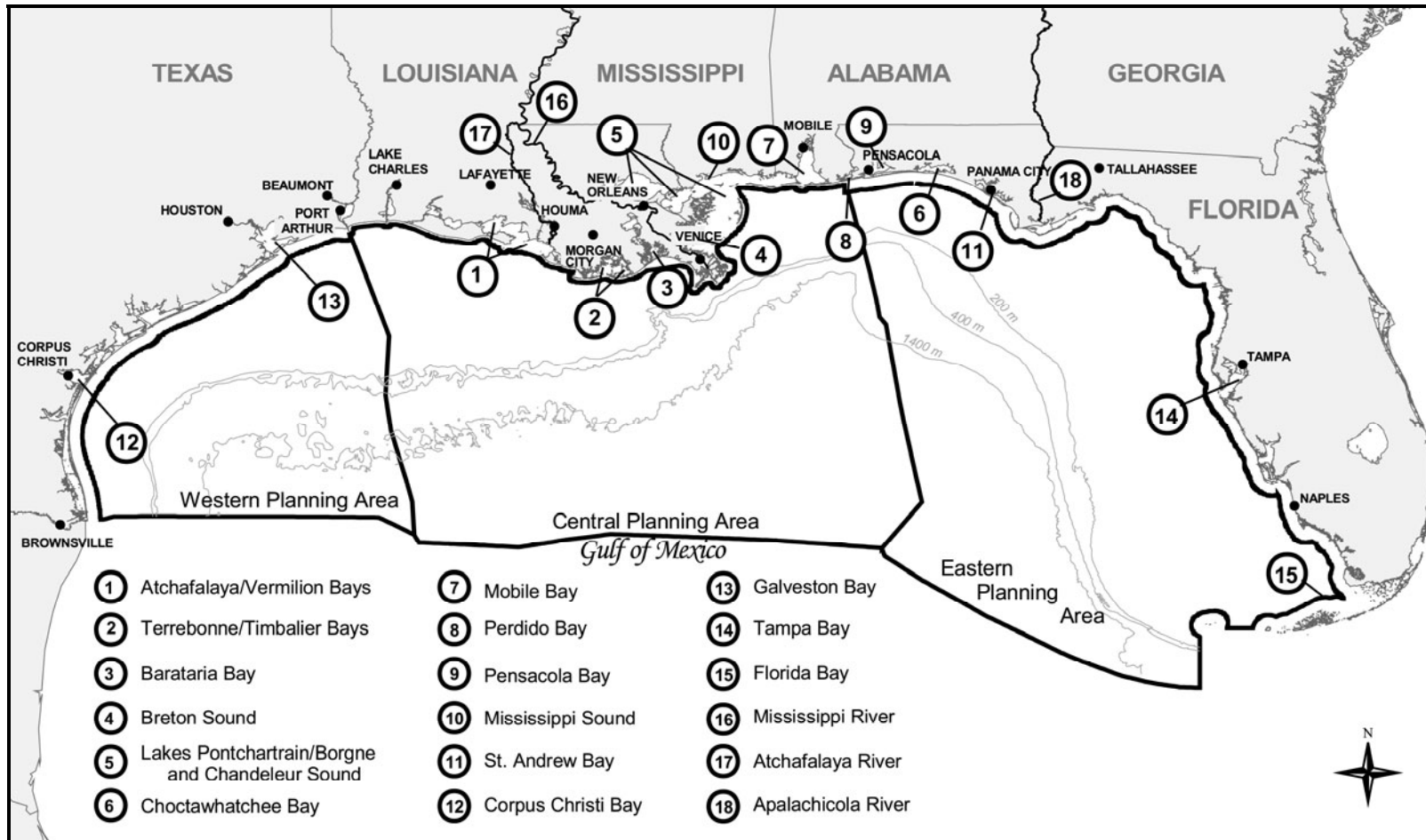


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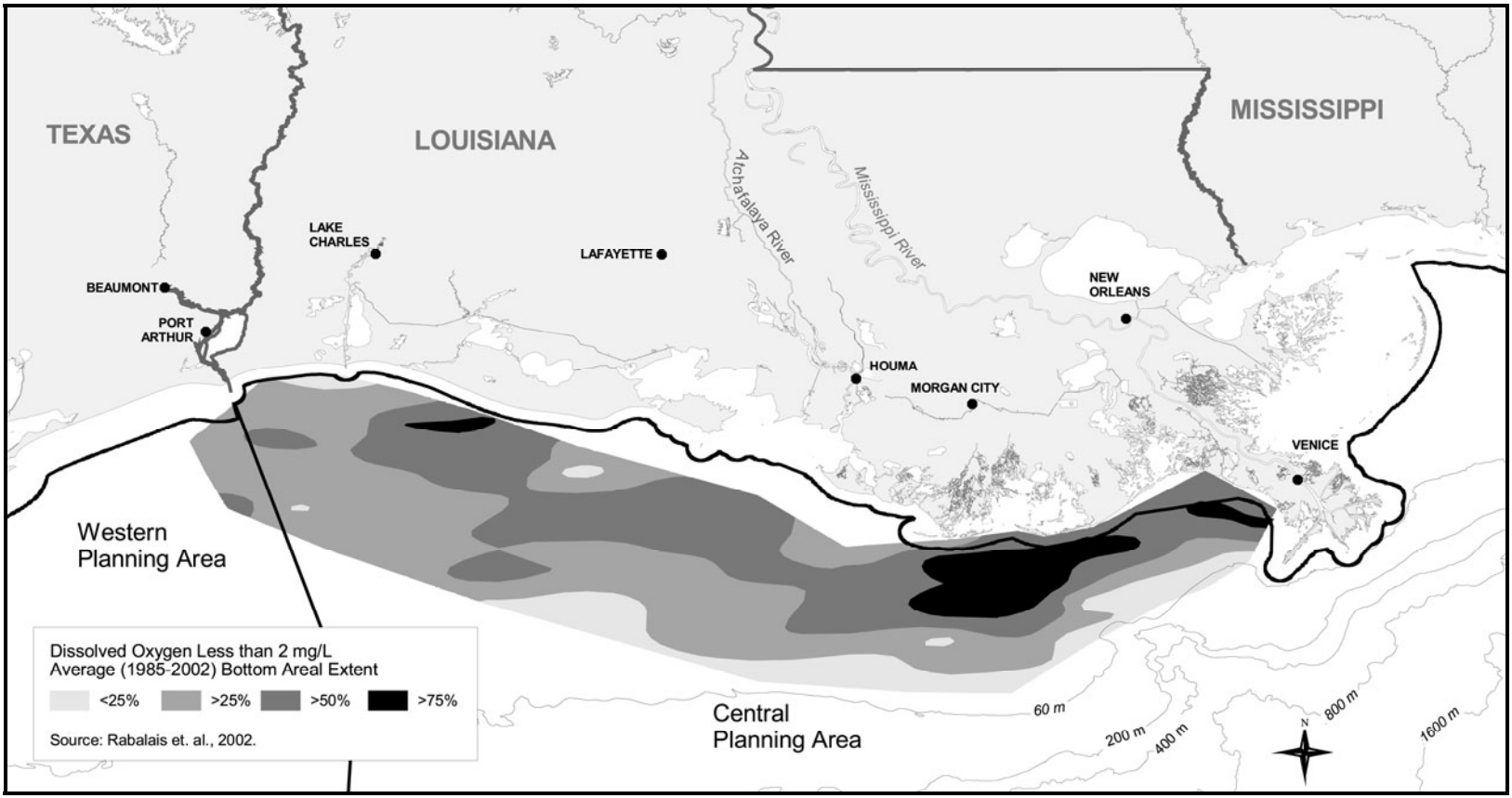
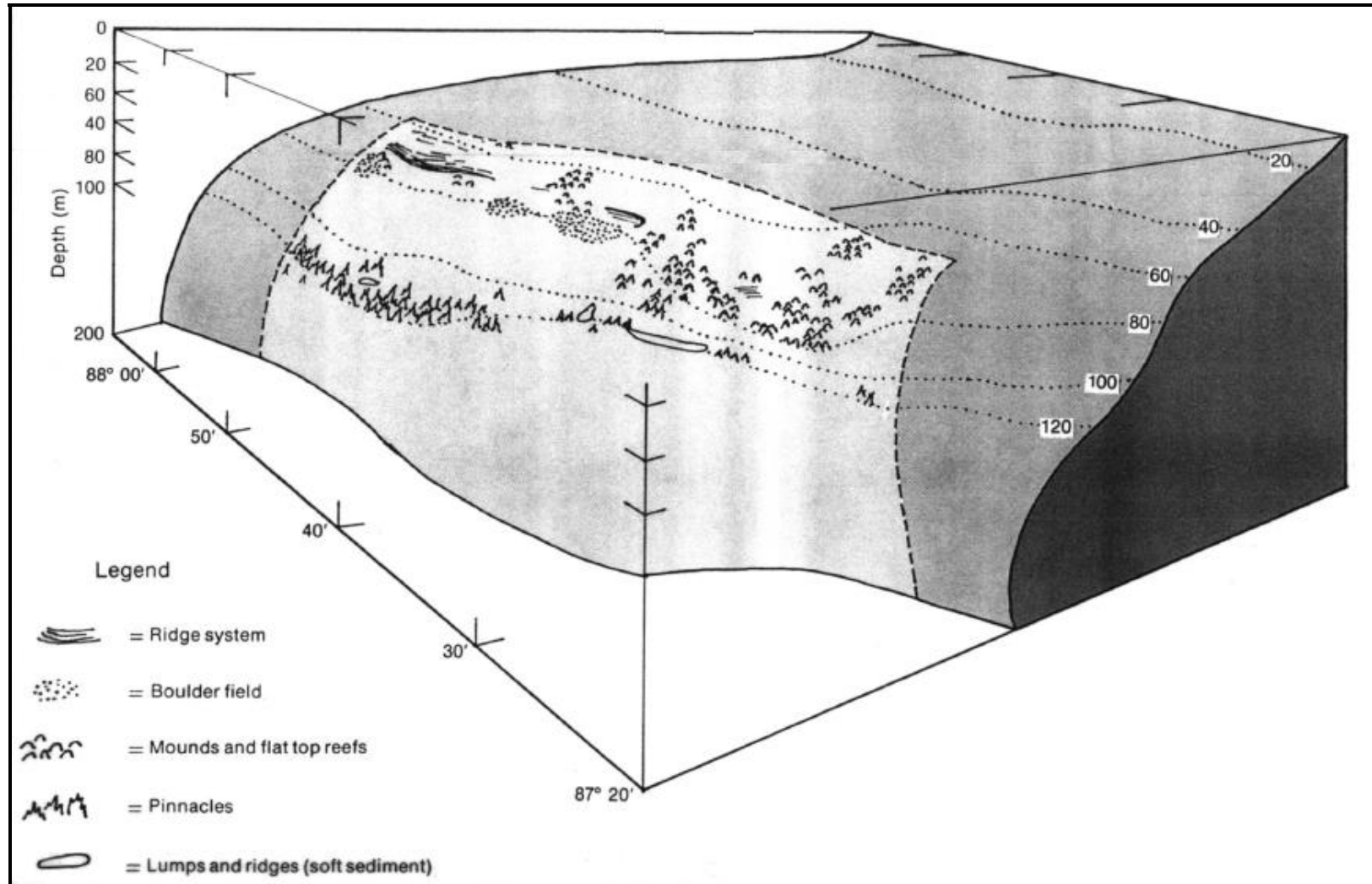


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Source: Brooks, 1991.

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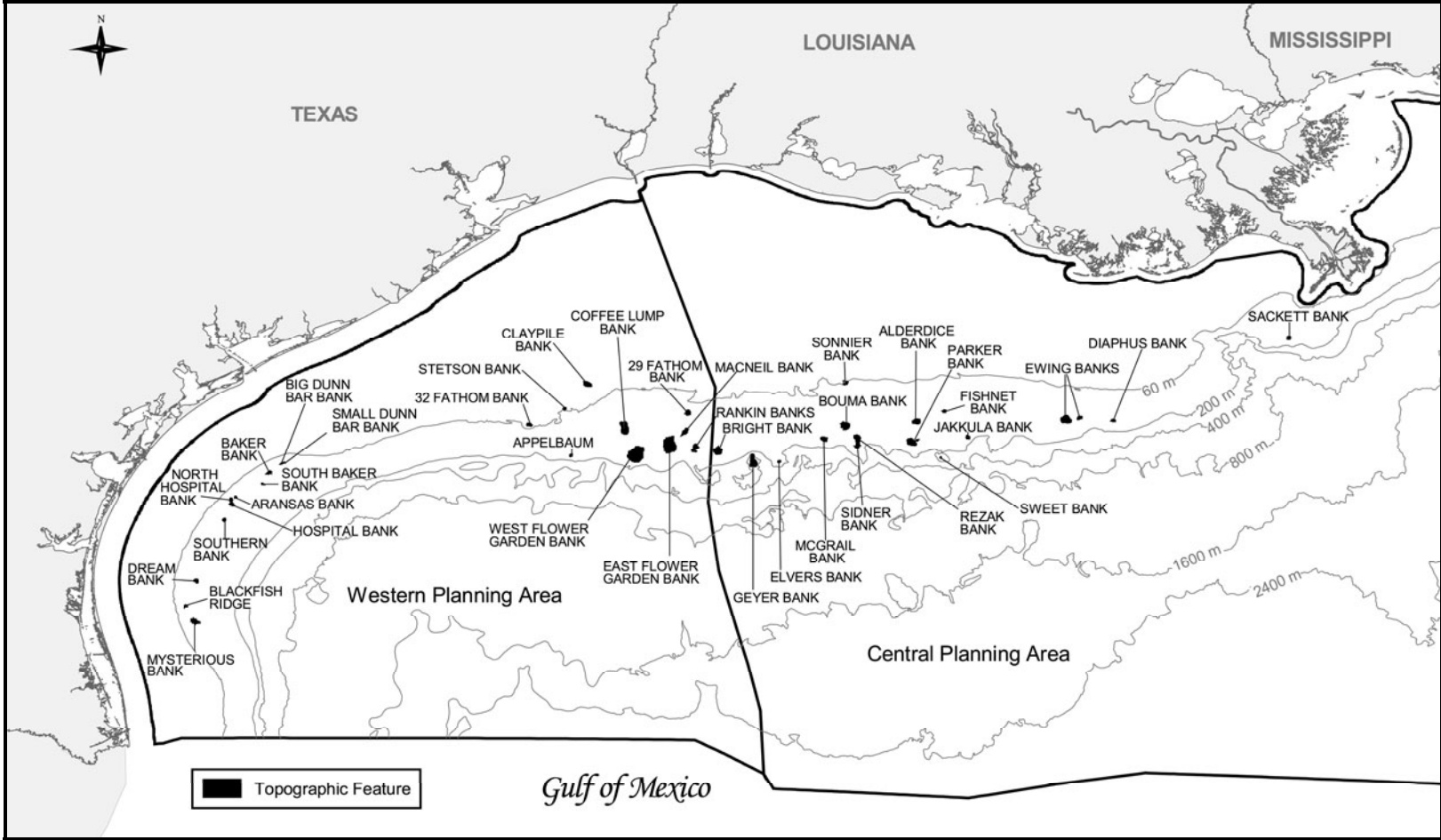


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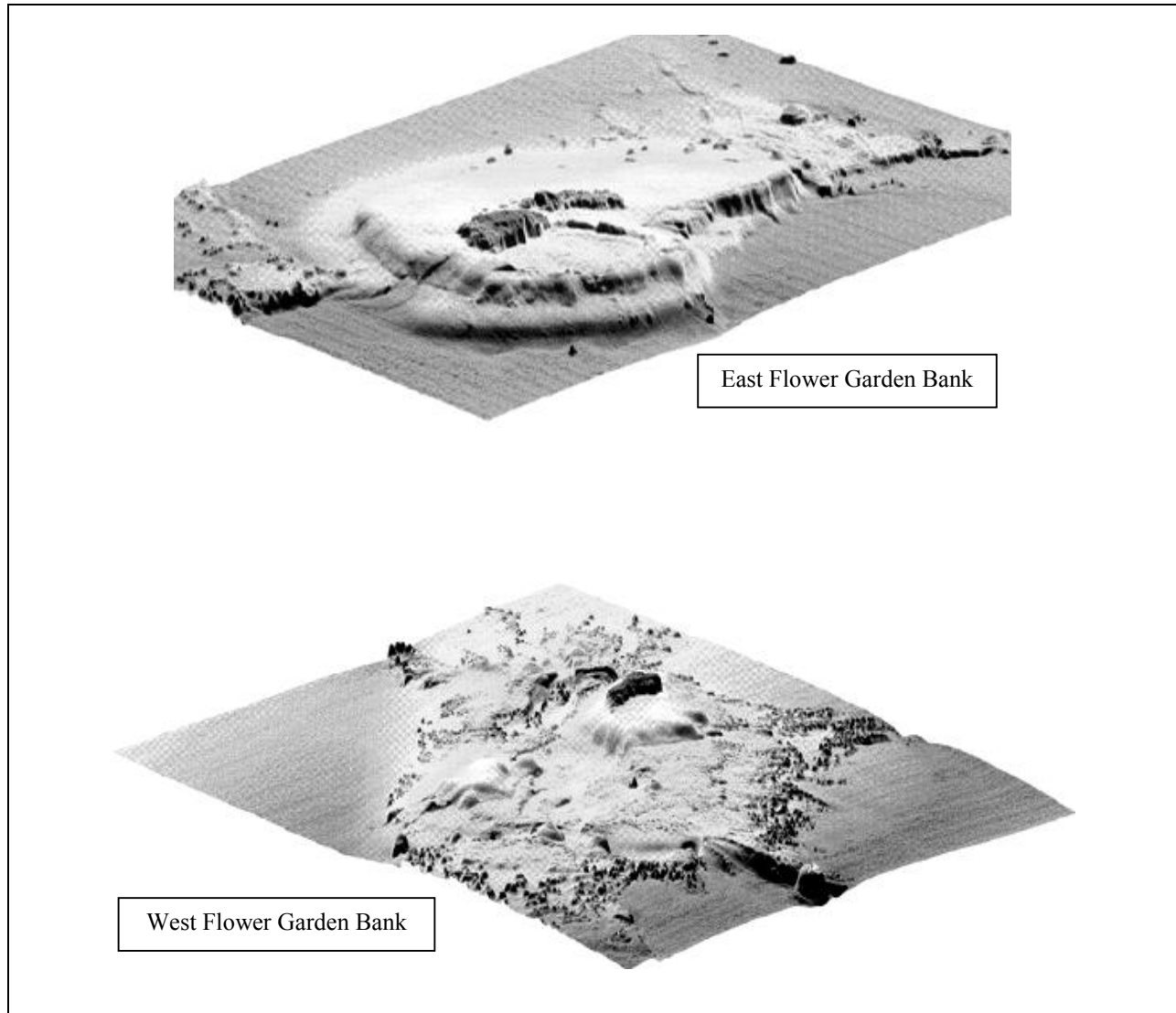


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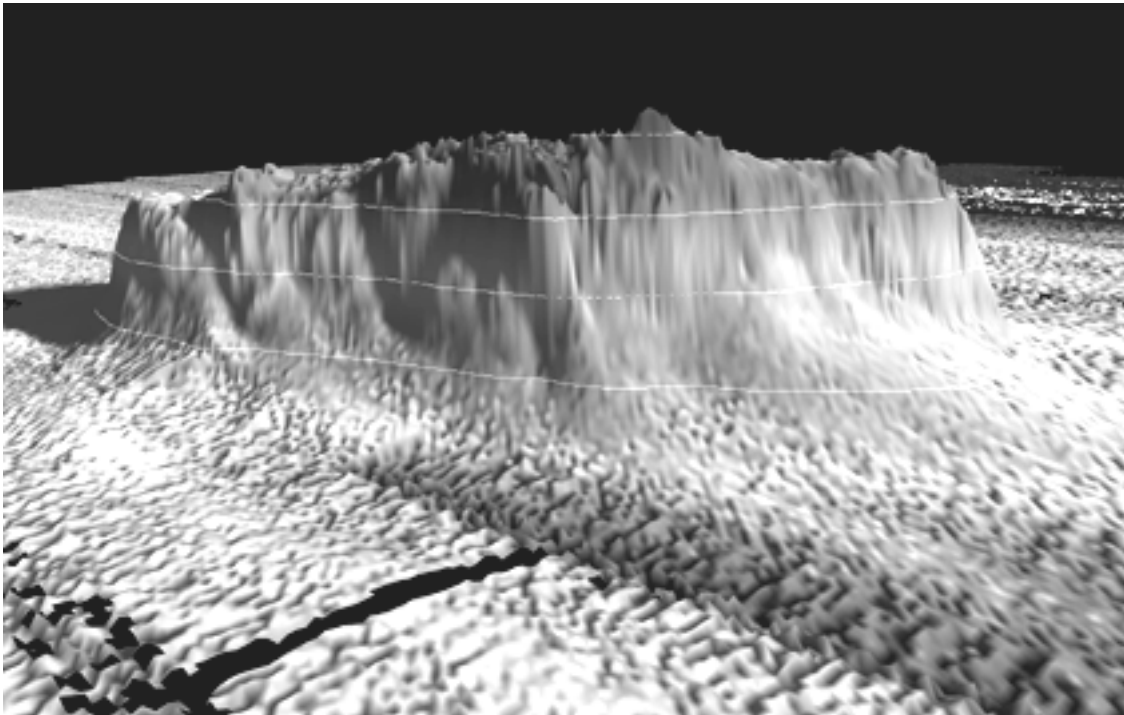


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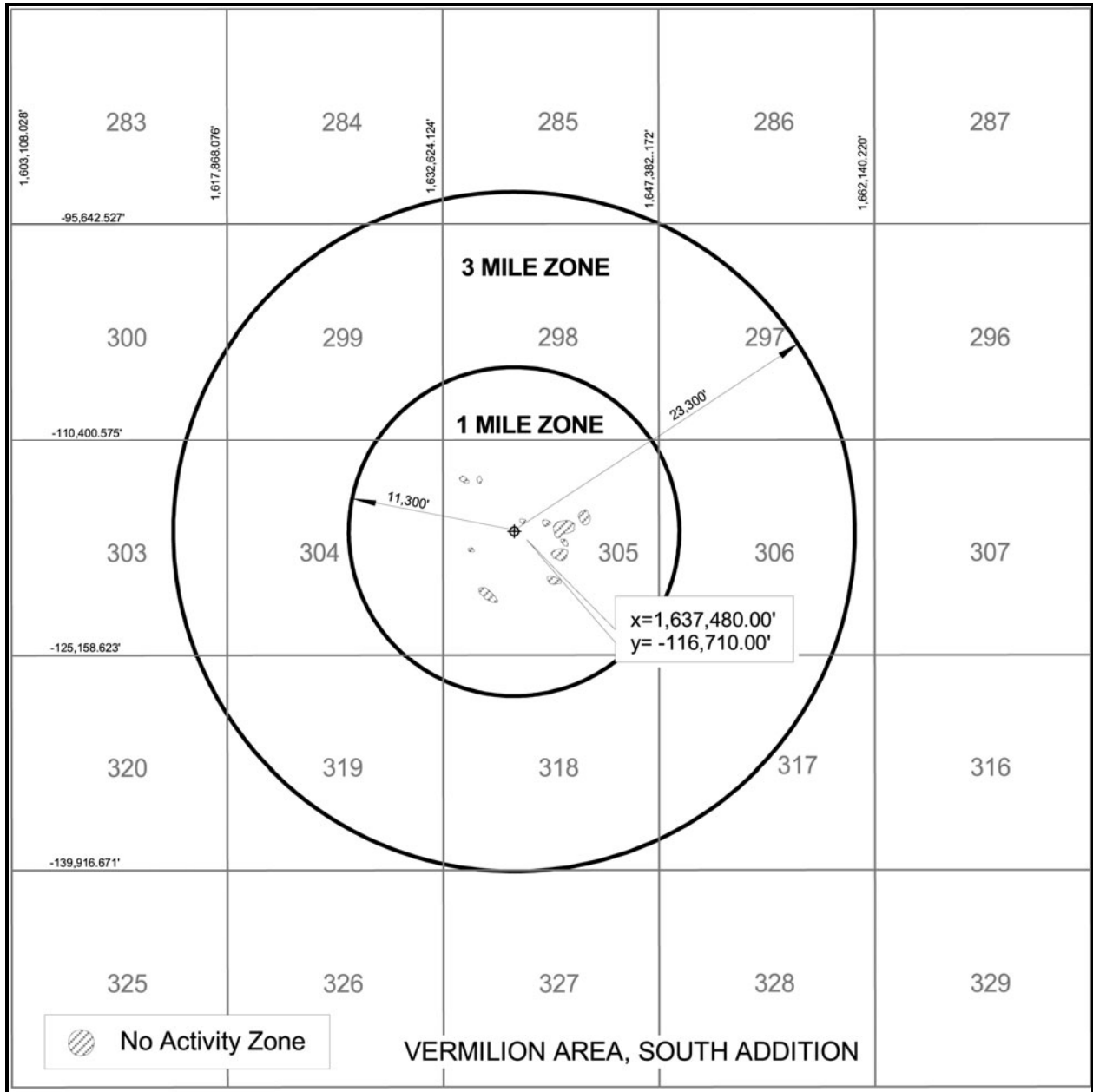


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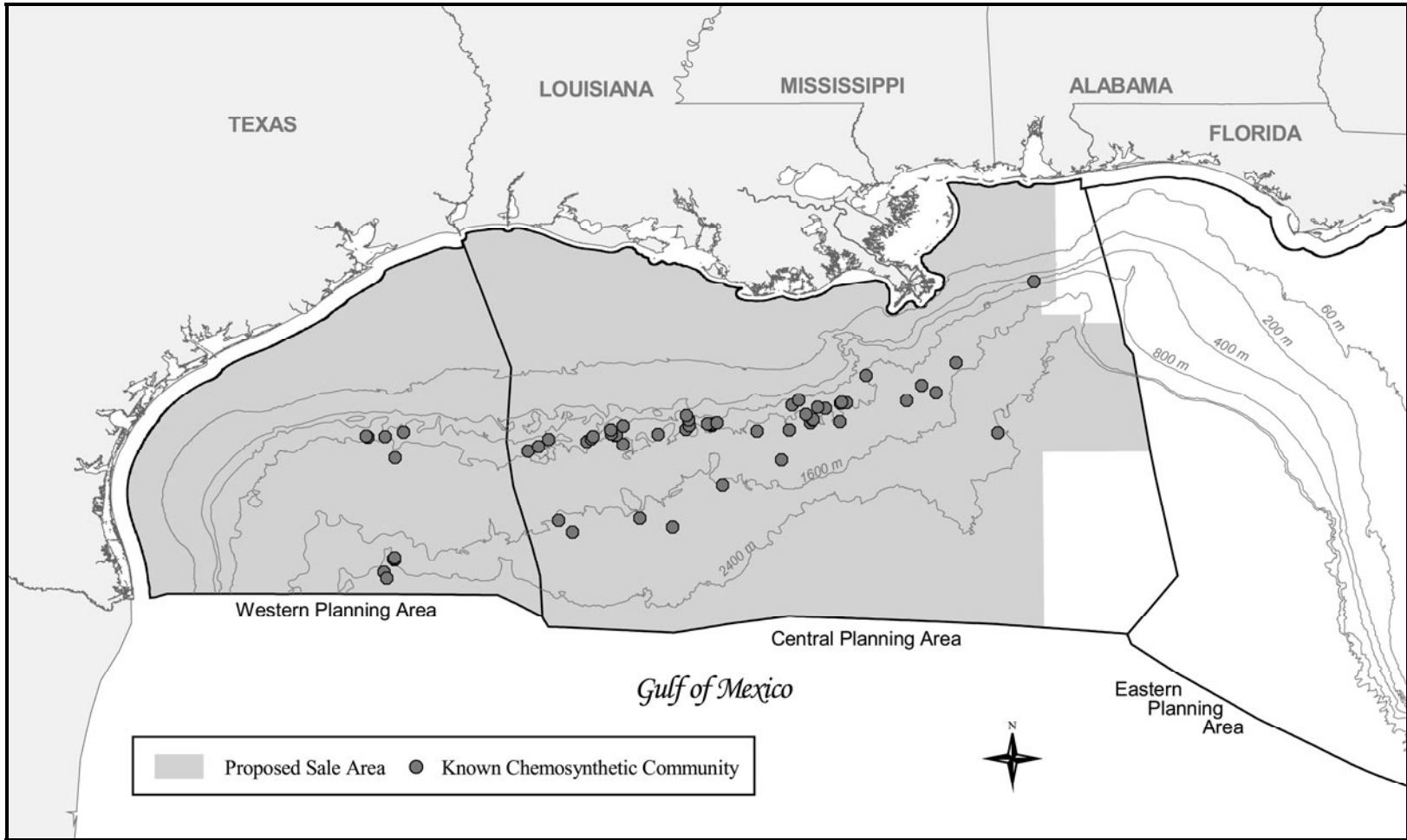


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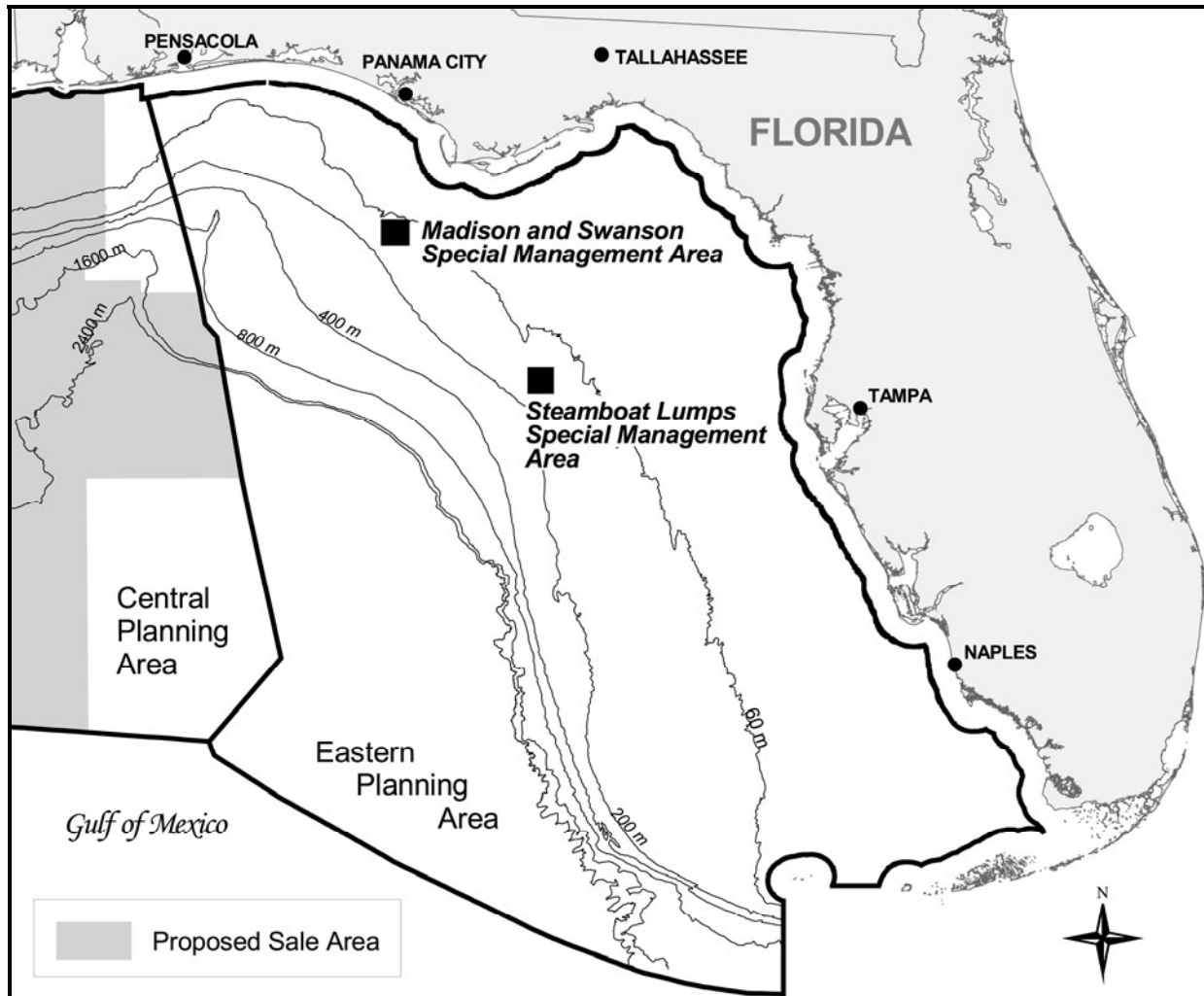


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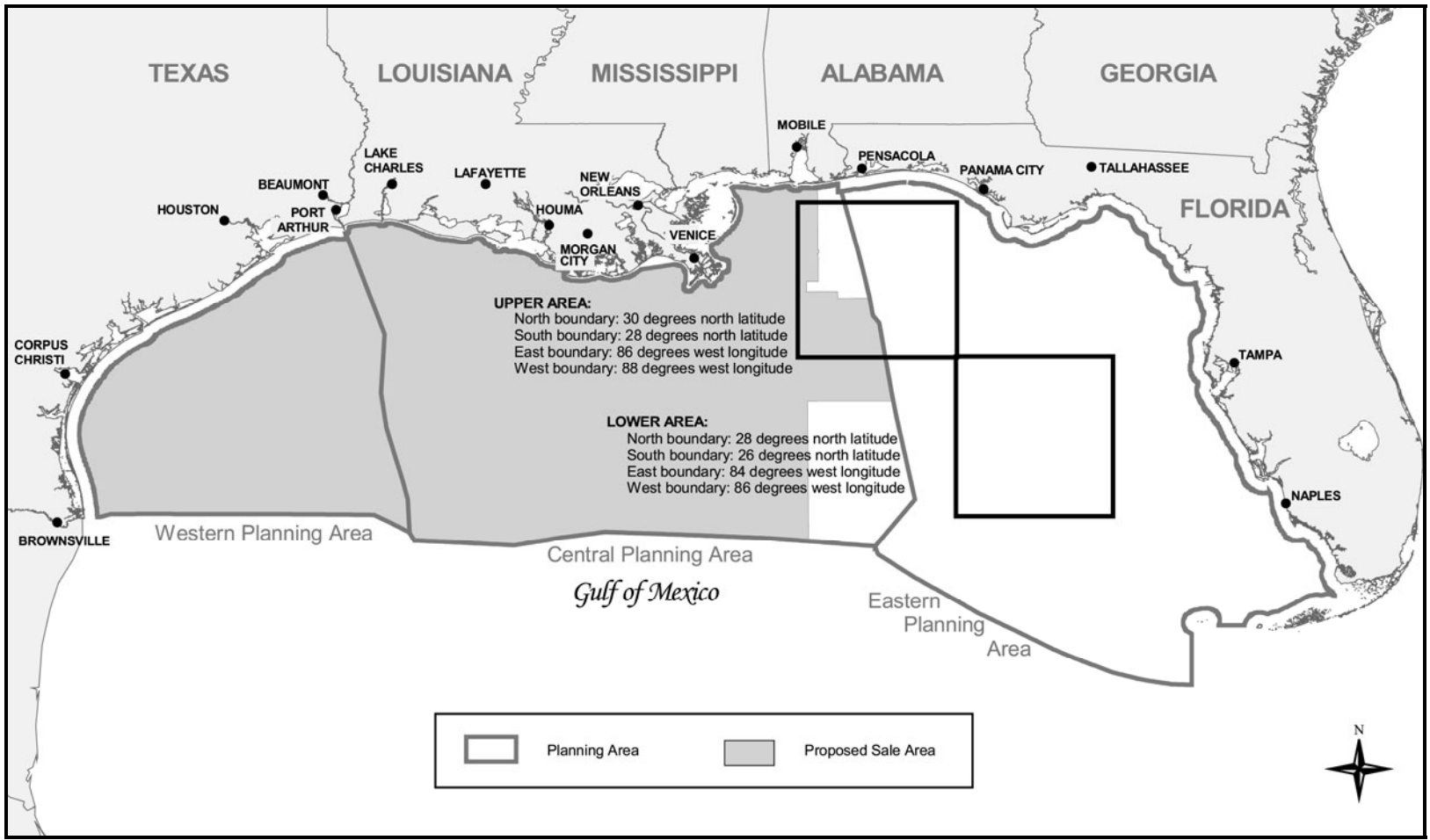


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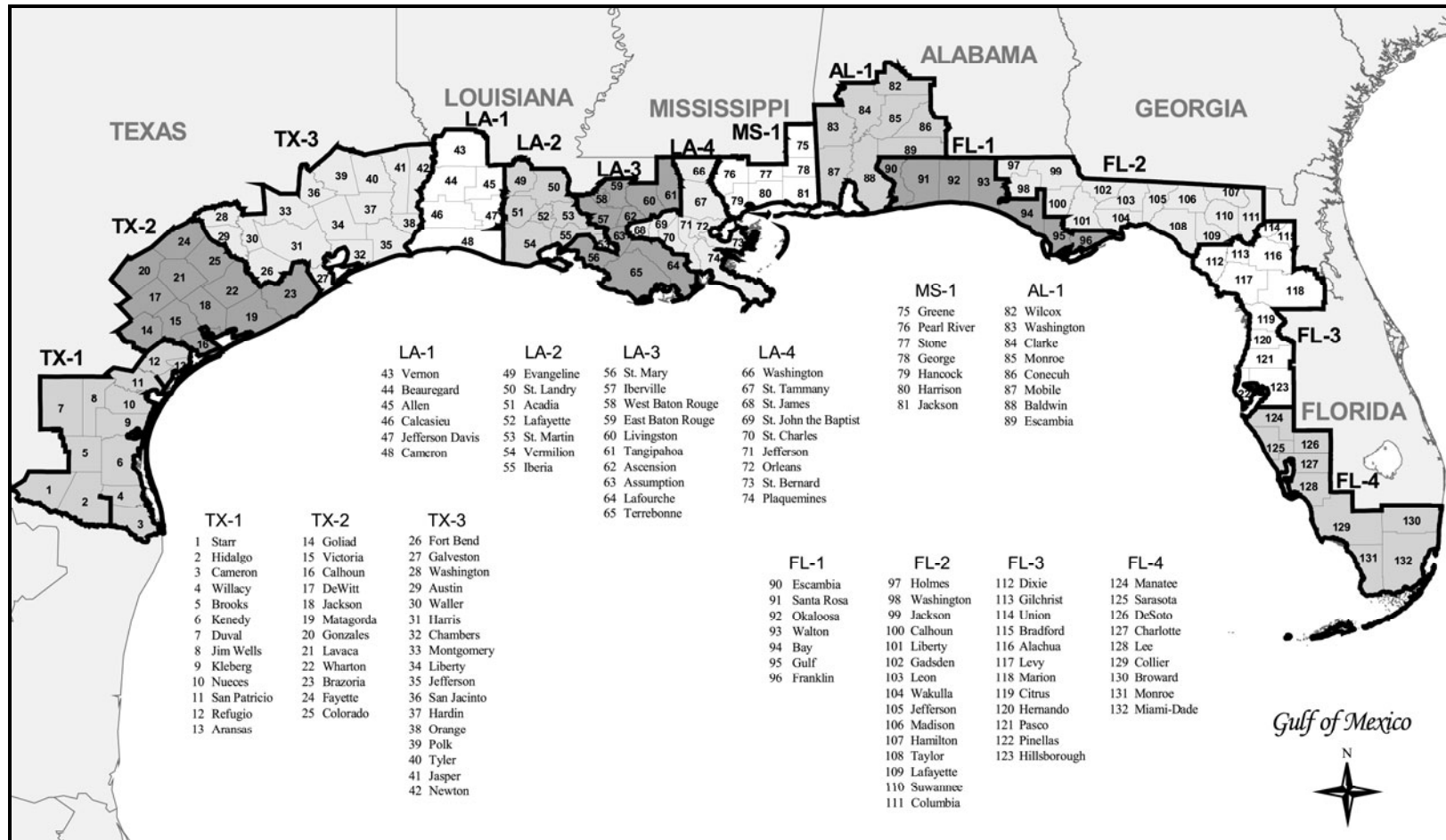
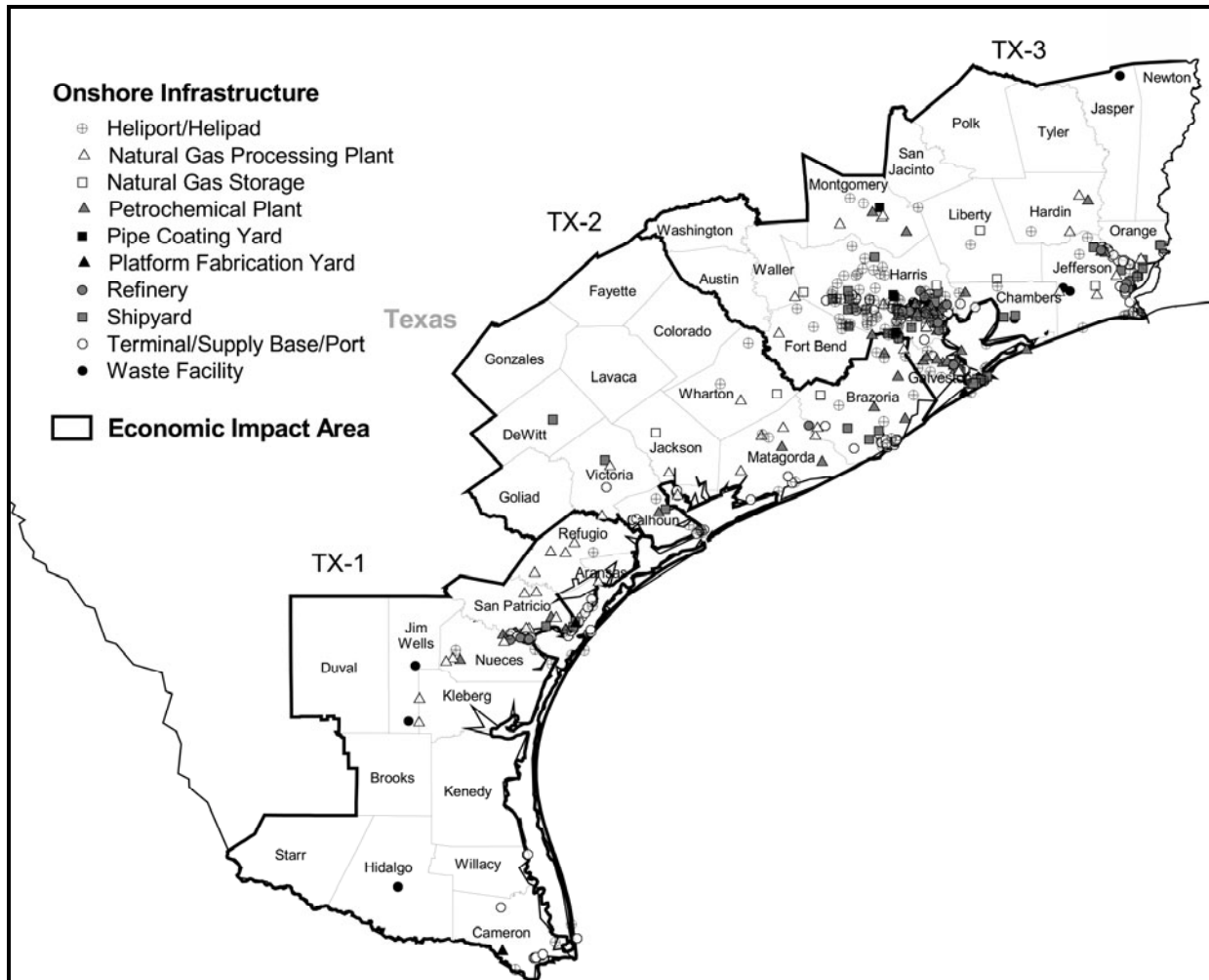


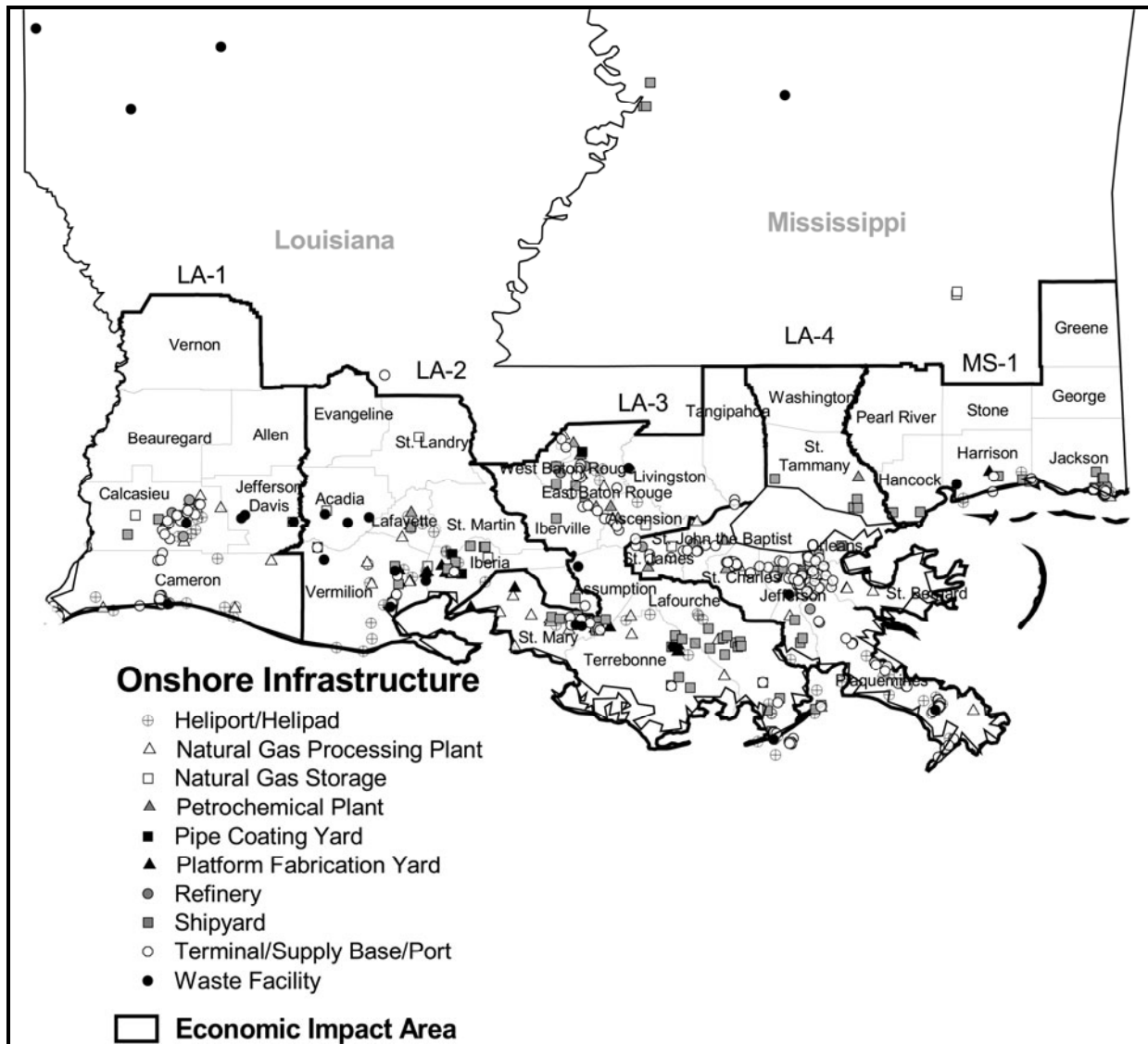
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Source: Louis Berger Group, Inc., 2004.

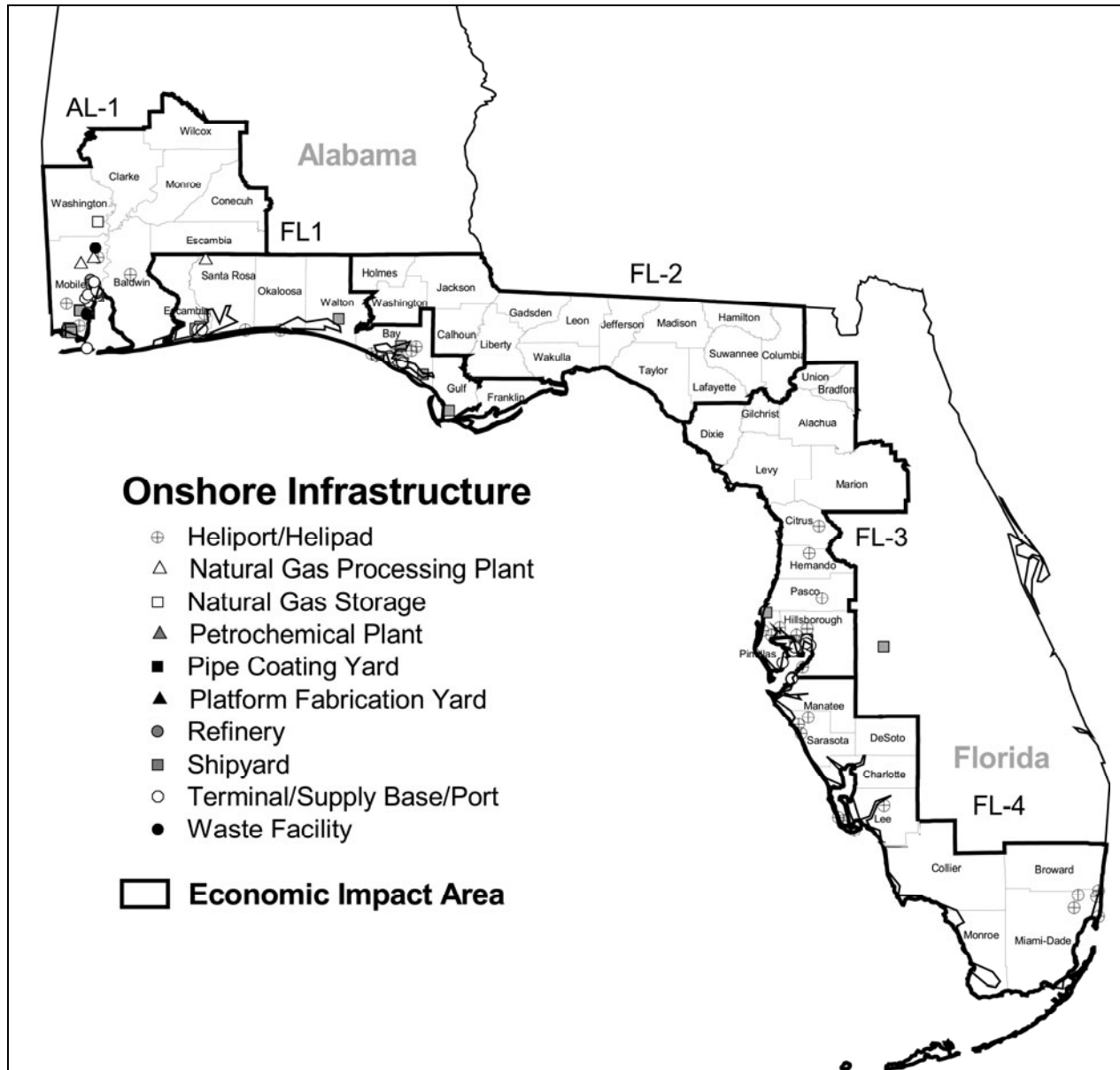
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Source: Louis Berger Group, Inc., 2004.

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Source: Louis Berger Group, Inc., 2004.

Figure 3-15. Onshore Infrastructure Located in Alabama and Florida.

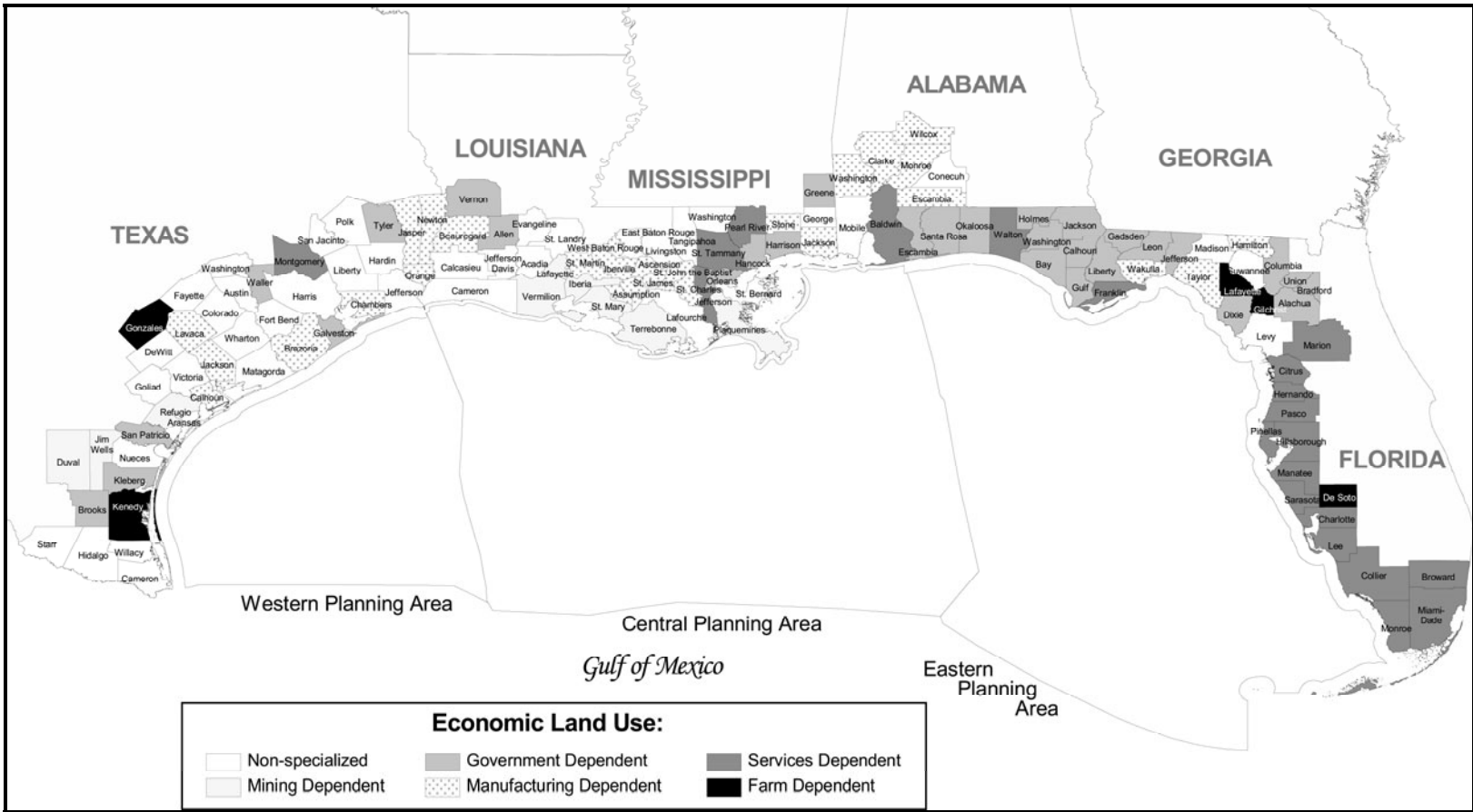


Figure 3-16. Economic Land Use Patterns.

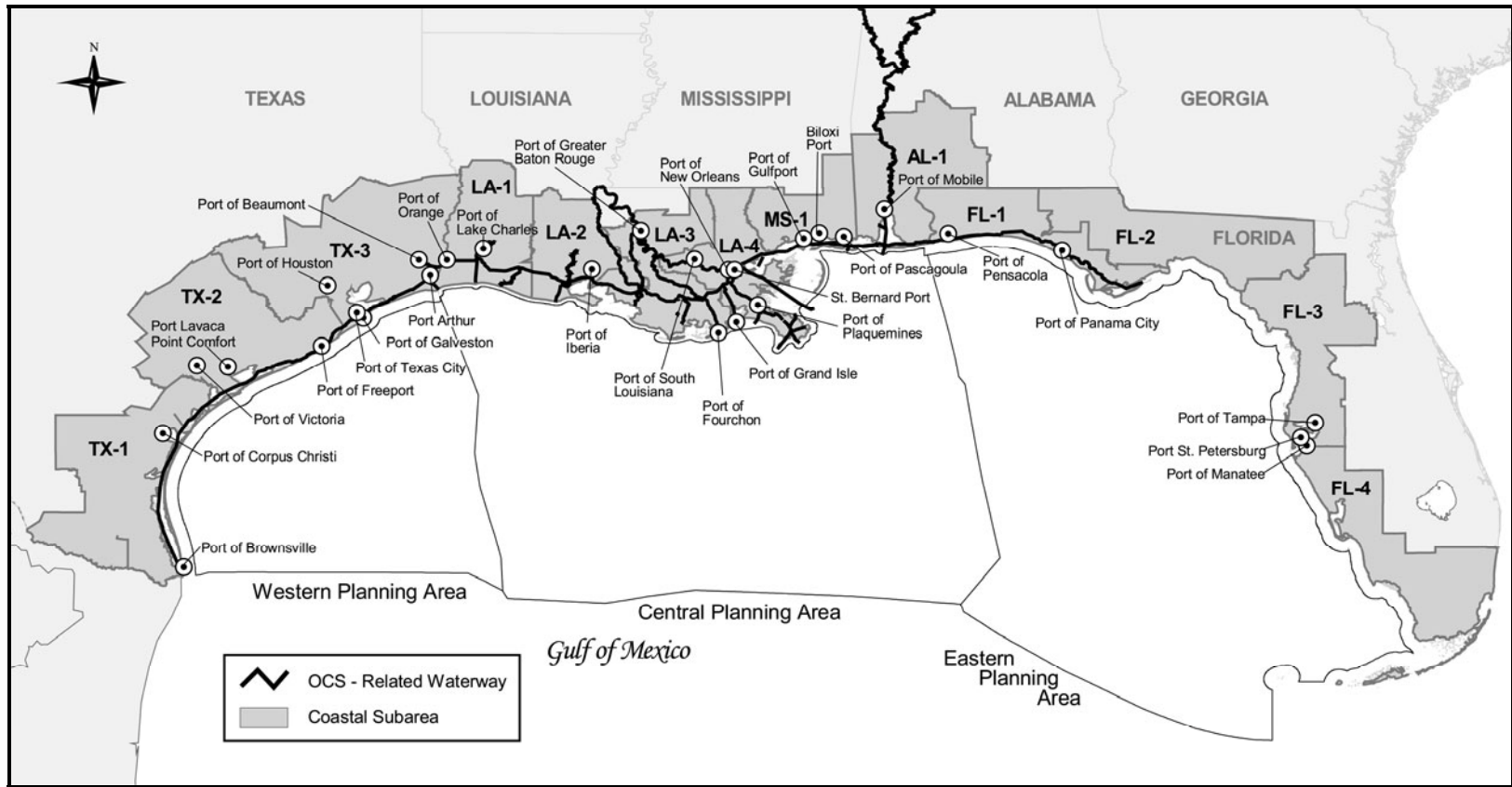
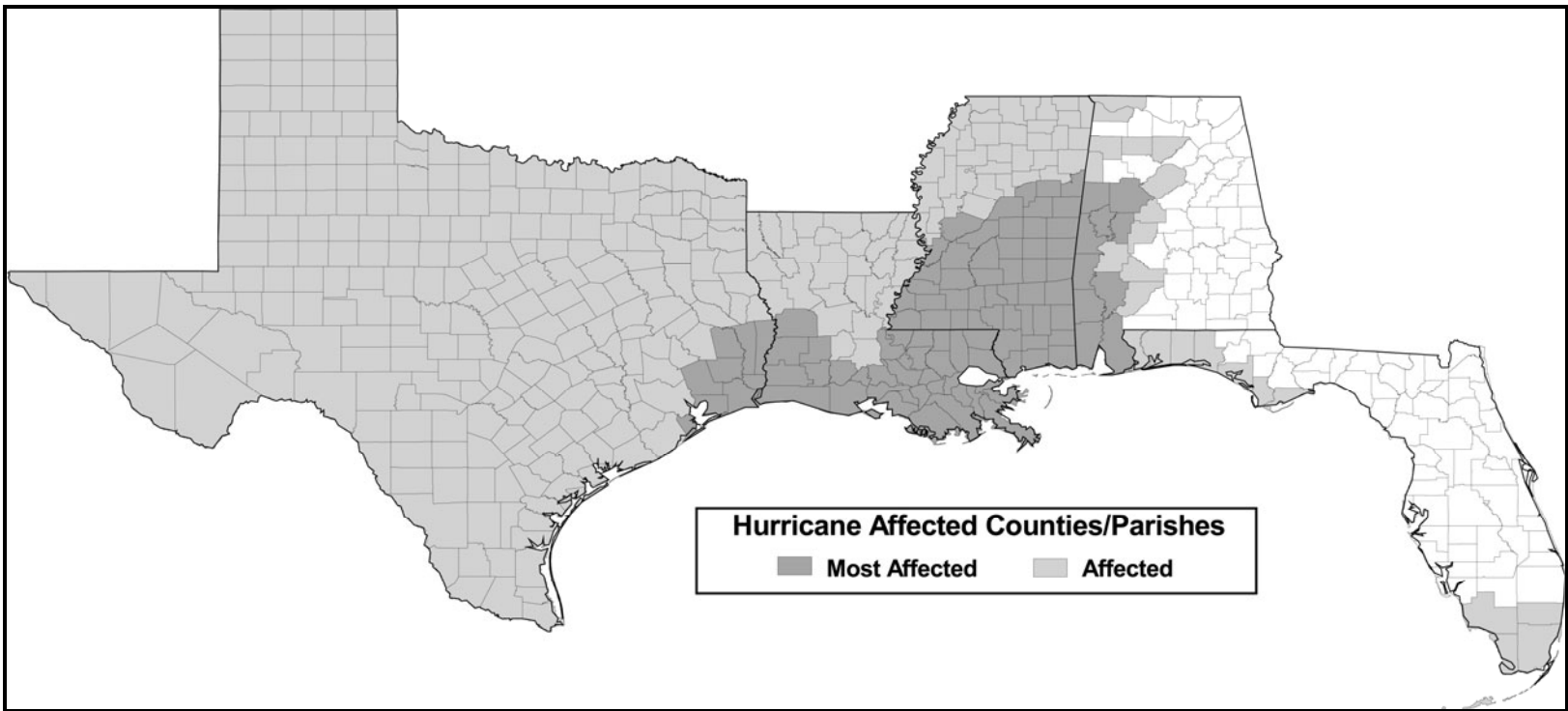


Figure 3-17. Major Ports and Domestic Waterways in the Gulf of Mexico.



Source: U.S. Dept. of Labor, Bureau of Labor Statistics, 2006.

Figure 3-18. Counties and Parishes Designated for FEMA Assistance Following Hurricanes Katrina and Rita.

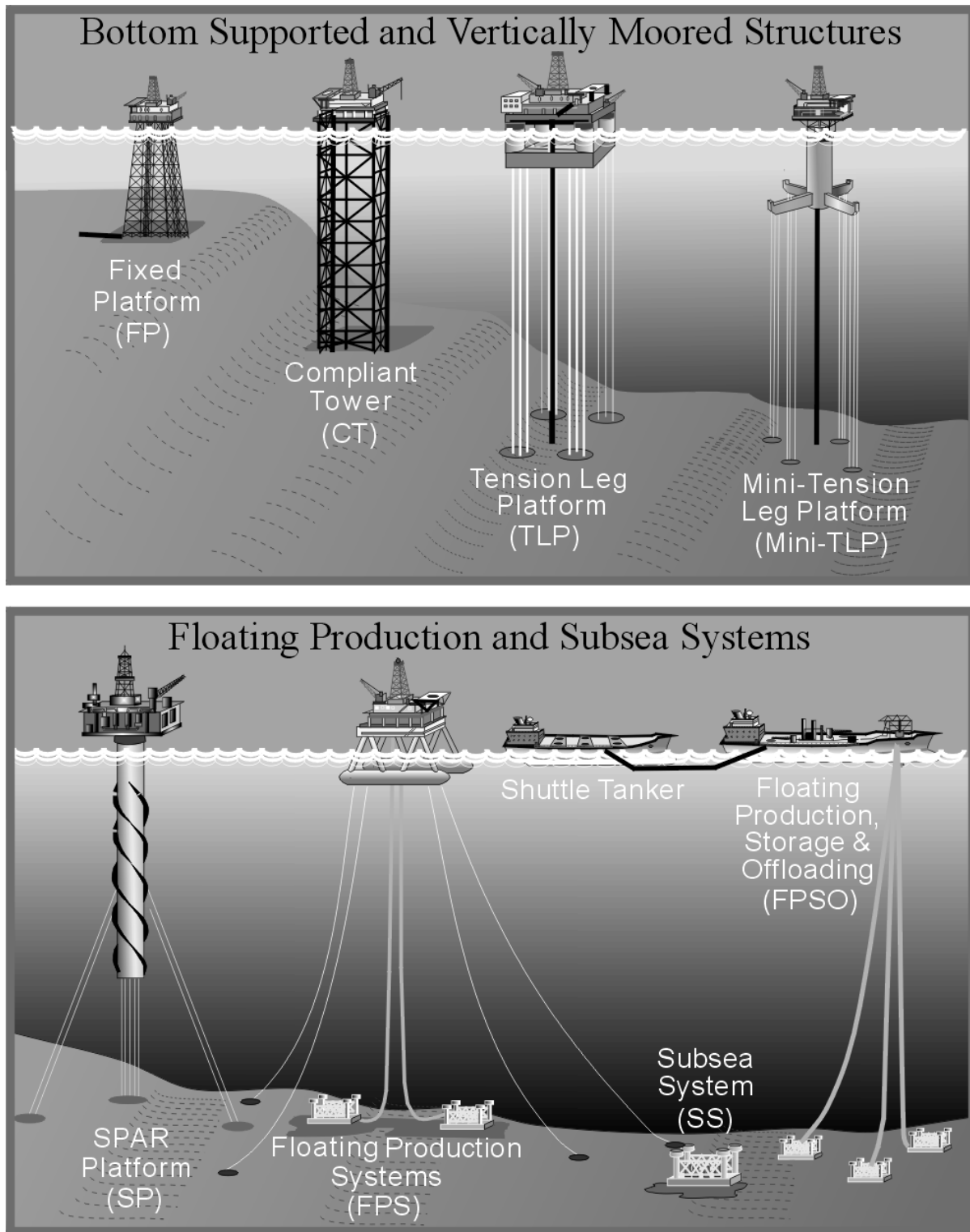


Figure 3-19. Types of Deepwater Production Structures.

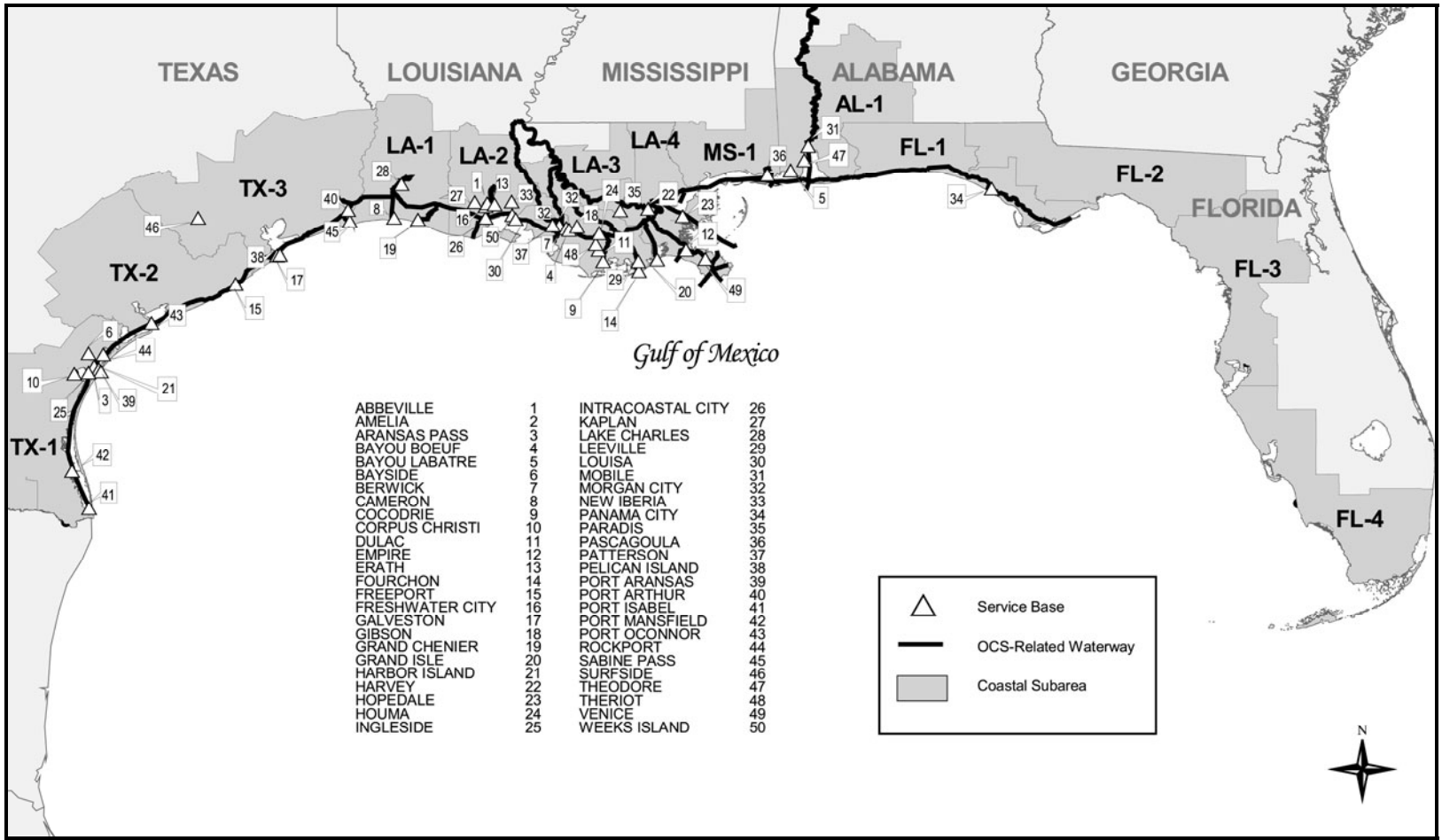


Figure 3-20. OCS-Related Service Bases in the Gulf of Mexico.



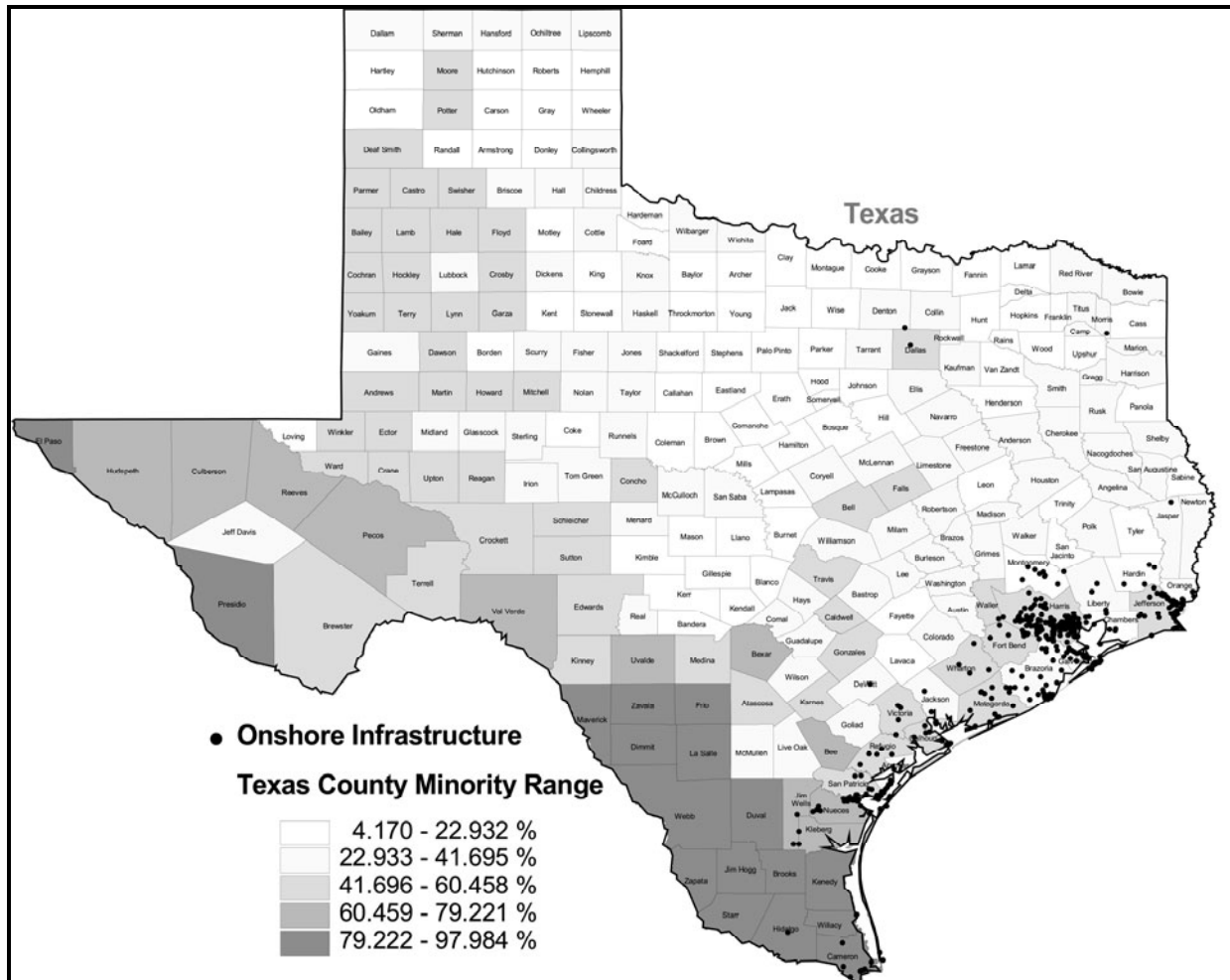


Figure 3-21. Percentage of Minority Population by County in Texas.



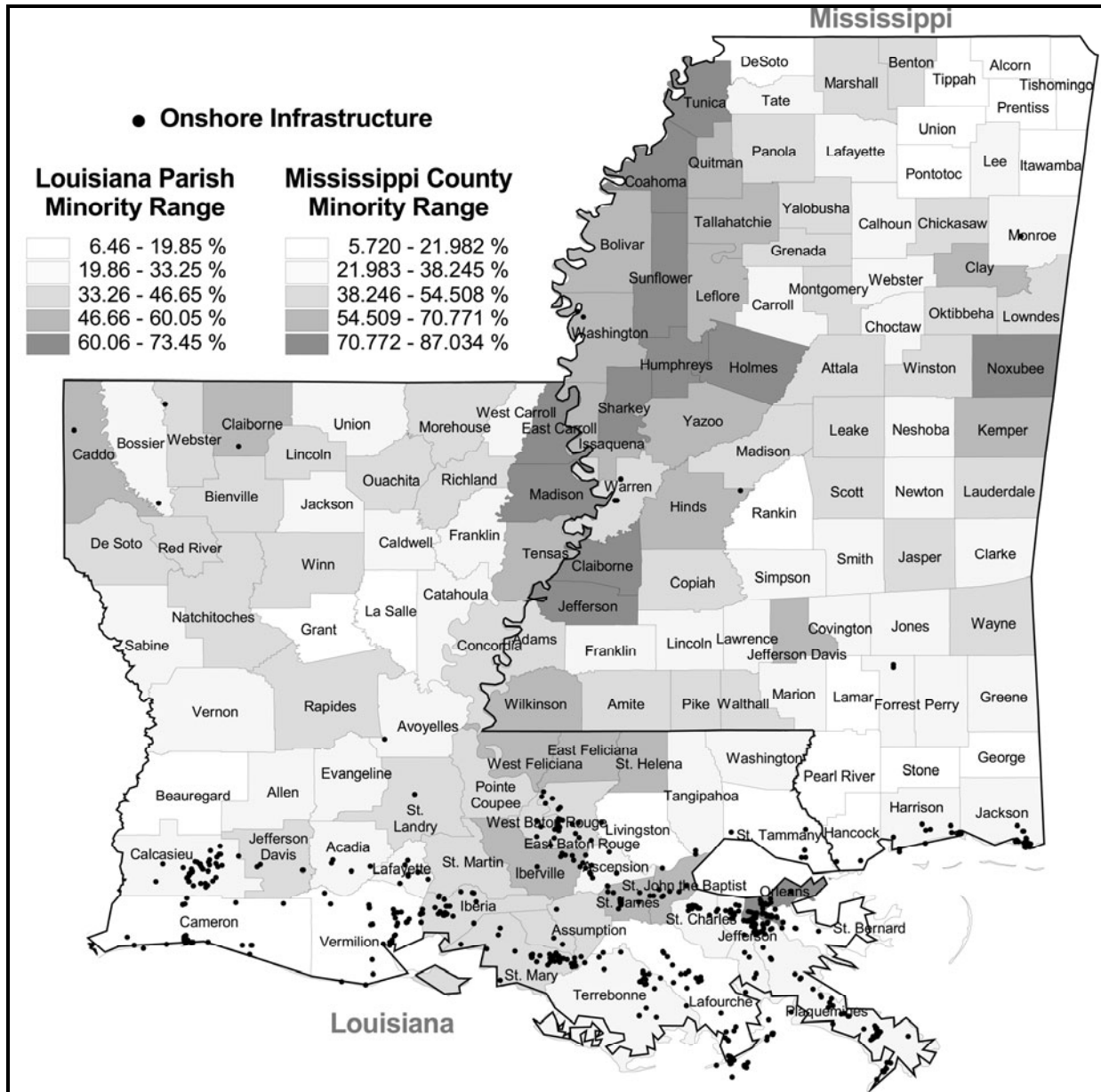


Figure 3-22. Percentage of Minority Population by Parish in Louisiana and by County in Mississippi.

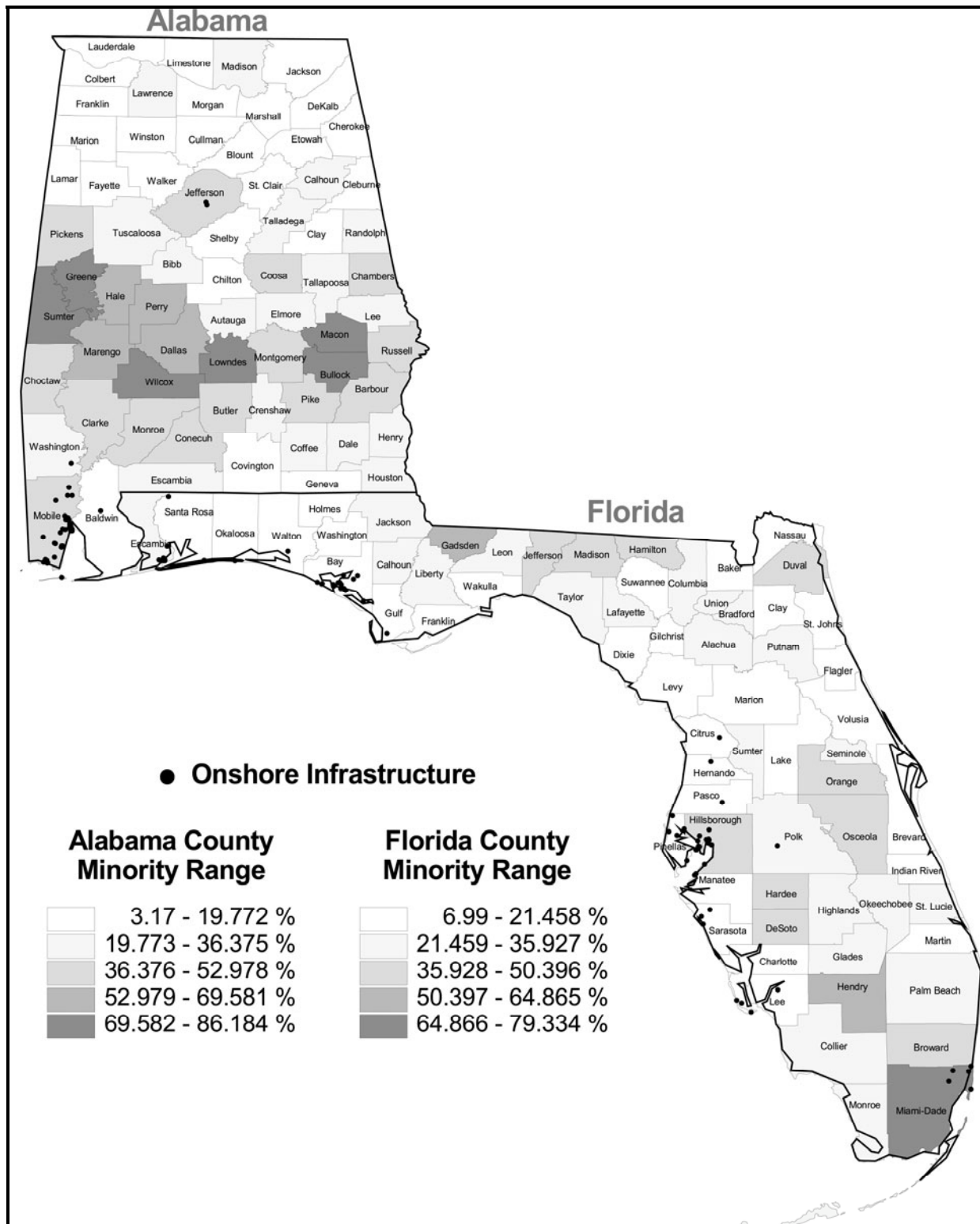


Figure 3-23. Percentage of Minority Population by County in Alabama and Florida.

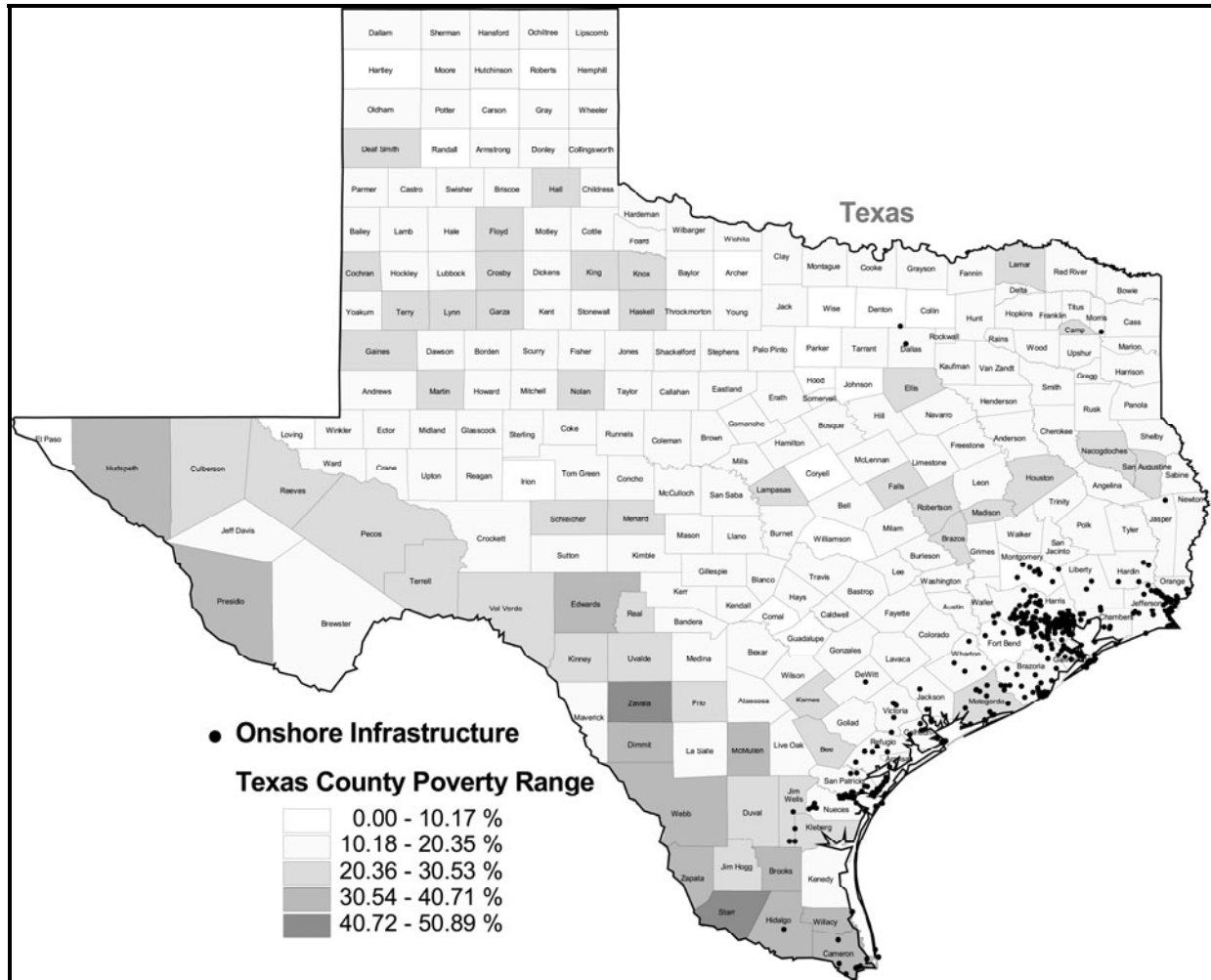


Figure 3-24. Percentage of Poverty by County in Texas.

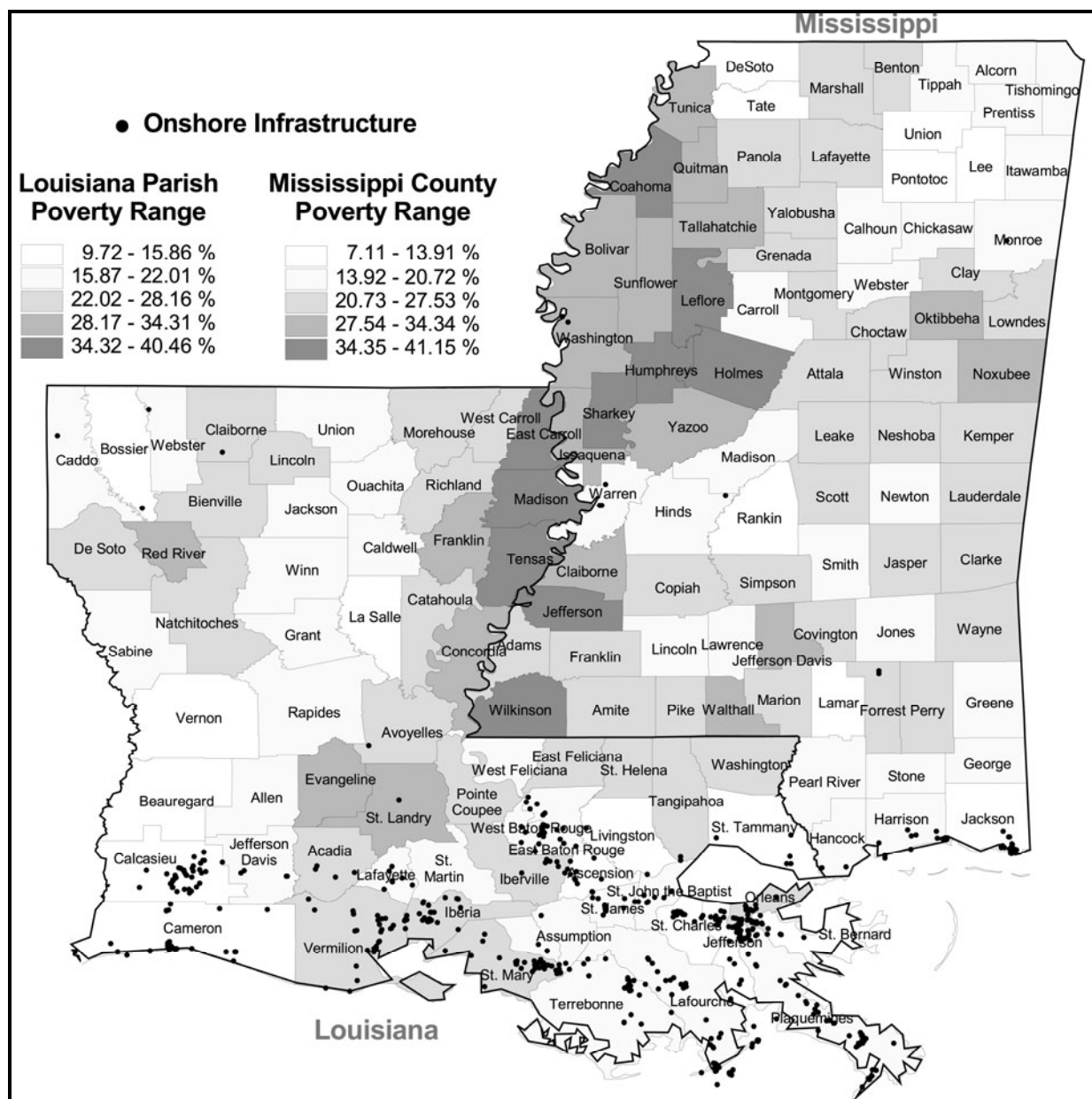


Figure 3-25. Percentage of Poverty by Parish in Louisiana and by County in Mississippi.

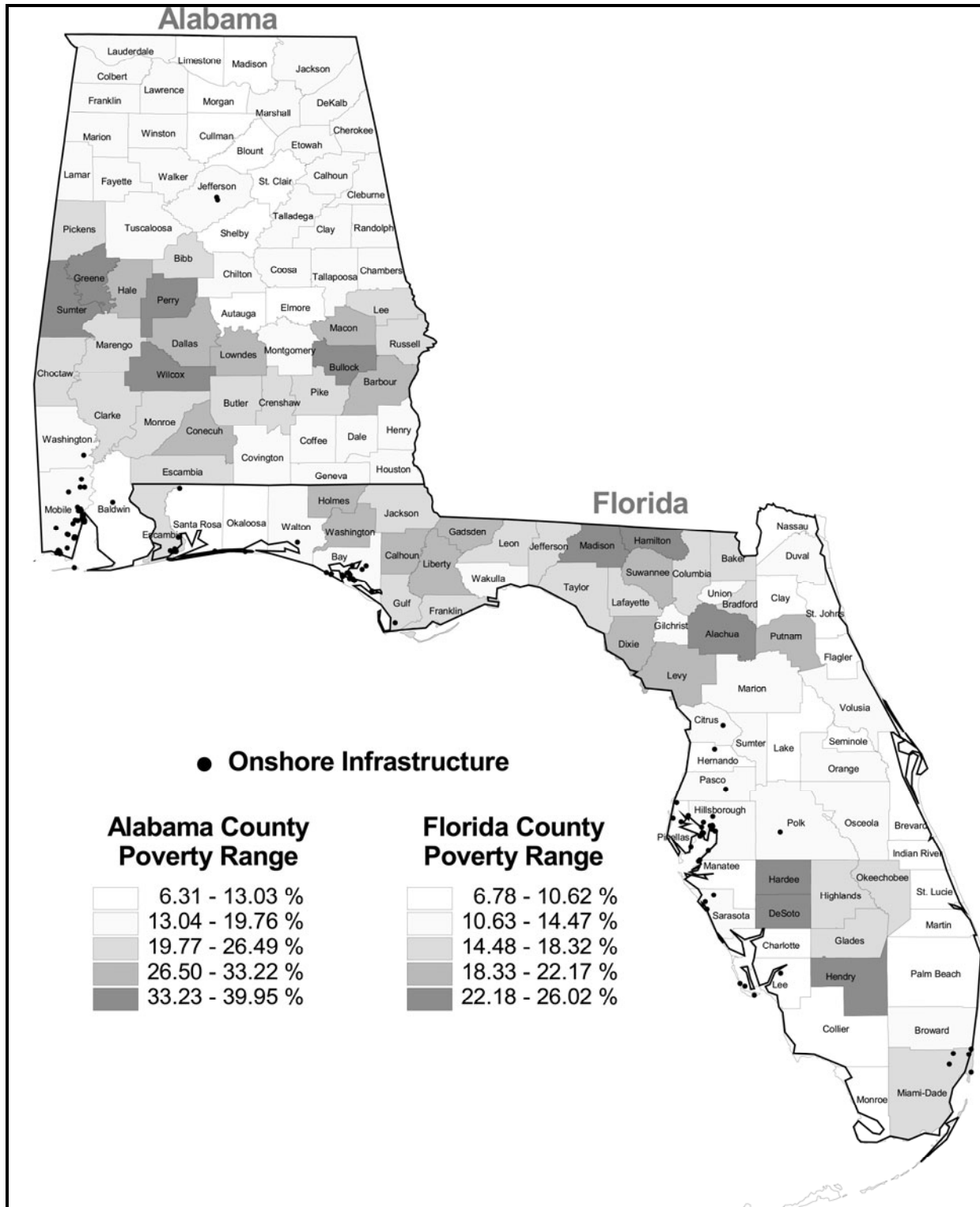


Figure 3-26. Percentage of Poverty by County in Alabama and Florida.



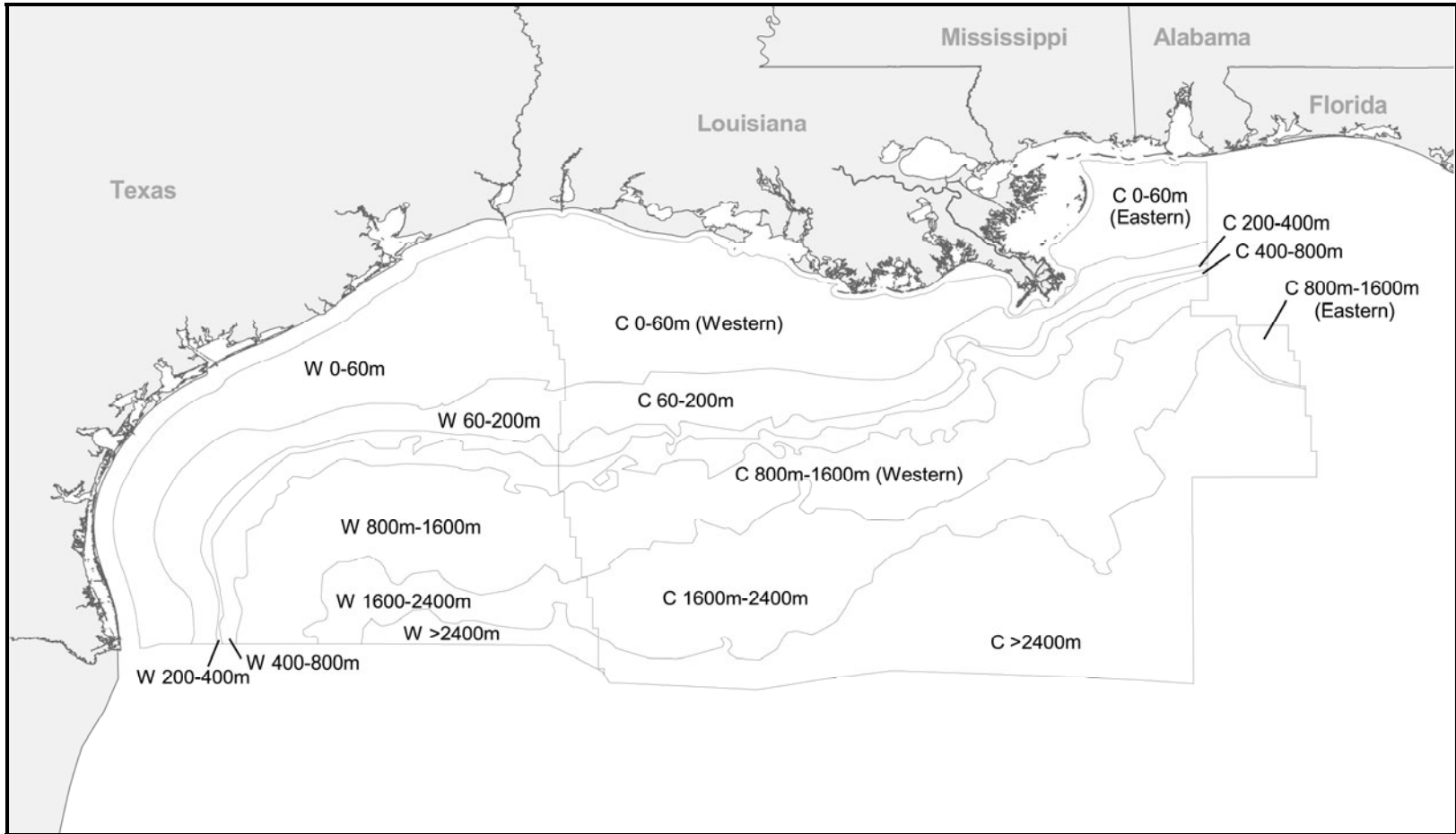


Figure 4-1. Offshore Subareas in the Gulf of Mexico.

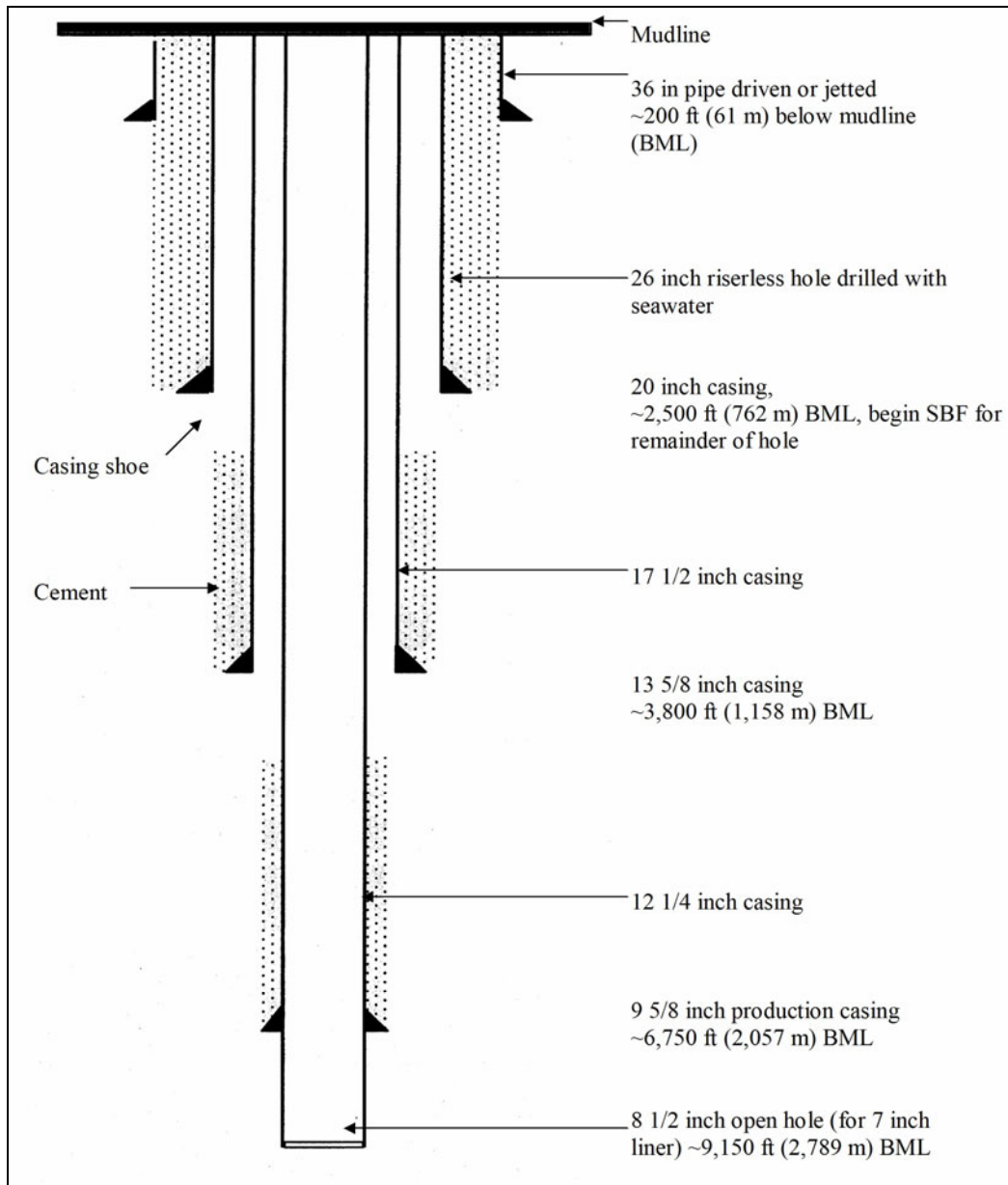


Figure 4-2. Generic Well Schematic.

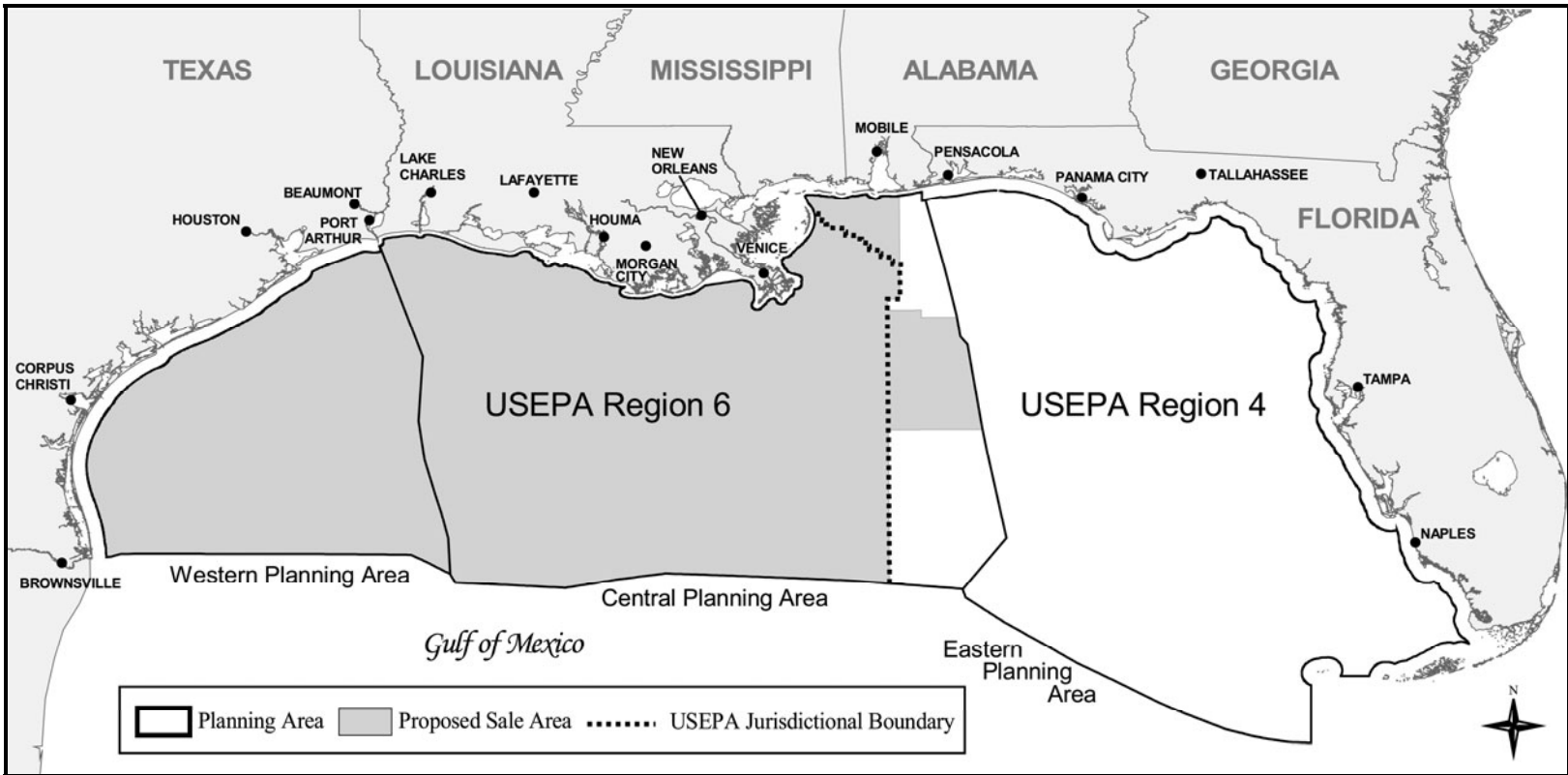


Figure 4-3. USEPA Regions 4 and 6 Jurisdictional Boundaries.



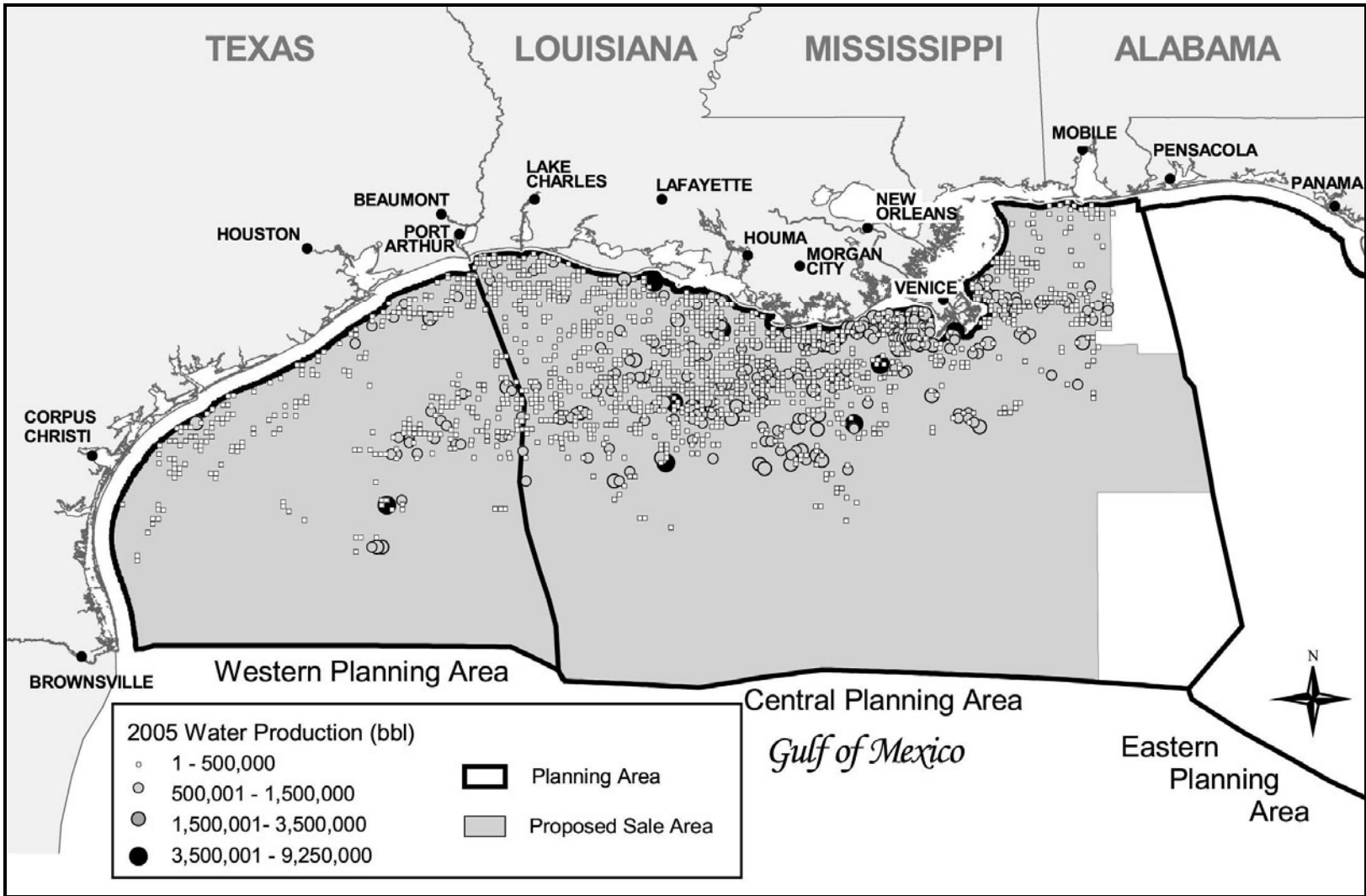


Figure 4-4. Produced Water Extracted in the Gulf of Mexico in 2005.

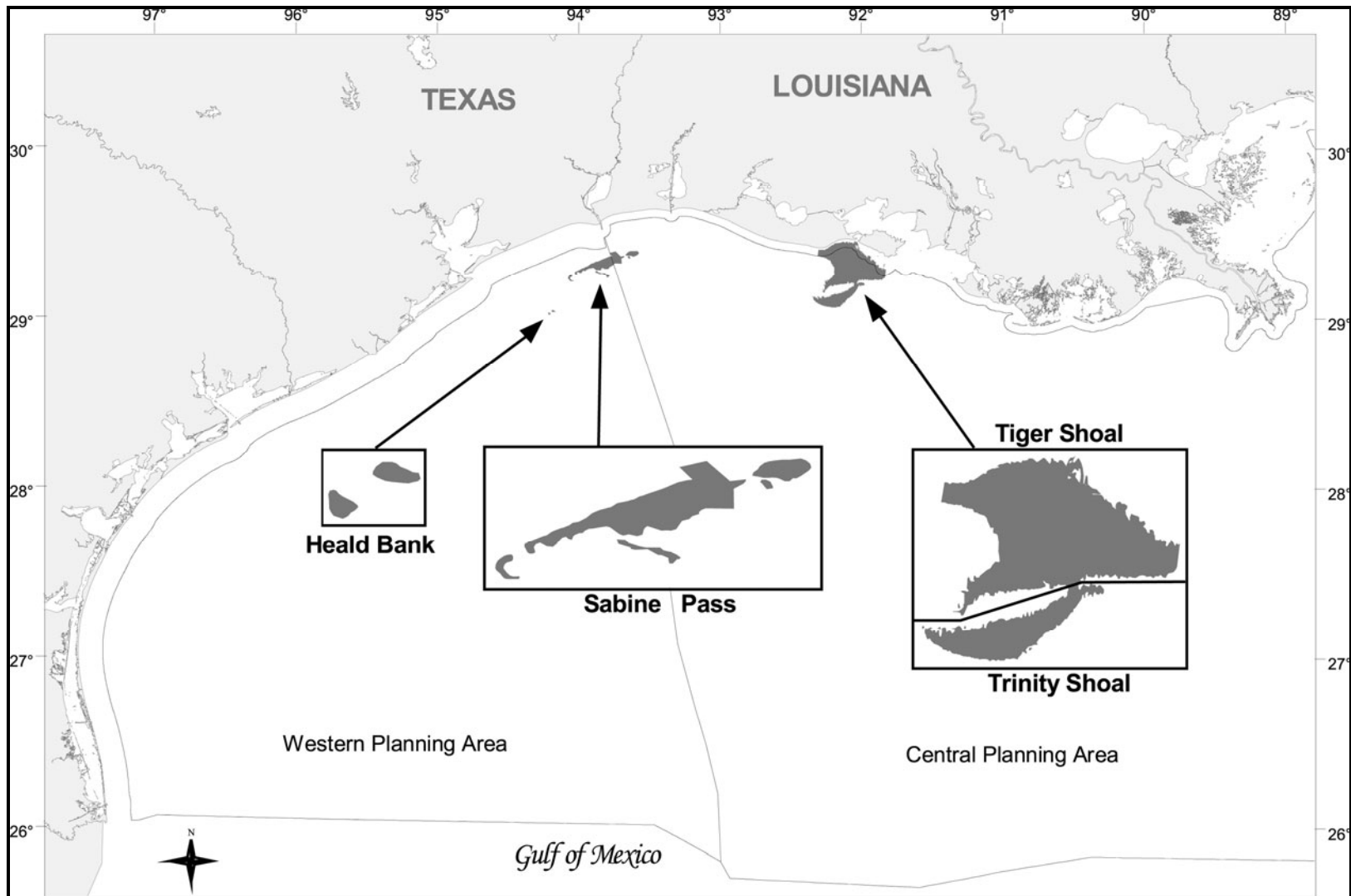


Figure 4-5. Location of Sand Bank/Shoal Study Areas.

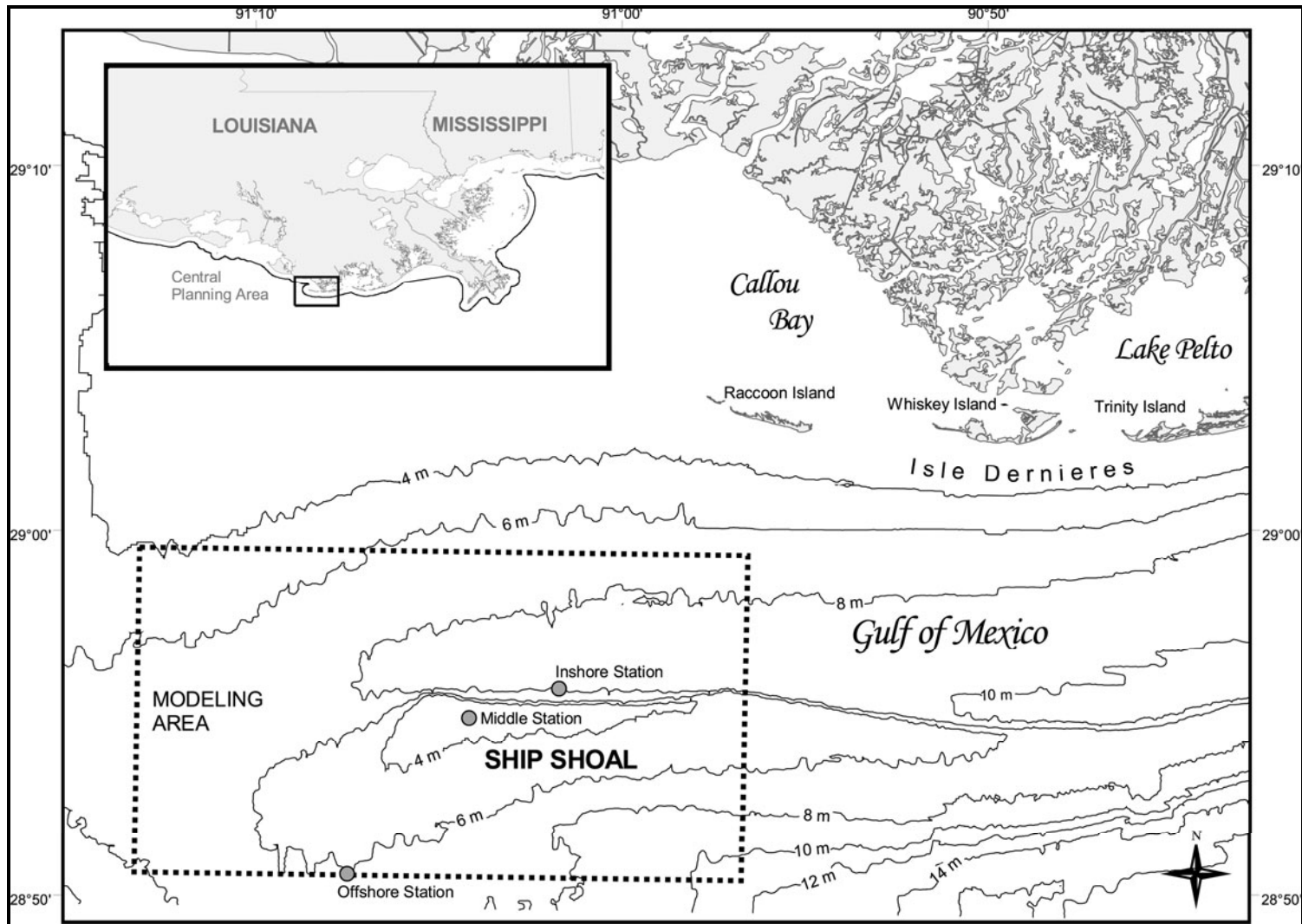


Figure 4-6. Location of Ship Shoal.

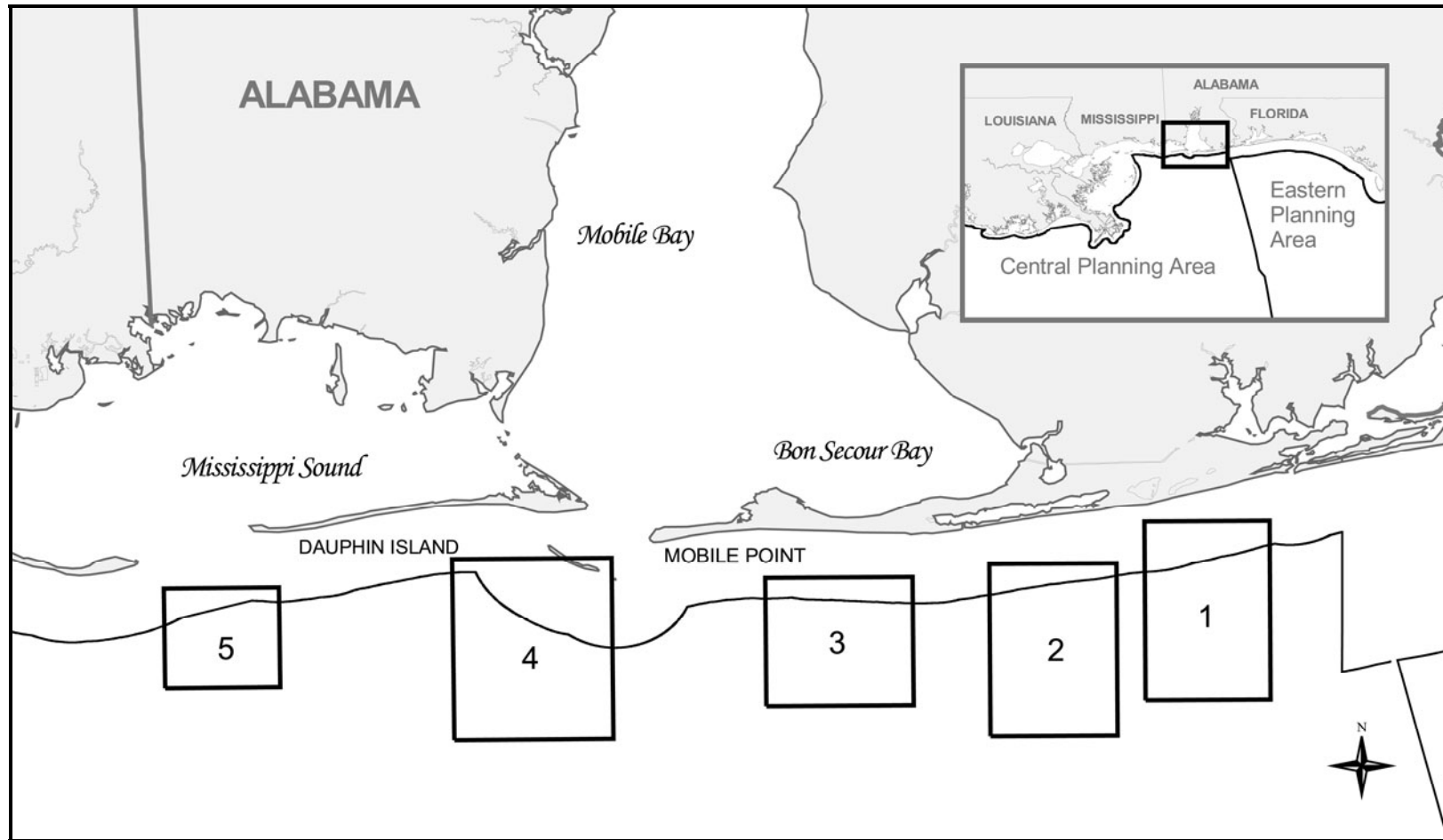


Figure 4-7. Location of Identified Sand Resource Sites Offshore Alabama.

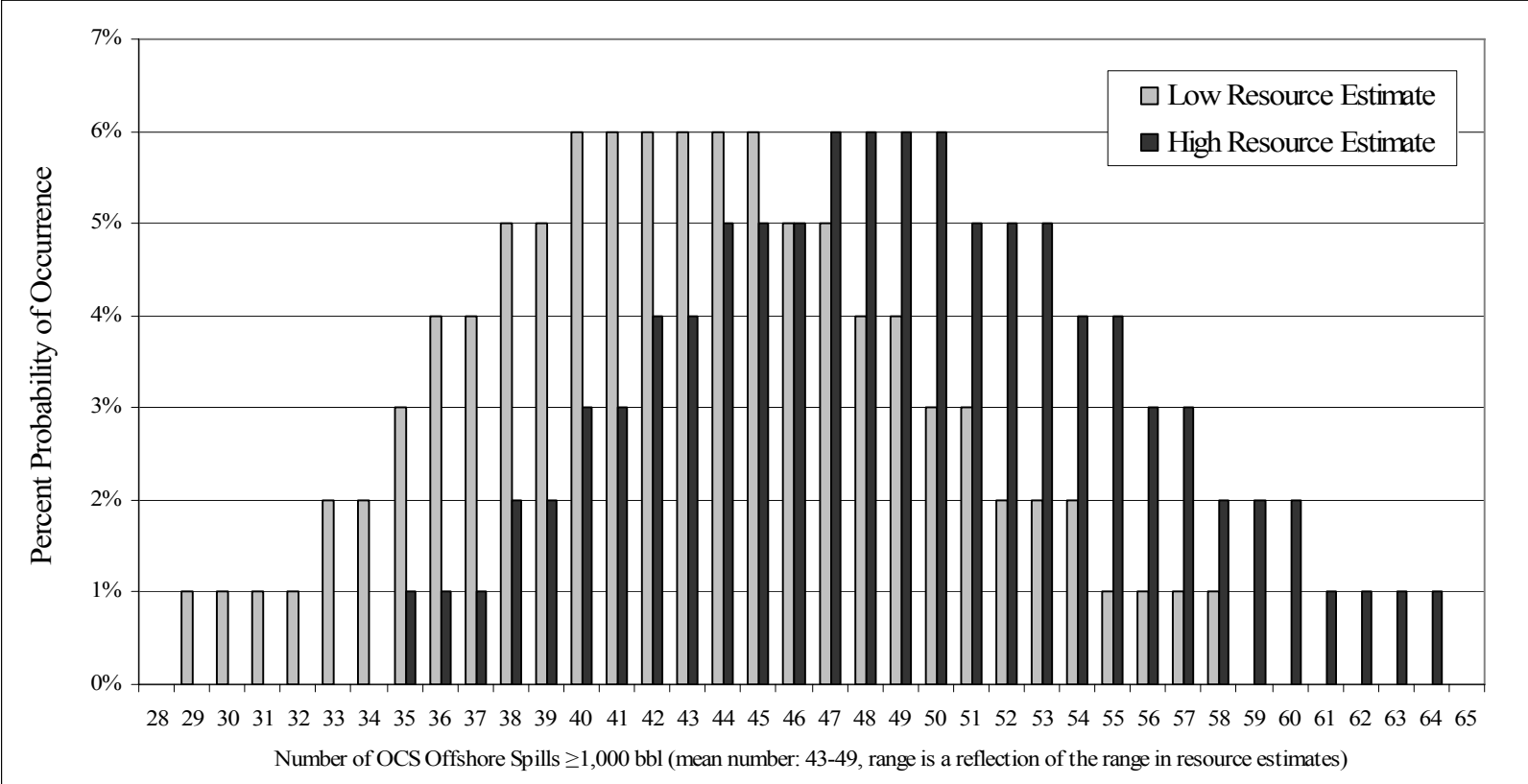


Figure 4-8. Probability of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of OCS Program Operations Gulfwide during the Years 2007-2046.

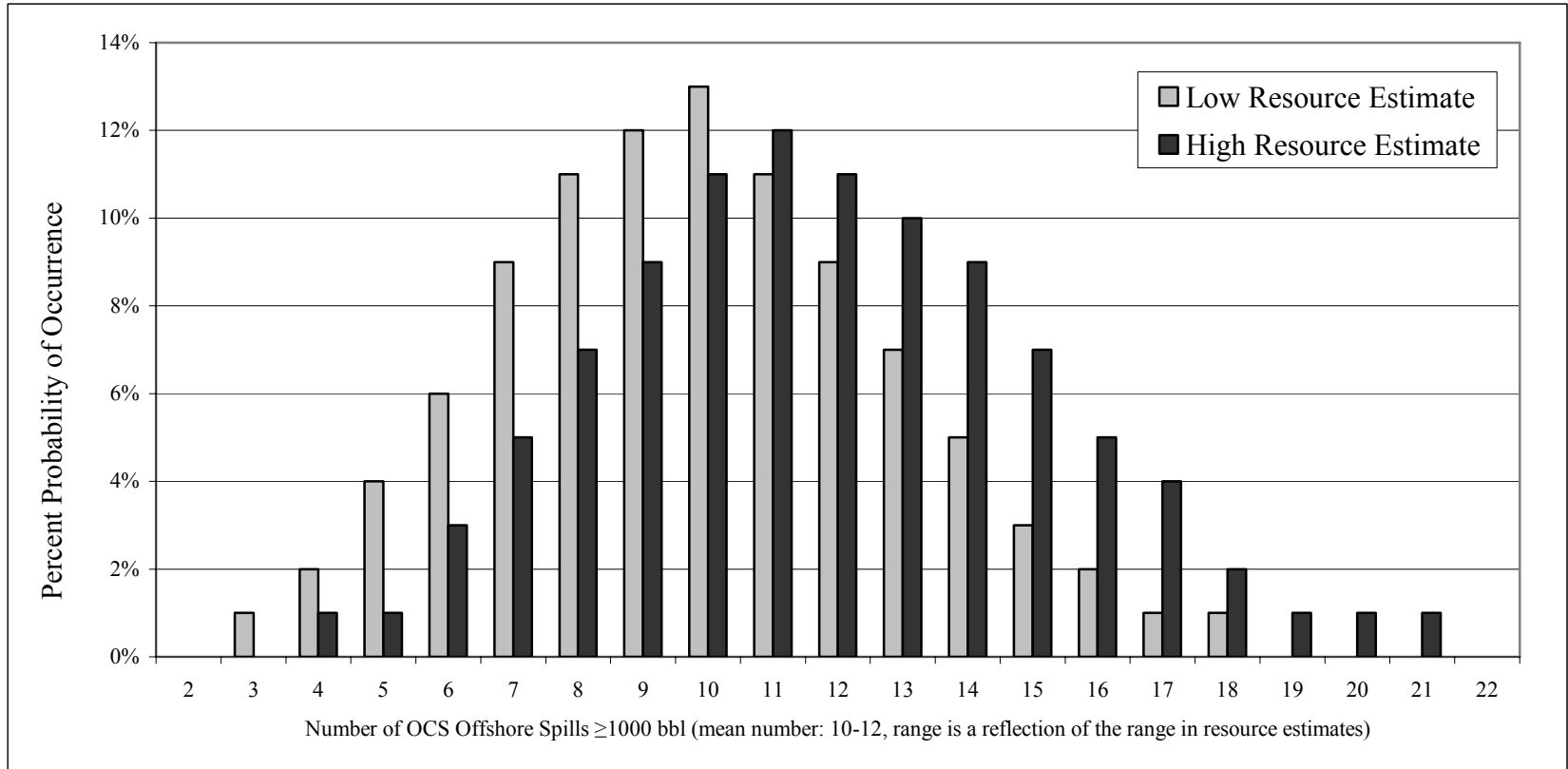


Figure 4-9. Probability of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of OCS Program Operations in the Western Planning Area during the Years 2007-2046.

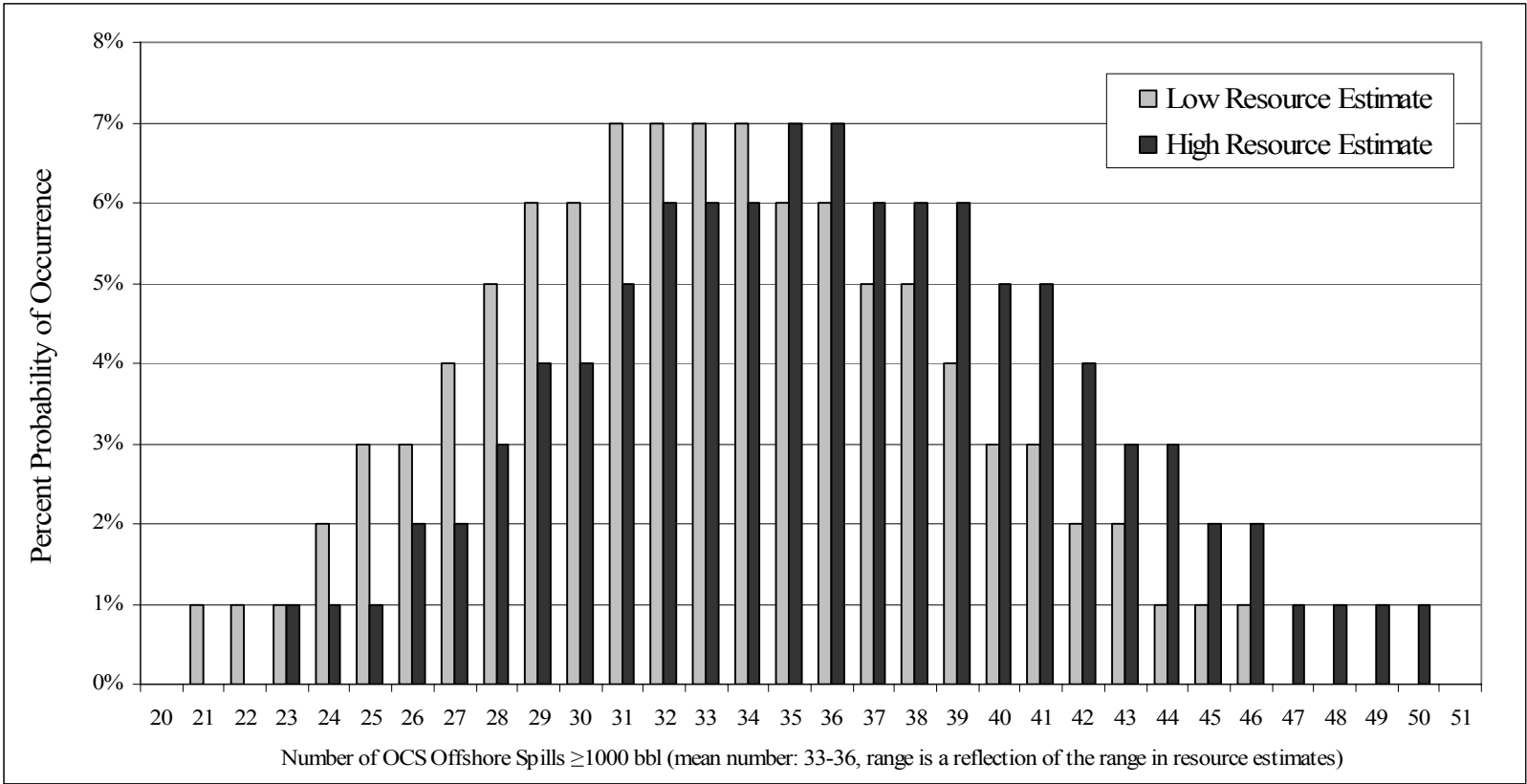


Figure 4-10. Probability of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of OCS Program Operations in the Central Planning Area during the Years 2007-2046.

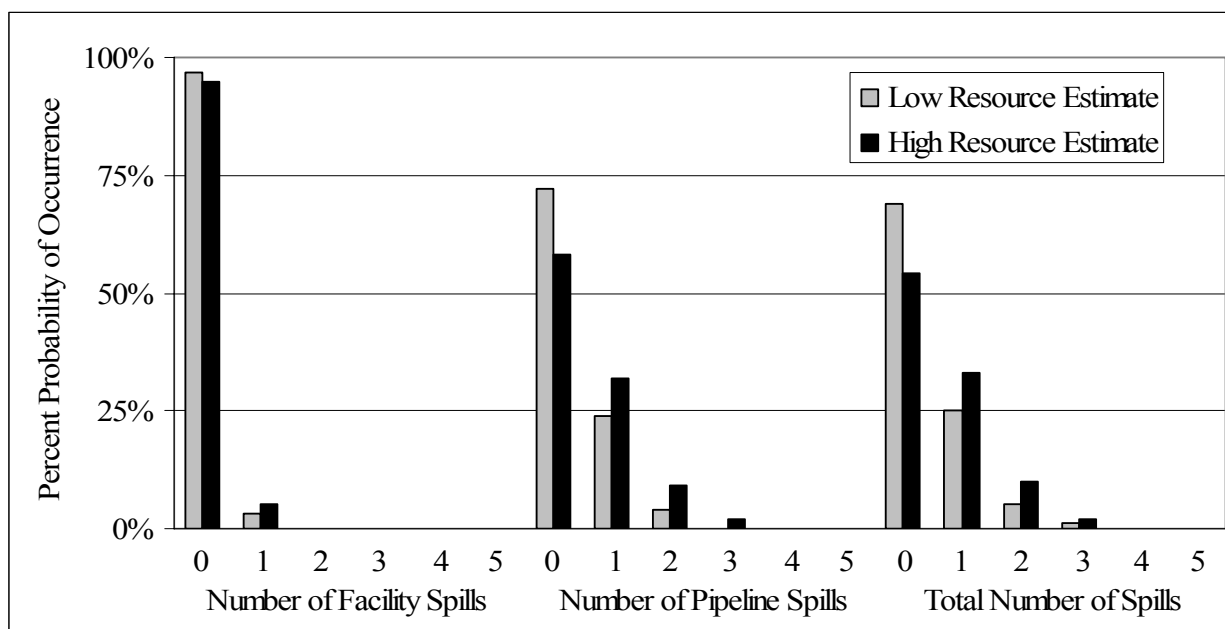


Figure 4-11. Probability (percent chance) of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of Either Facility or Pipeline Operations Related to a WPA Proposed Action.

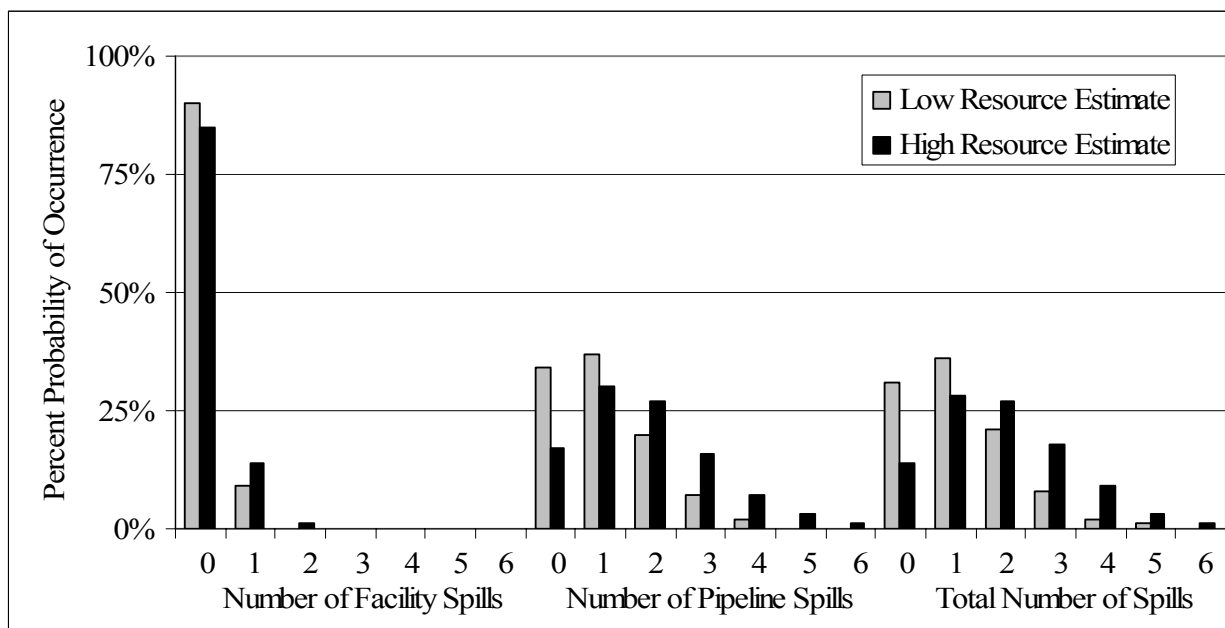


Figure 4-12. Probability (percent chance) of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of Either Facility or Pipeline Operations Related to a CPA Proposed Action.



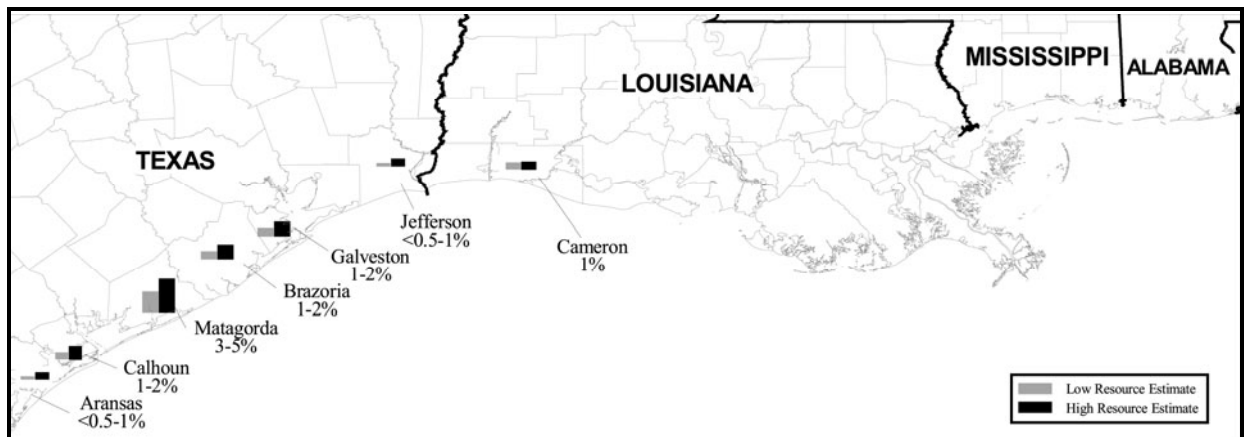


Figure 4-13. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days the Shoreline (counties and parishes) as a Result of a Proposed Action in the Western Planning Area (only counties and parishes with greater than a 0.5% risk of contact within 10 days are shown).

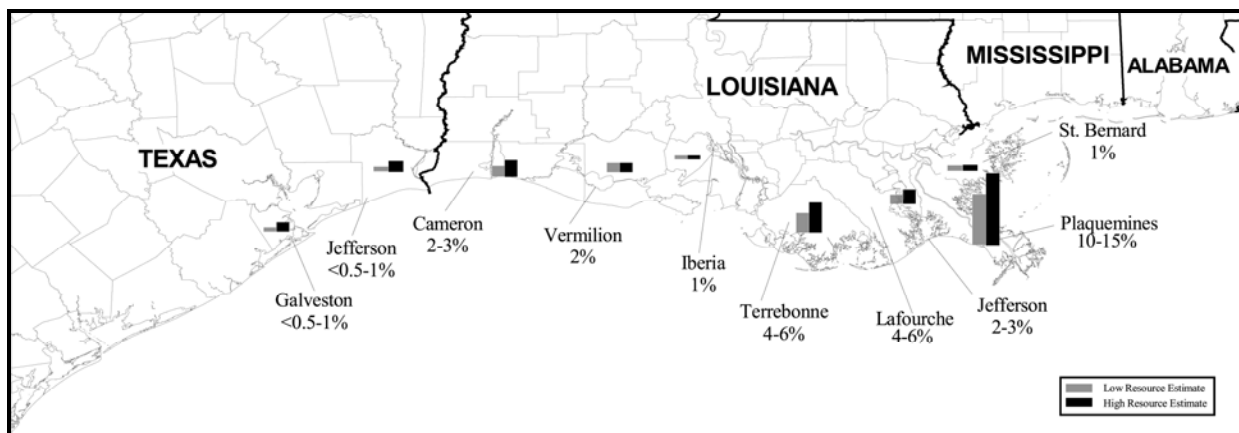


Figure 4-14. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days the Shoreline (counties and parishes) as a Result of a Proposed Action in the Central Planning Area (only counties and parishes with greater than a 0.5% risk of contact within 10 days are shown).

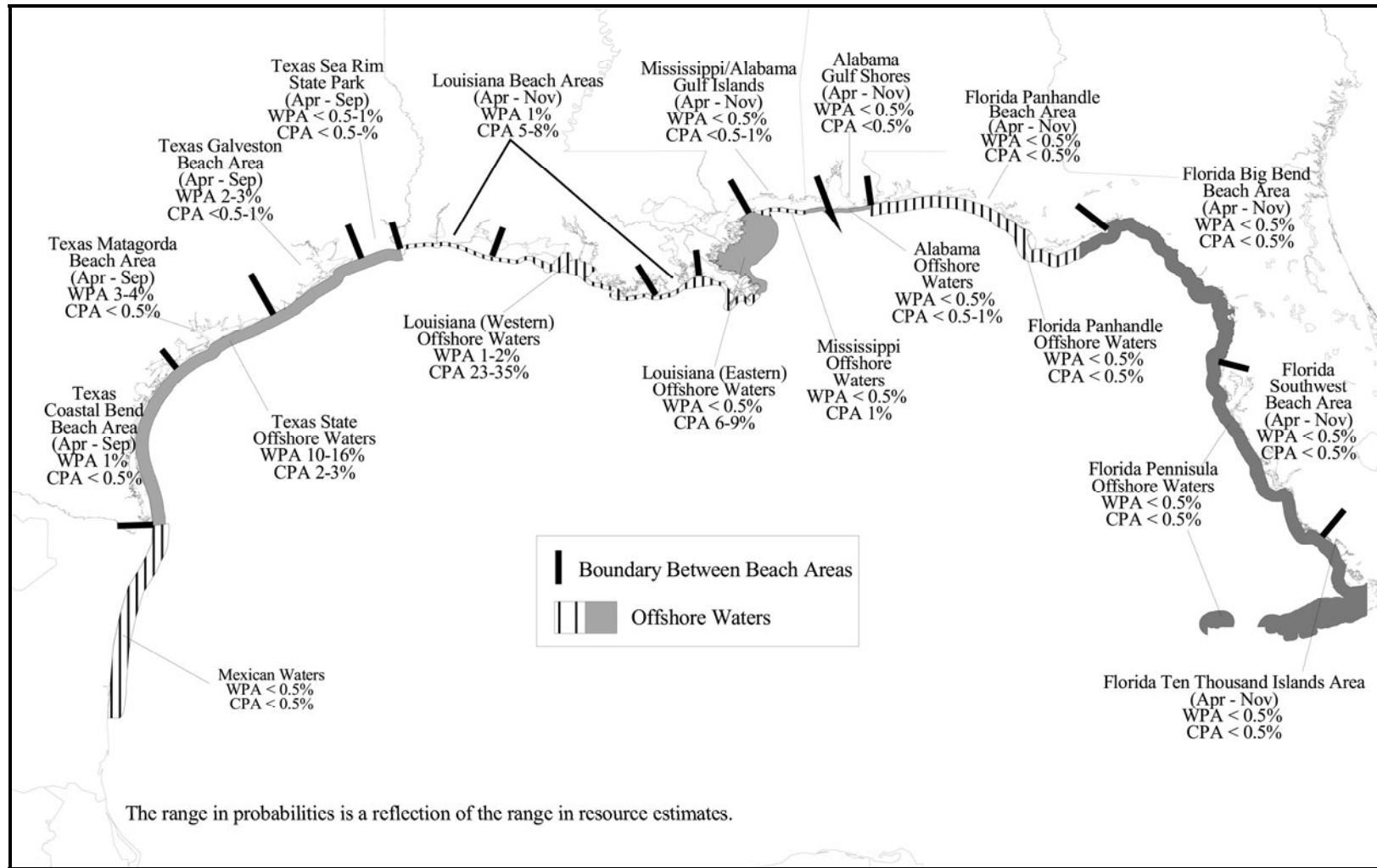


Figure 4-15. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days State Offshore Waters or Recreational Beaches as a Result of a WPA or CPA Proposed Action.

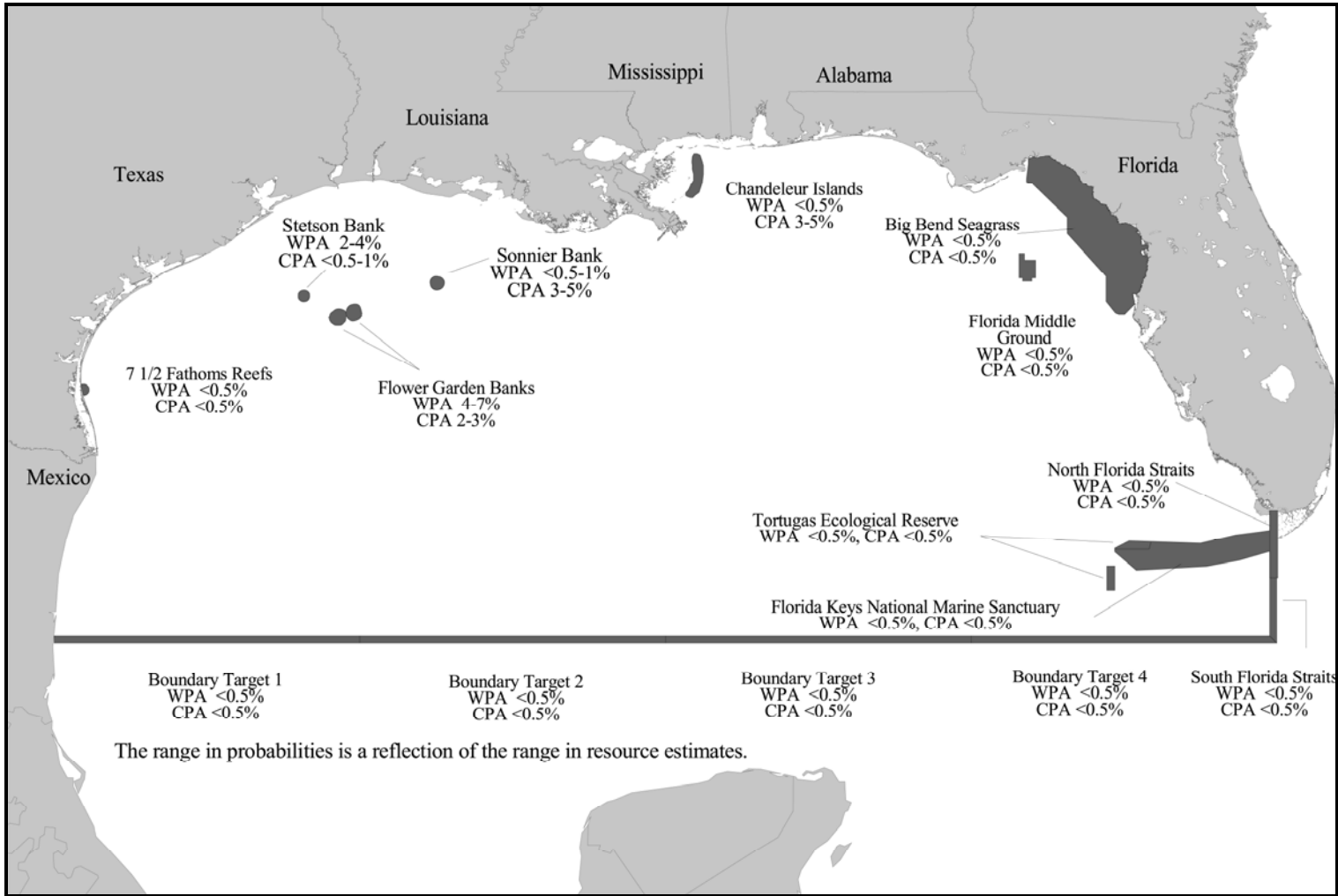


Figure 4-16. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days the Surface Waters Overlying and Surrounding Offshore Environmental Features or Boundary Targets as a Result of a WPA or CPA Proposed Action.

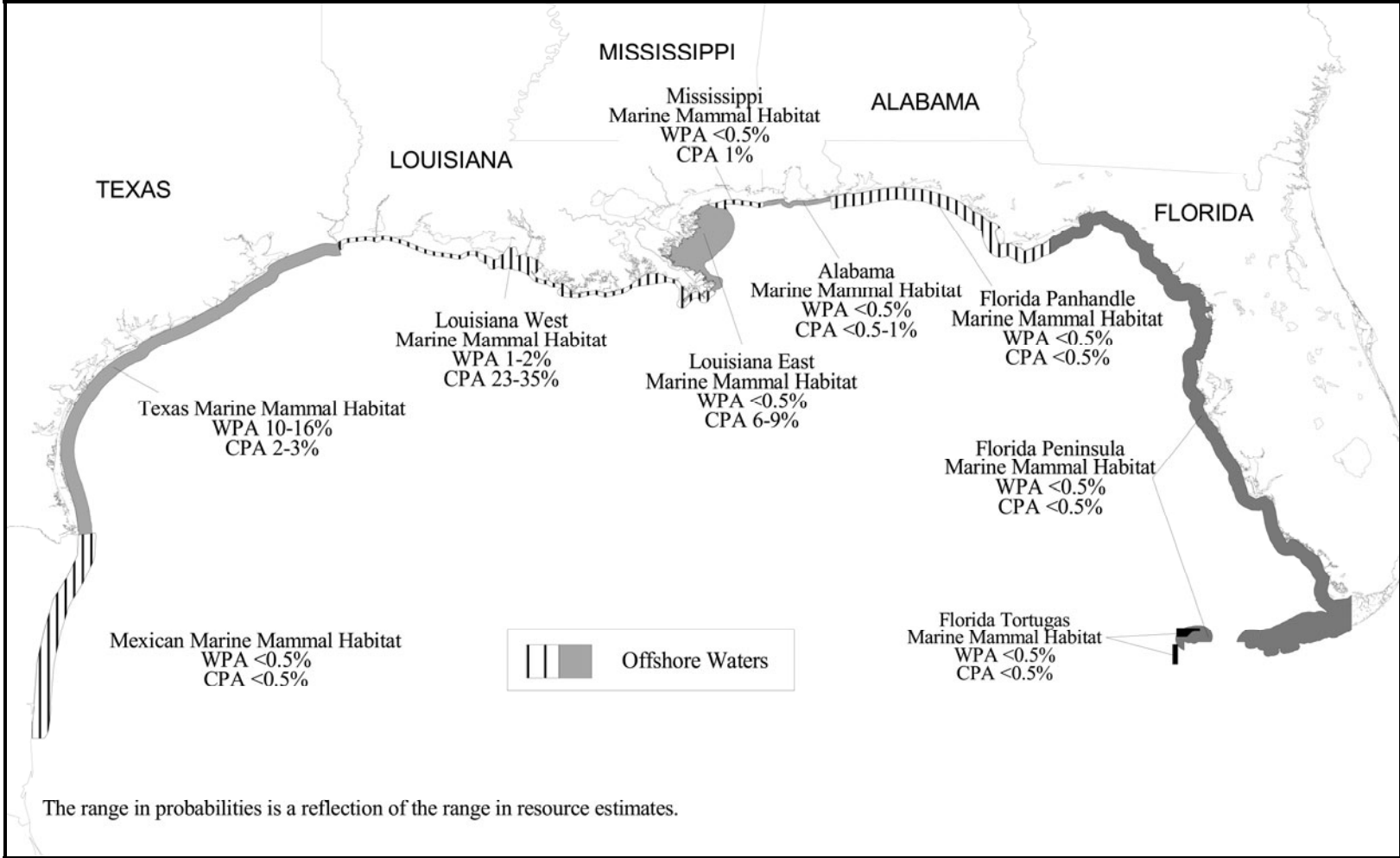


Figure 4-17. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Marine Mammal Habitats as a Result of a WPA or CPA Proposed Action.

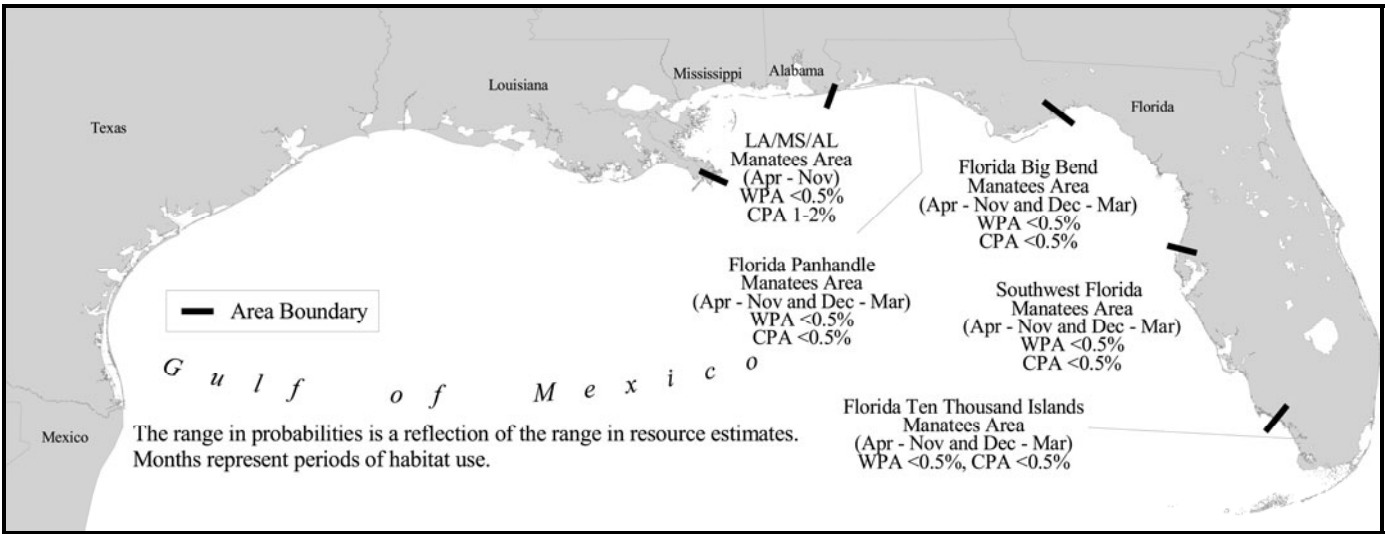


Figure 4-18. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Manatee Habitats as a Result of a WPA or CPA Proposed Action.

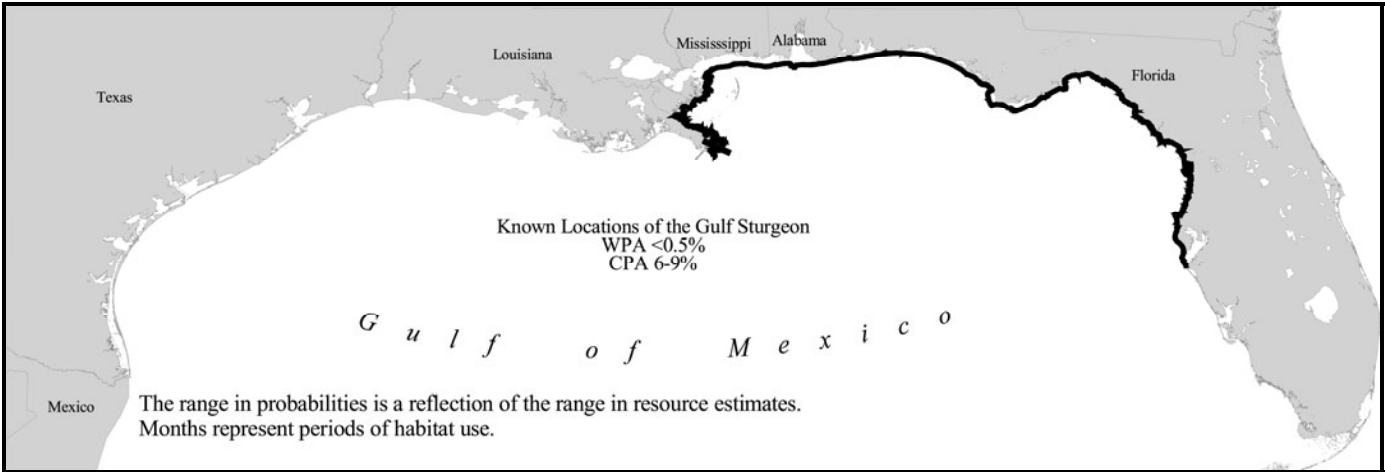


Figure 4-19. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Known Locations of Gulf Sturgeon as a Result of a WPA or CPA Proposed Action.

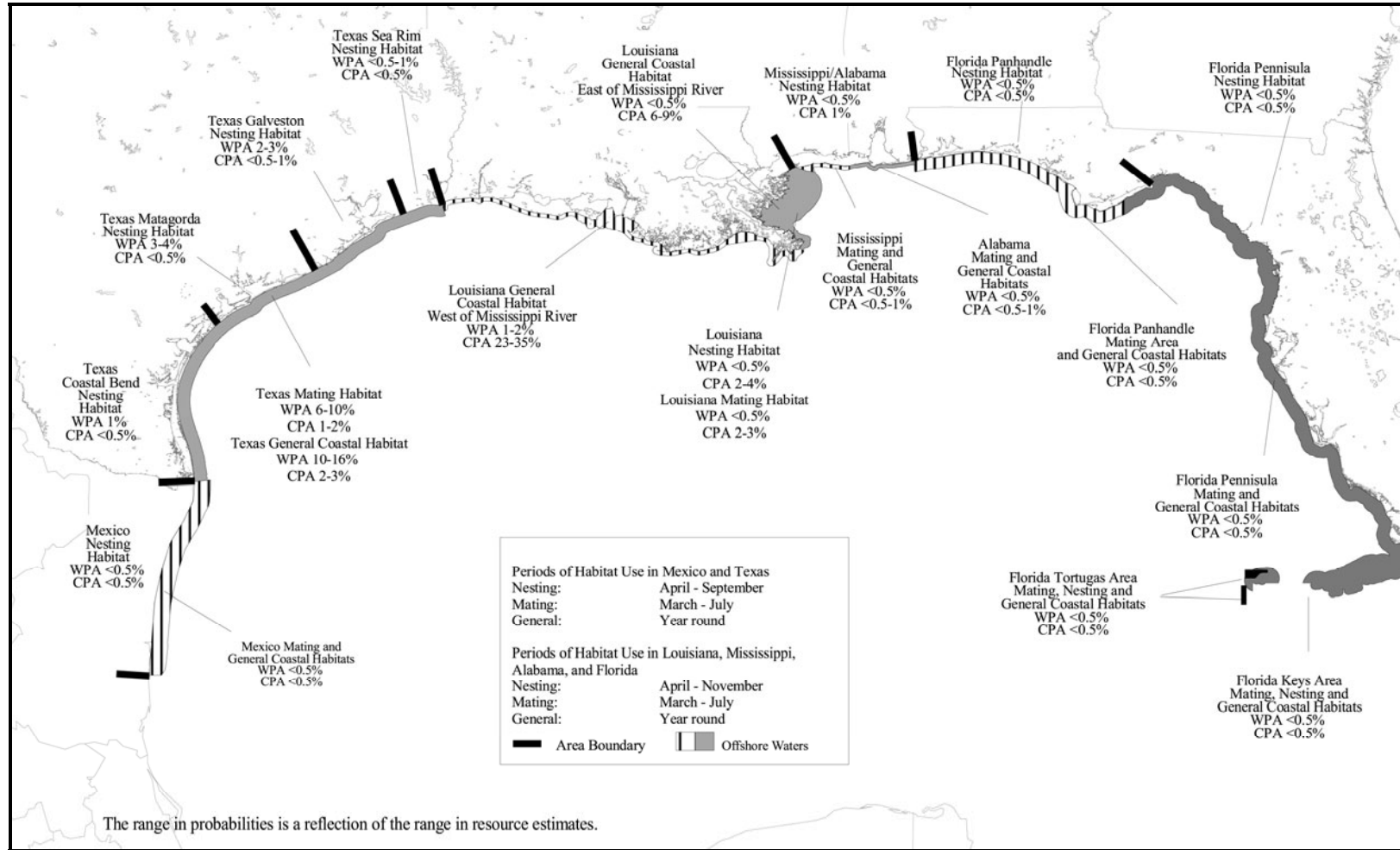


Figure 4-20. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Sea Turtle Habitats as a Result of a WPA or CPA Proposed Action.

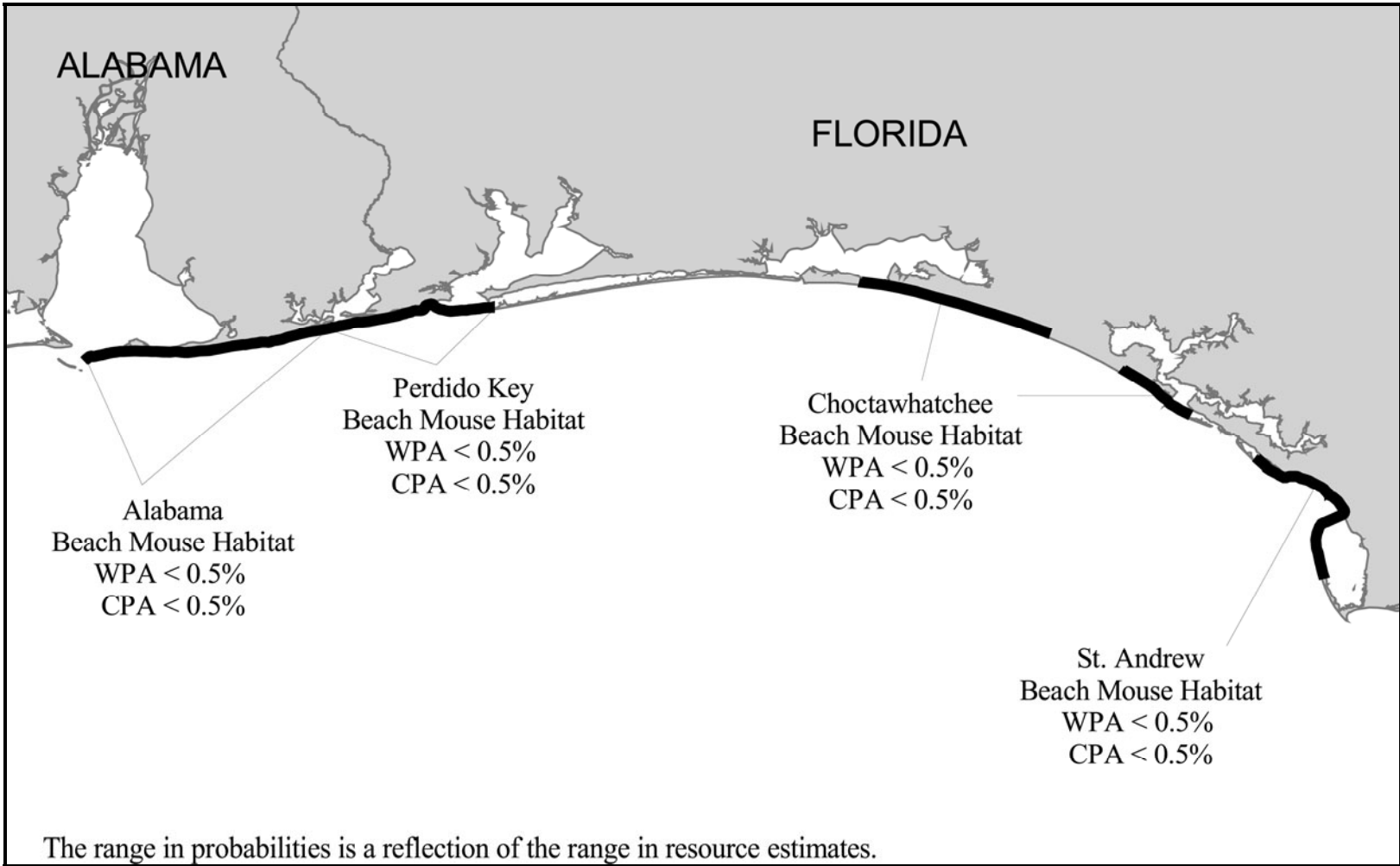


Figure 4-21. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Endangered Beach Mice Habitats as a Result of a WPA or CPA Proposed Action.



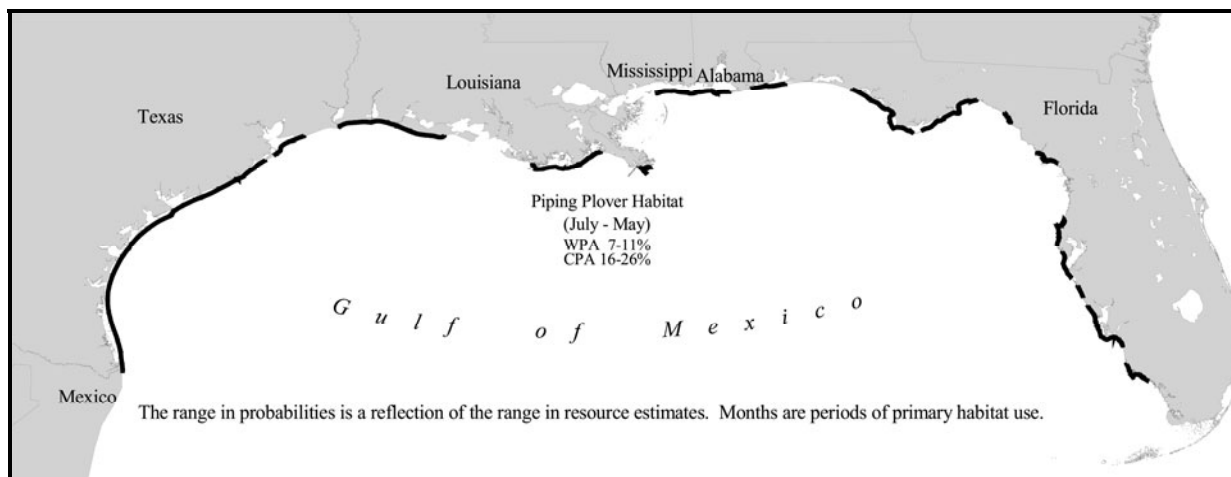


Figure 4-22. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Piping Plover Habitat as a Result of a WPA or CPA Proposed Action.

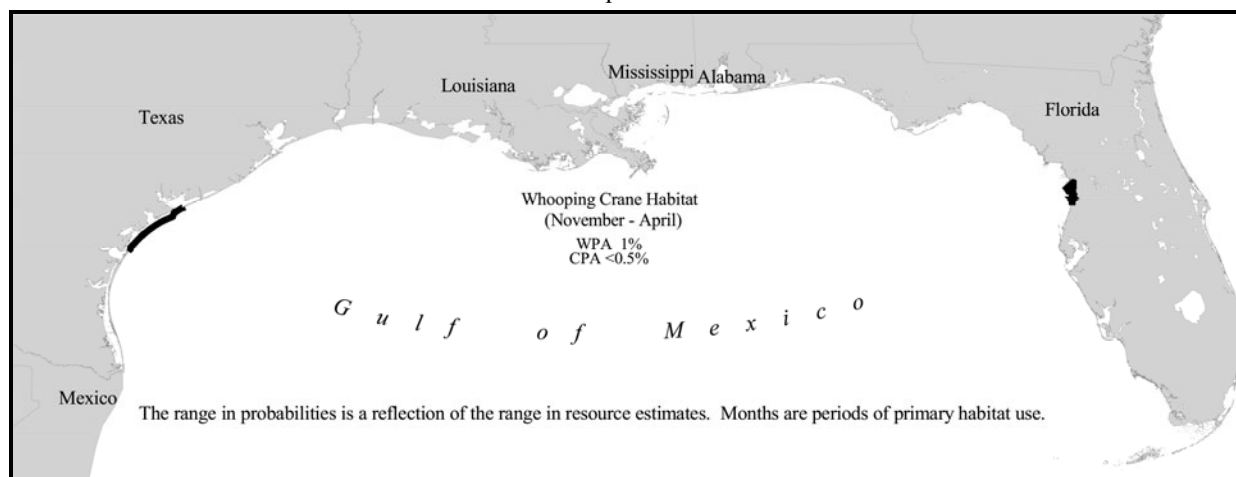


Figure 4-23. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Whooping Crane Habitat as a Result of a WPA or CPA Proposed Action.

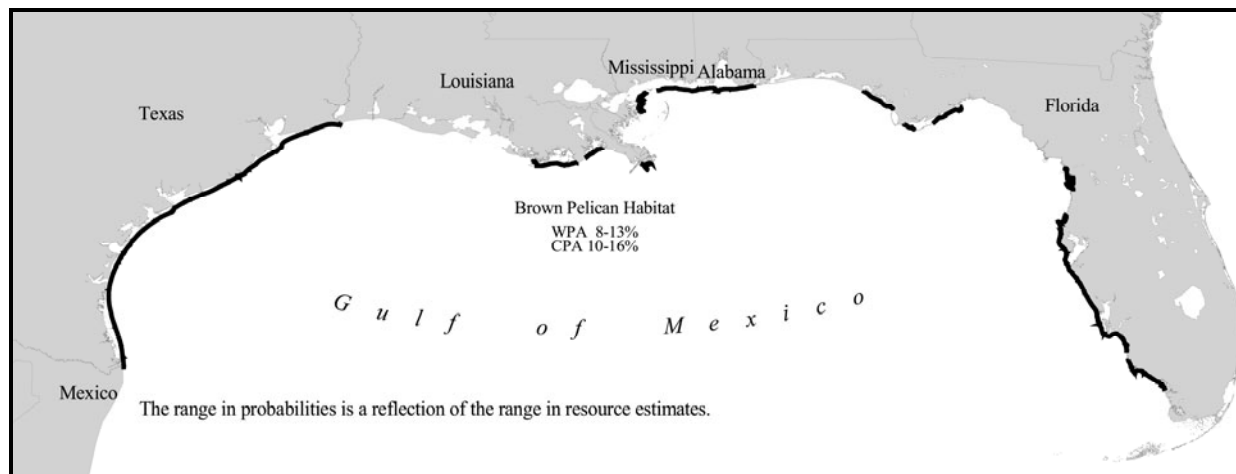


Figure 4-24. Probabilities of Oil Spills ( $> 1,000$  bbl) Occurring and Contacting within 10 Days Brown Pelican Habitat as a Result of a WPA or CPA Proposed Action.



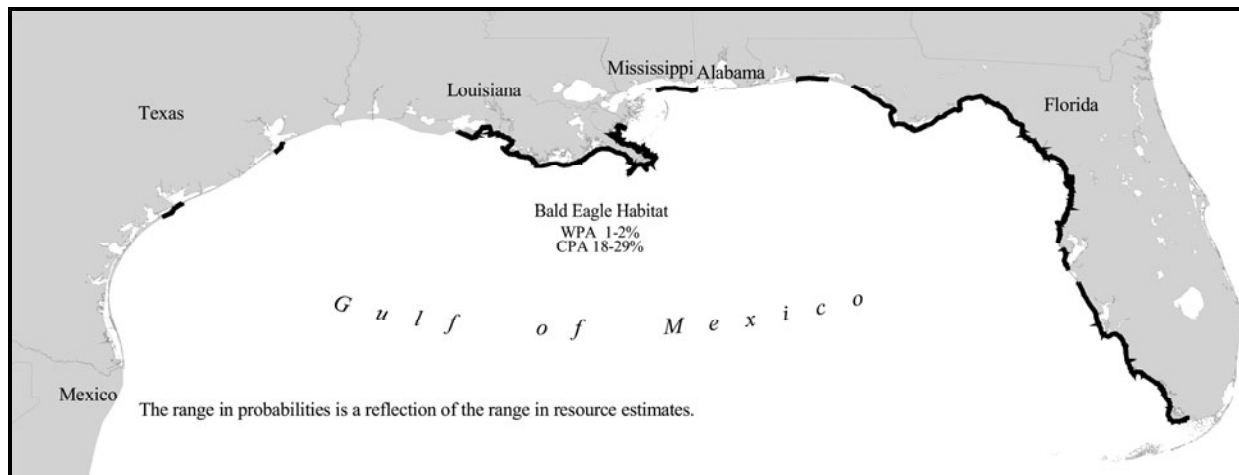


Figure 4-25. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Bald Eagle Habitat as a Result of a WPA or CPA Proposed Action.

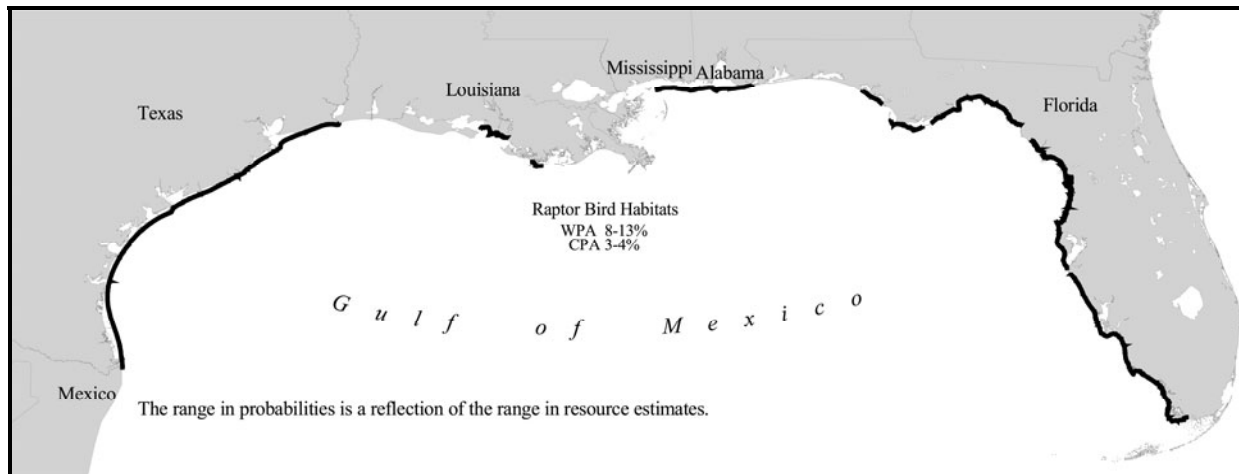


Figure 4-26. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Raptor Bird Habitats as a Result of a WPA or CPA Proposed Action.

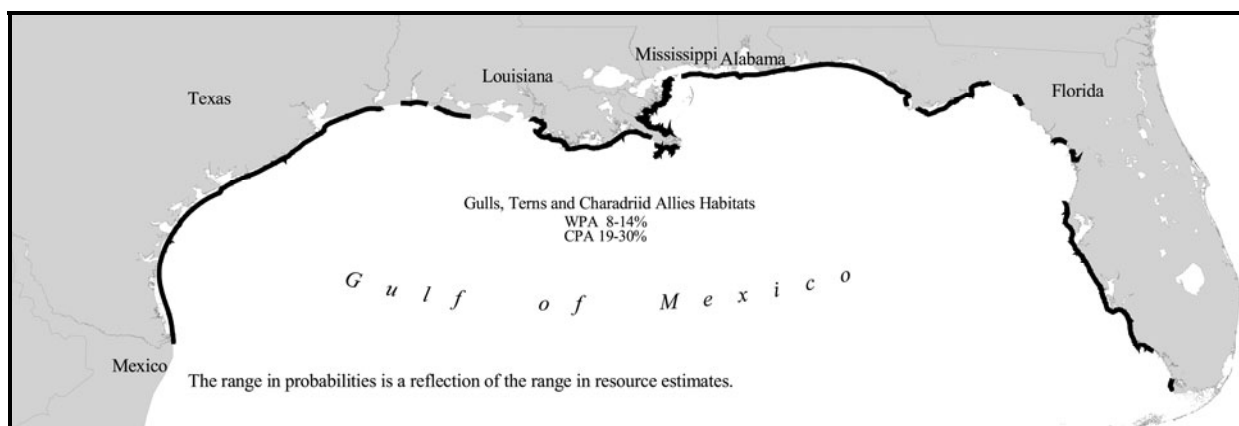


Figure 4-27. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Gull, Terns and Charadriid Allies Habitats as a Result of a WPA or CPA Proposed Action.

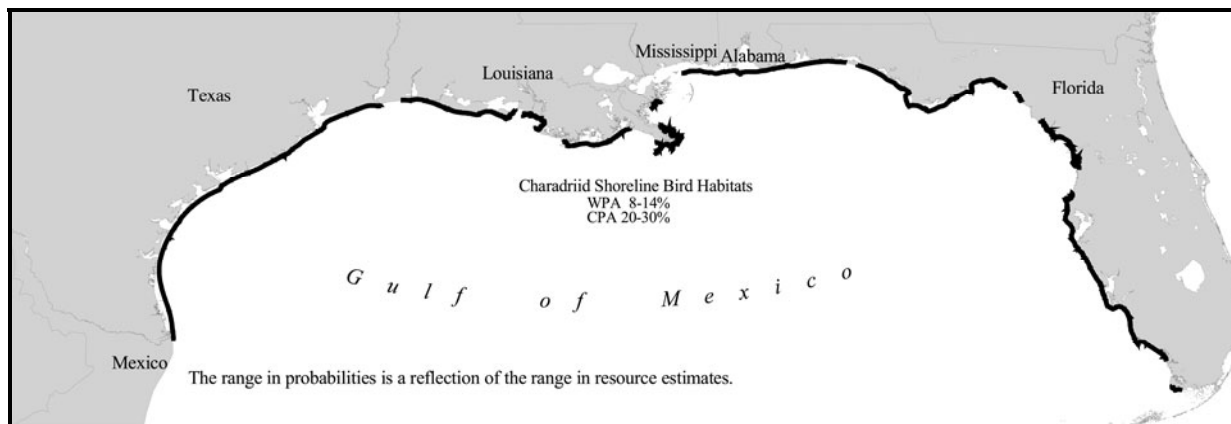


Figure 4-28. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Charadriid Shoreline Bird Habitats as a Result of a WPA or CPA Proposed Action.

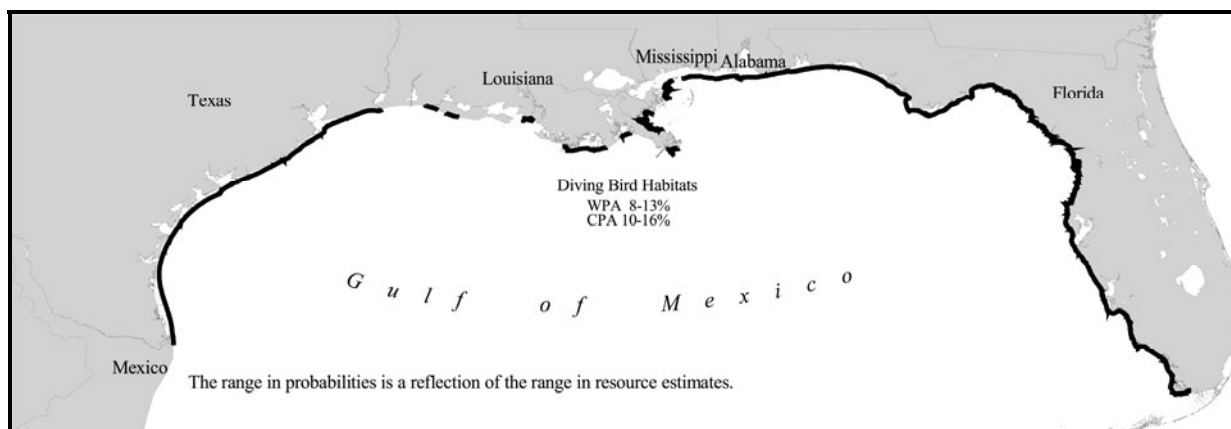


Figure 4-29. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Diving Bird Habitats as a Result of a WPA or CPA Proposed Action.

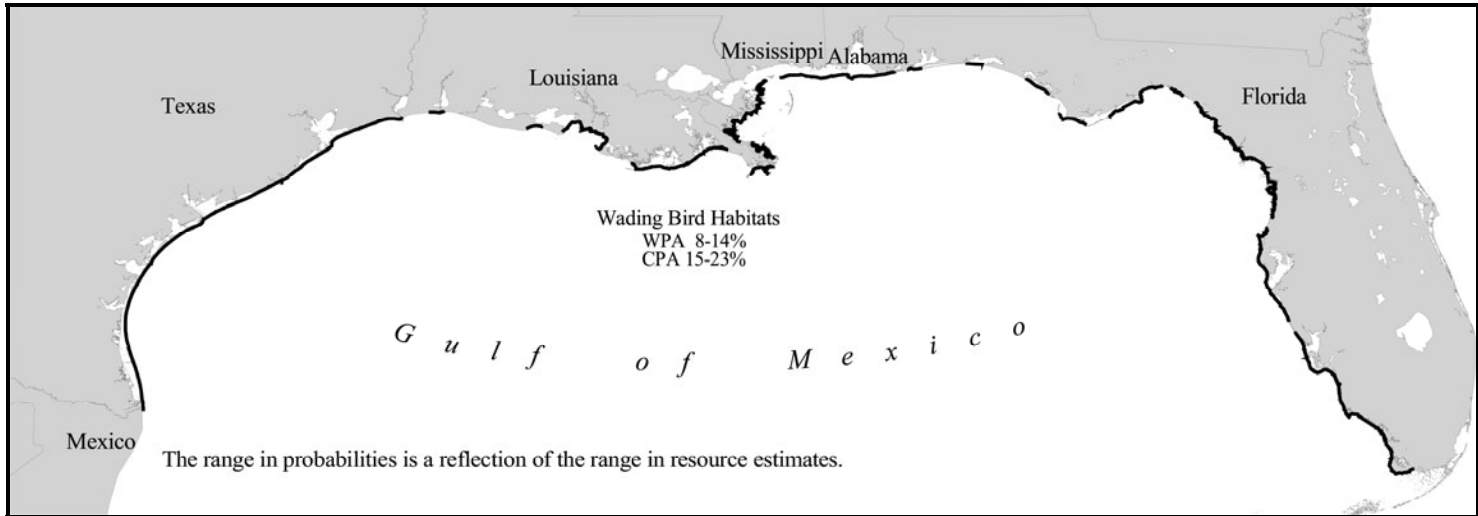


Figure 4-30. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Wading Bird Habitats as a Result of a WPA or CPA Proposed Action.

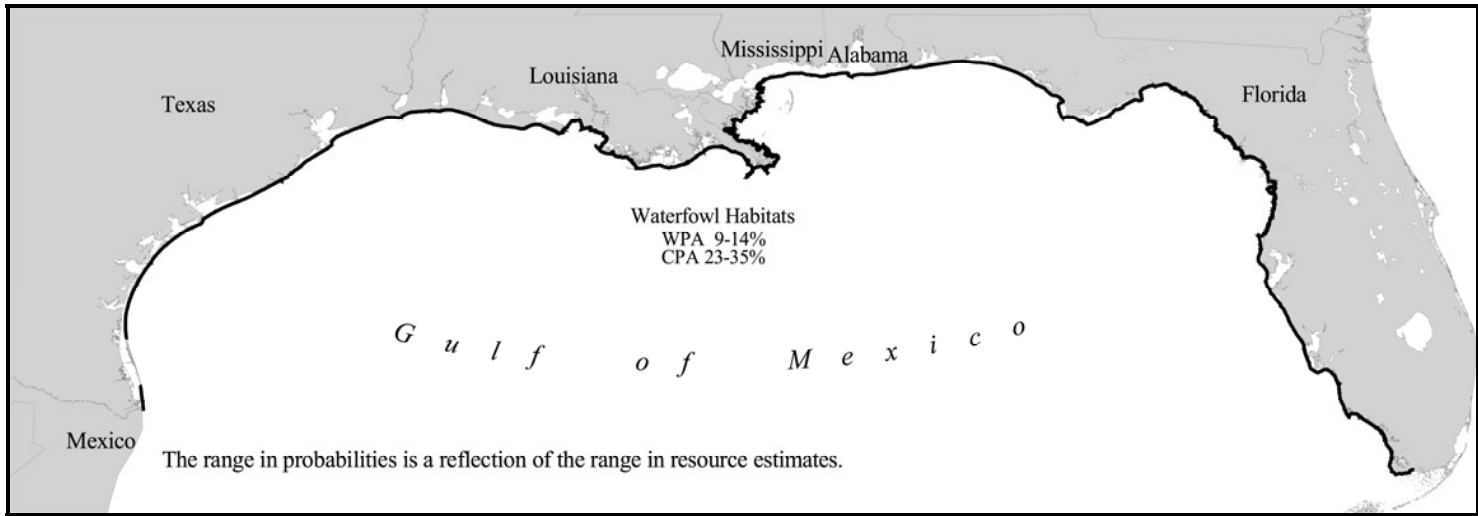


Figure 4-31. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Waterfowl Habitats as a Result of a WPA or CPA Proposed Action.

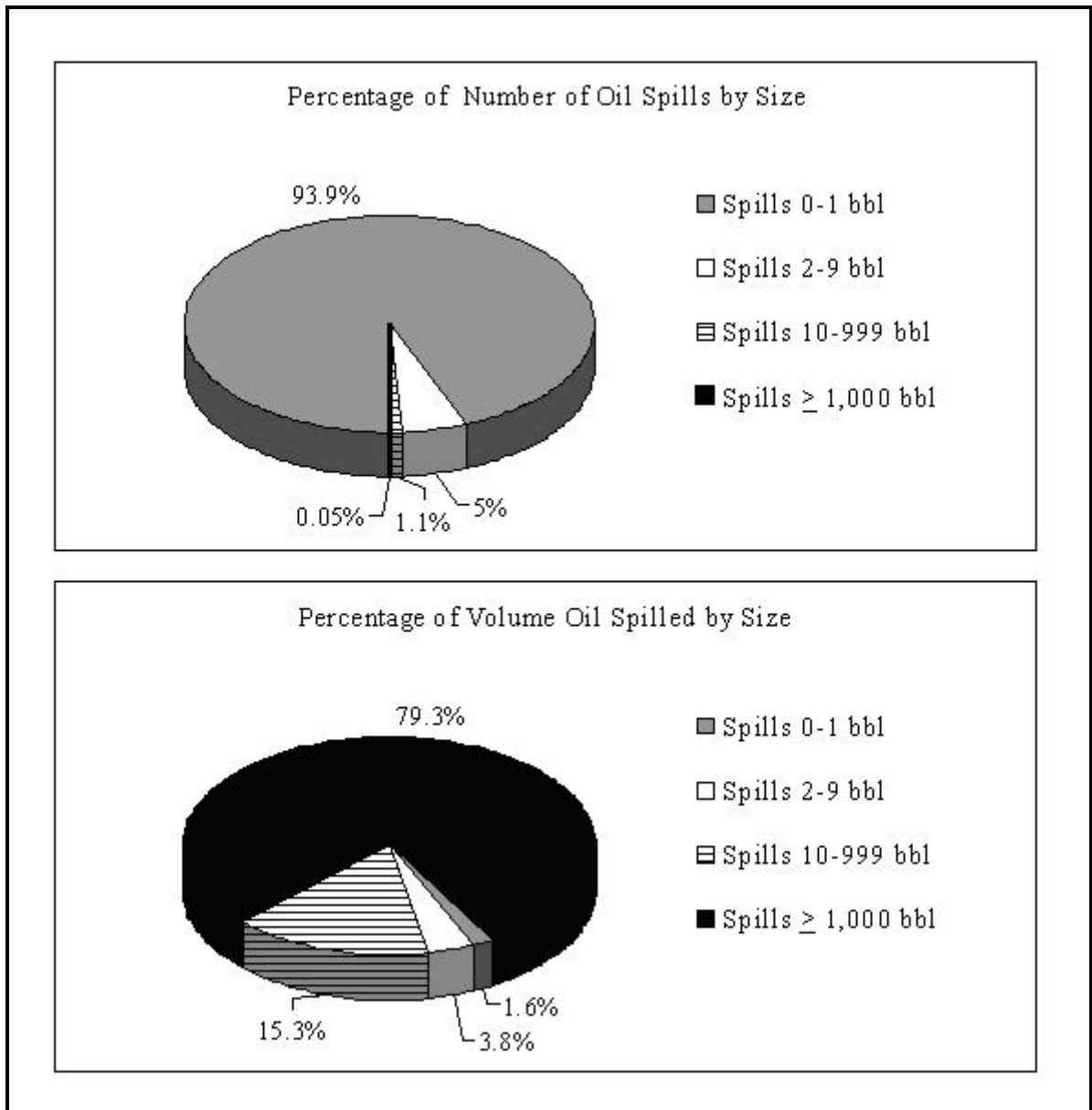


Figure 4-32. Comparison of Spill Frequency and Spill Volume for Past OCS Spills by Size Category (1971-1999 MMS OCS spill database (Anderson and LaBelle, 2000)).

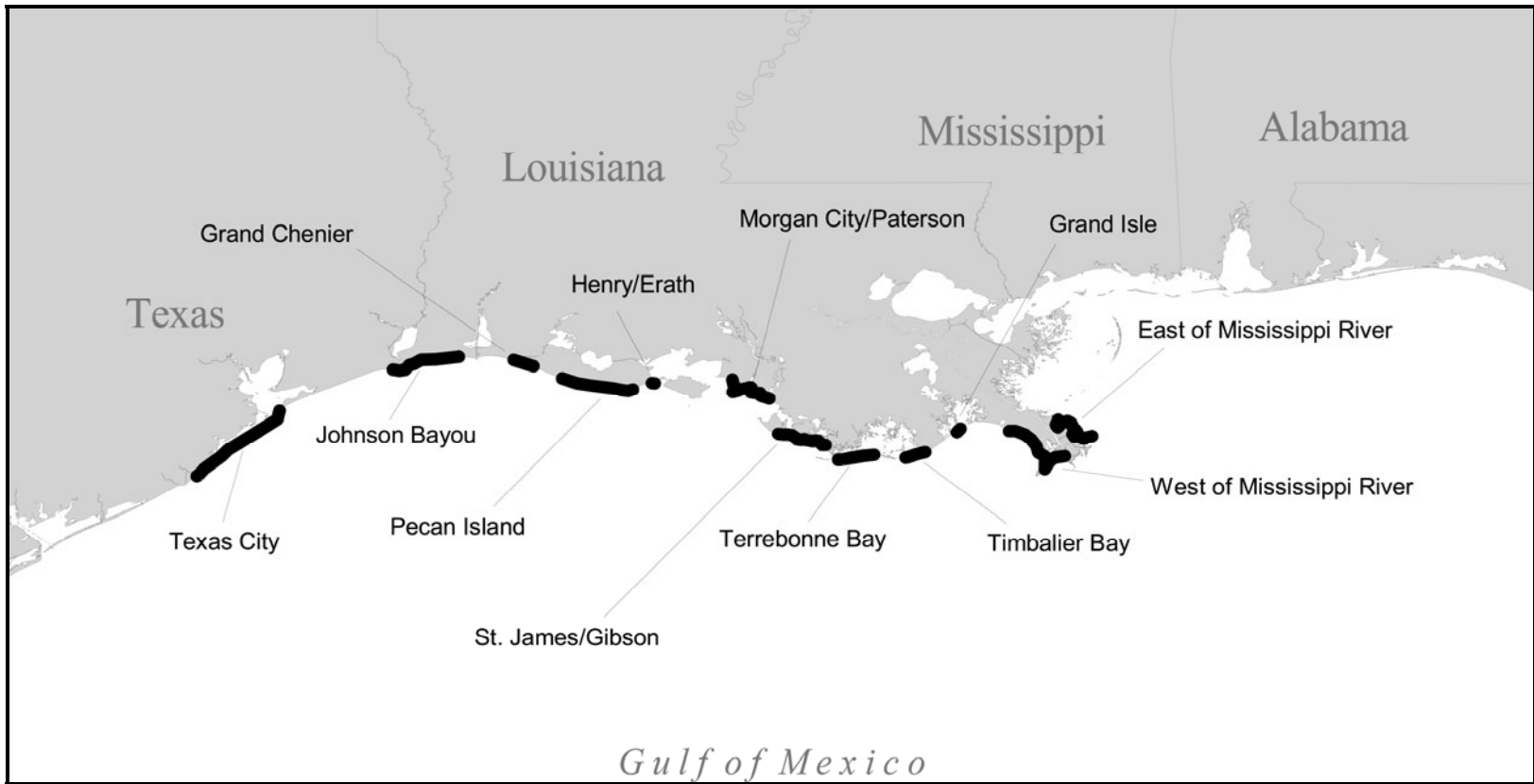


Figure 4-33. Major Oil Pipeline Landfall Areas Developed for OSRA.

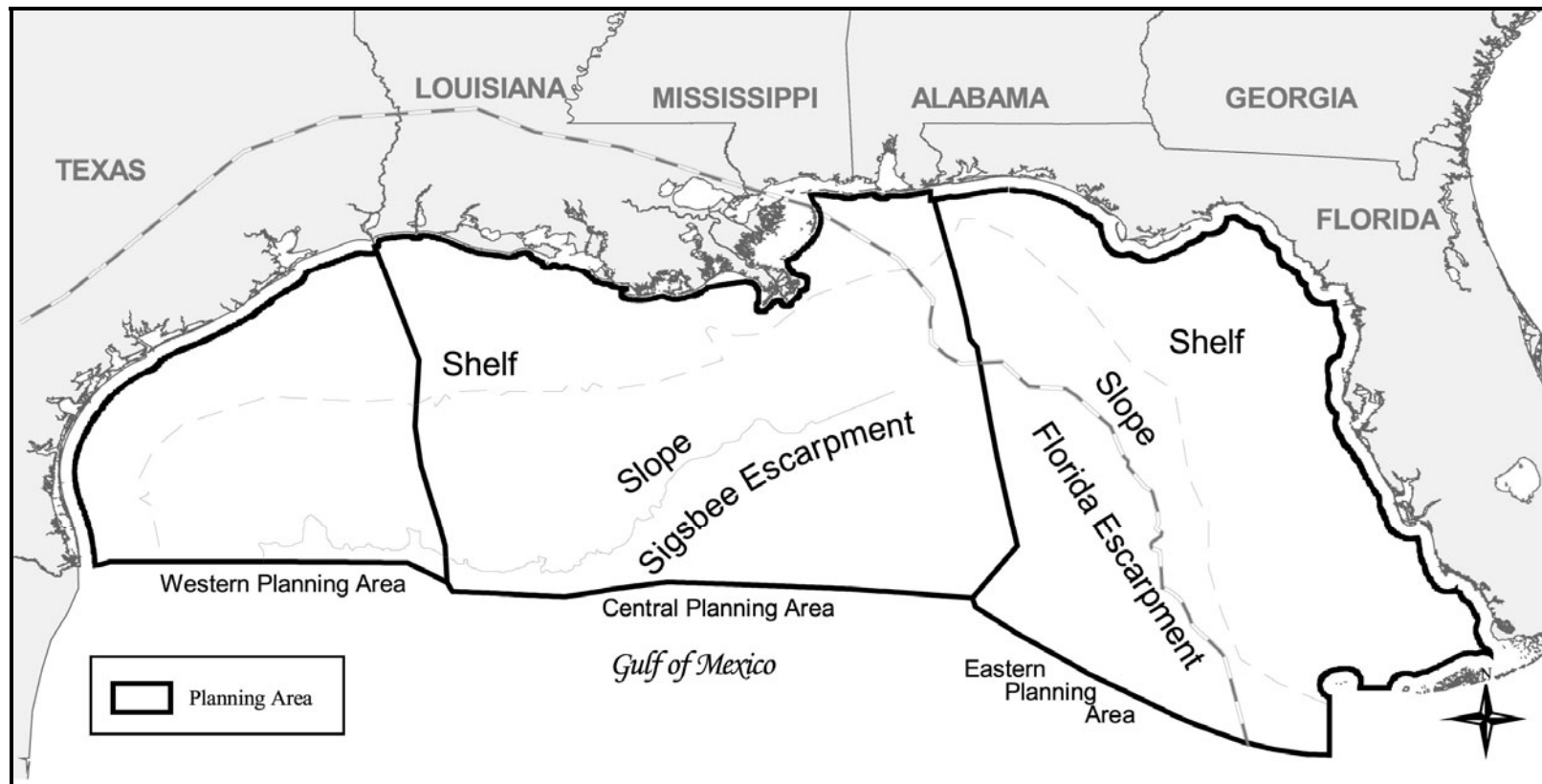


Figure A-1. Geologic Provinces of the Gulf of the Mexico.

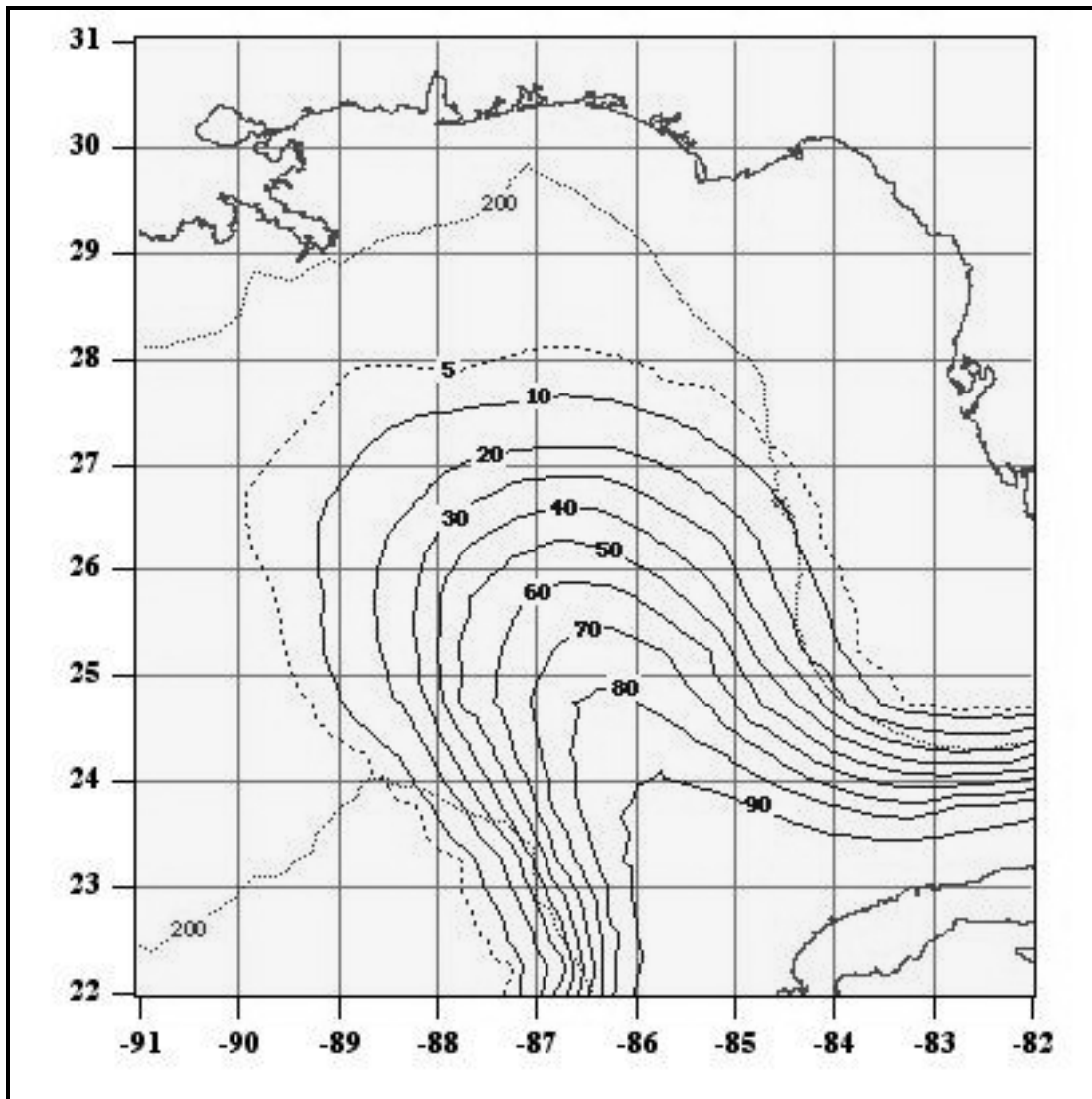


Figure A-2. Spatial Frequency (%) of the Water Mass Associated with the Loop Current in the Eastern Gulf of Mexico Based on Data for the Period 1976-2003.

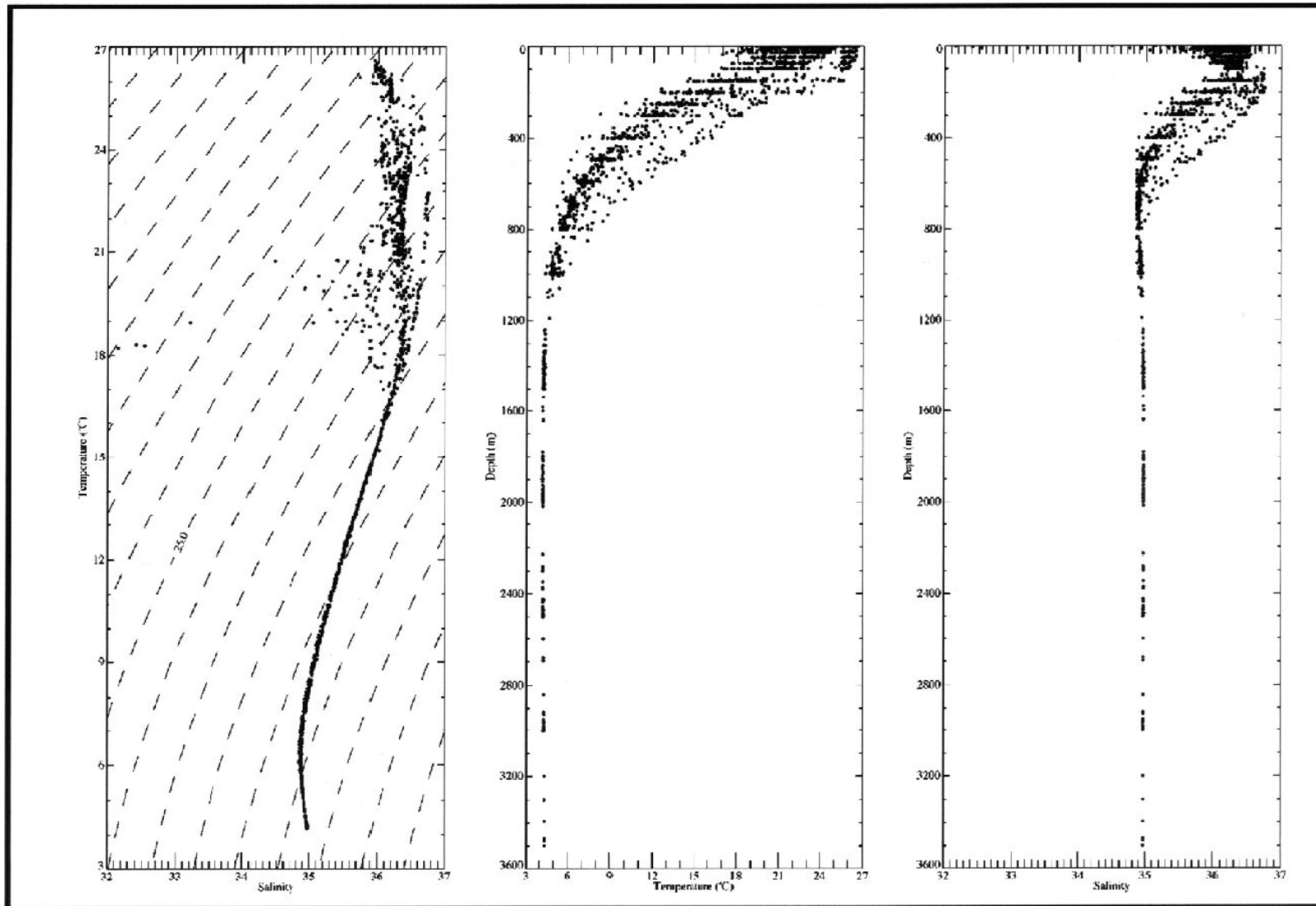


Figure A-3. Temperature vs. Salinity, Temperature vs. Depth, and Salinity vs. Depth Based on All Data Collected during Hidalgo Cruise 62-H3, February to March 1962.



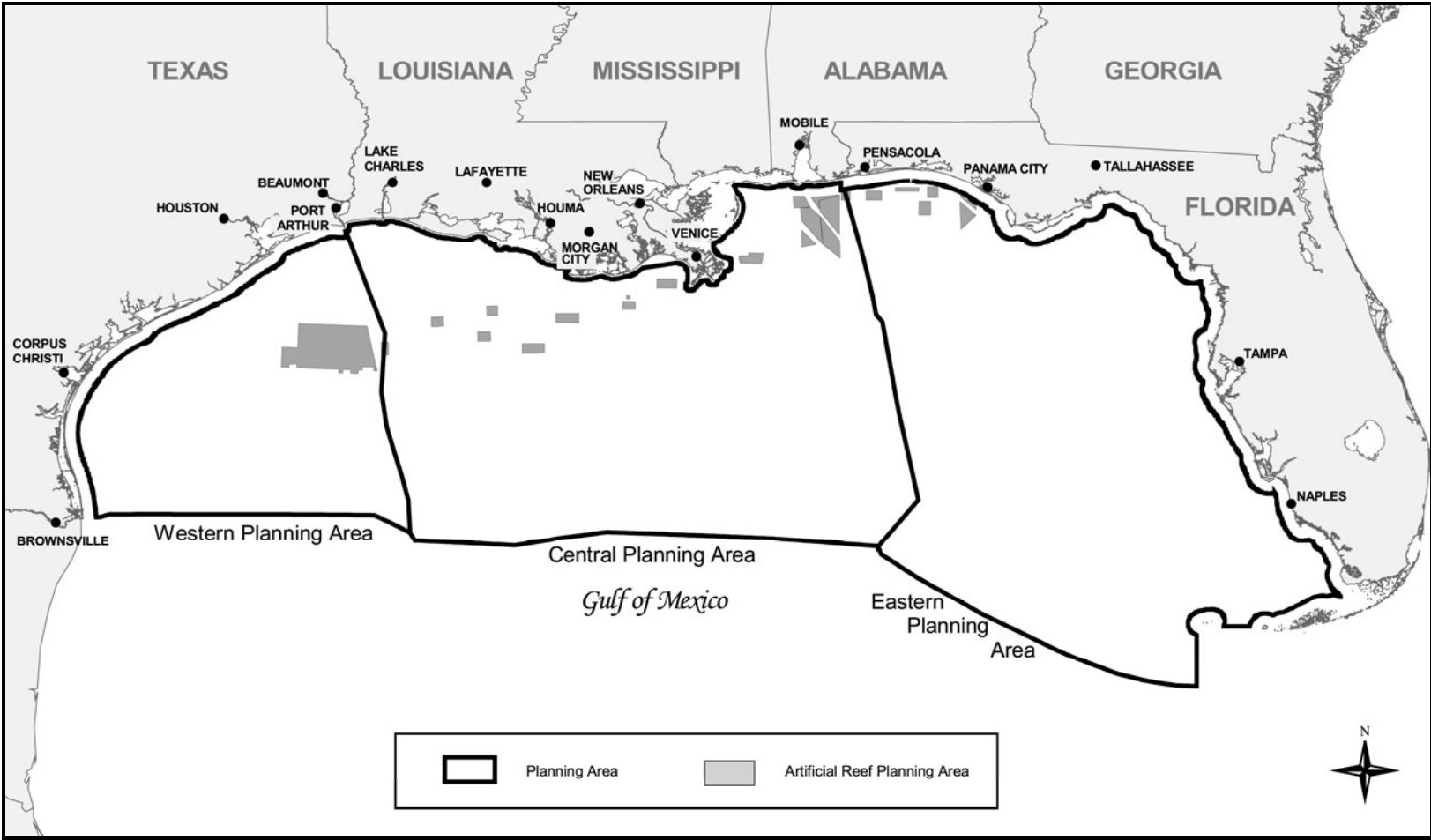


Figure A-4. Location of Artificial Reef Planning Areas in the Gulf of Mexico.

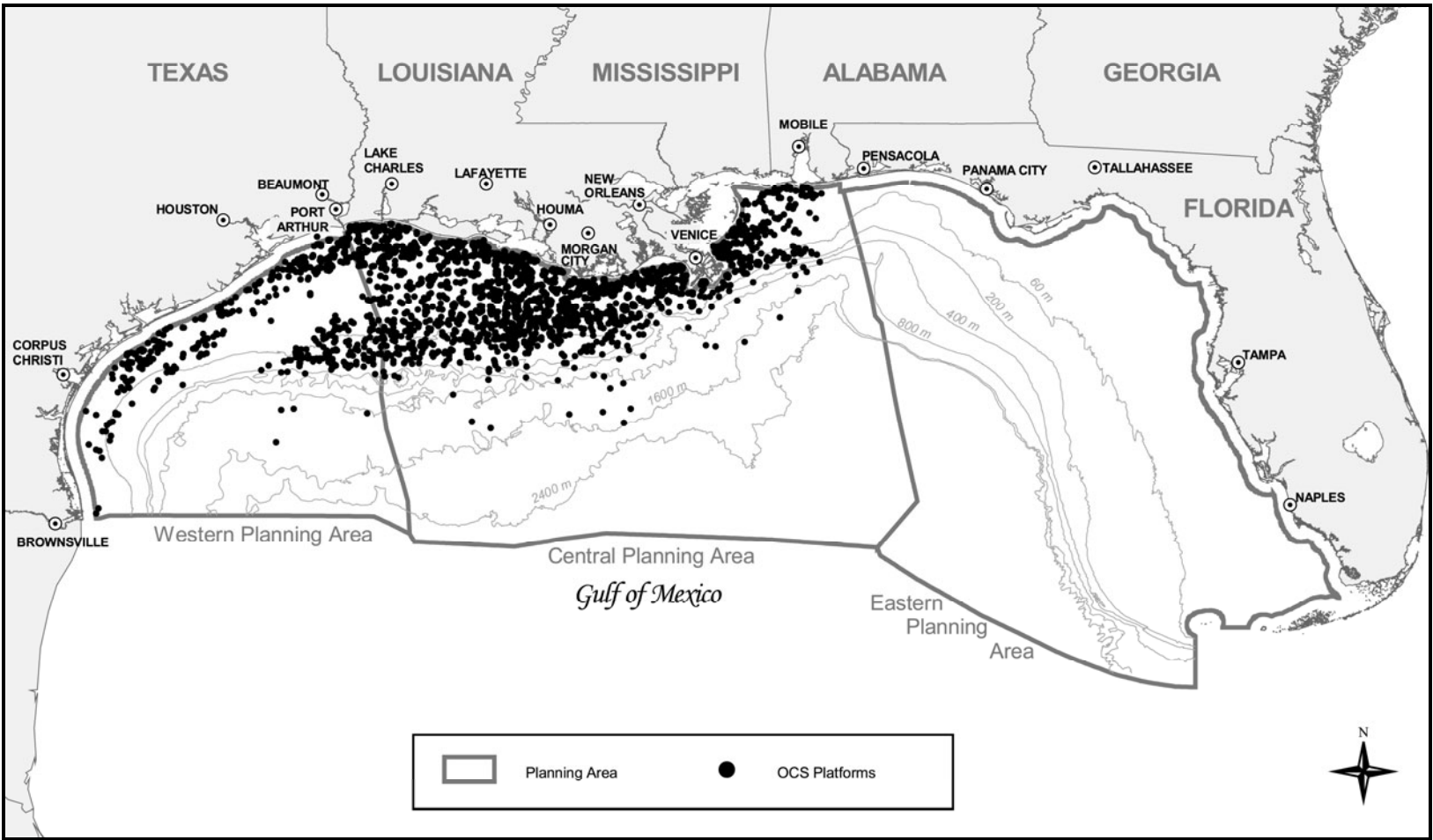


Figure A-5. OCS Platform Distribution across the Gulf of Mexico.

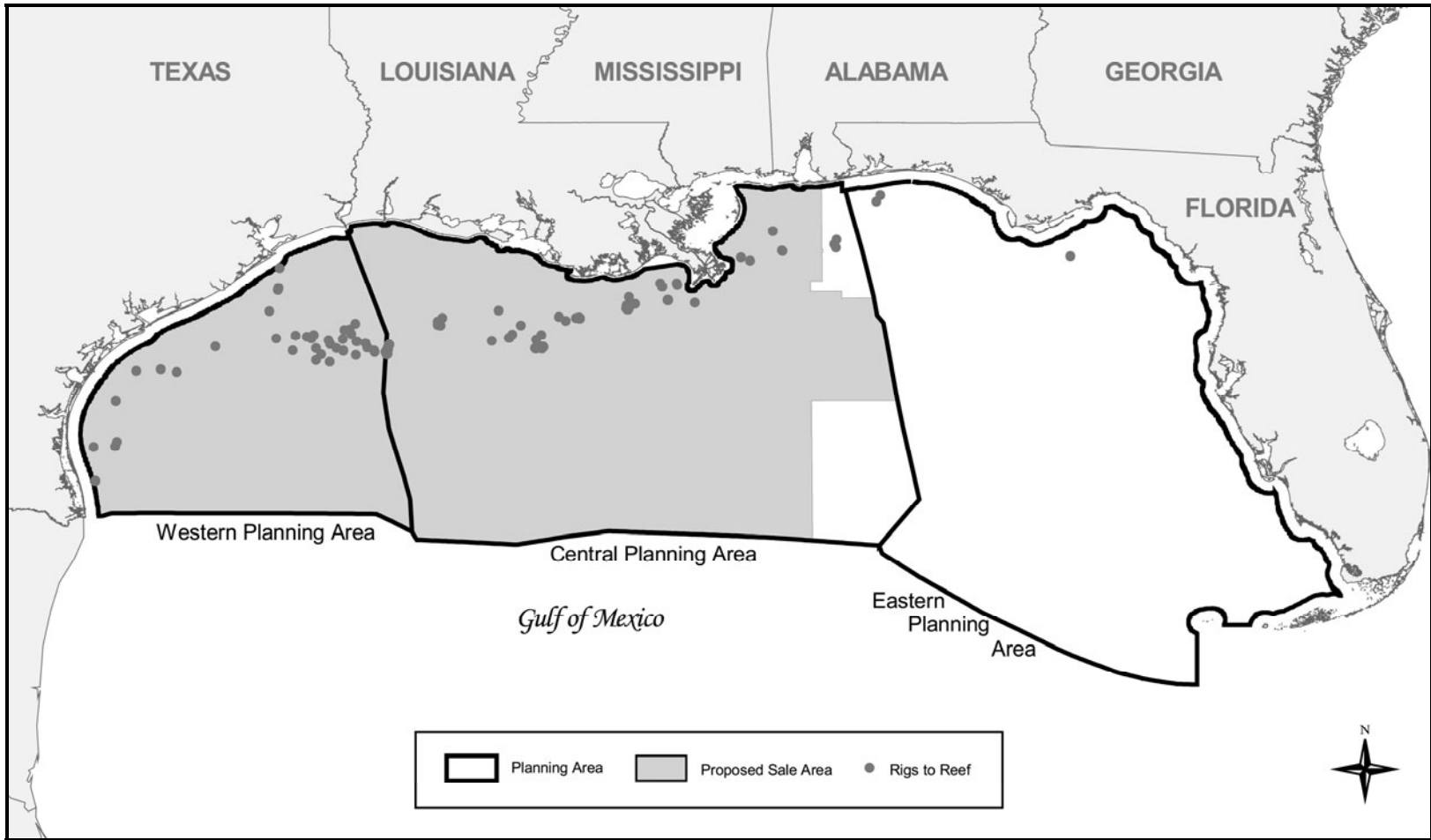


Figure A-6. Locations of Rigs-to-Reefs in the Gulf of Mexico.

# TABLES

Table 1-1  
Proposed WPA and CPA Gulf of Mexico OCS  
Lease Sales for 2007-2012

Sale	Area	Year
204	WPA	2007
205	CPA	2007
206	CPA	2008
207	WPA	2008
208	CPA	2009
210	WPA	2009
213	CPA	2010
215	WPA	2010
216	CPA	2011
218	WPA	2011
222	CPA	2012

Table 3-1

## National Ambient Air Quality Standards (NAAQS)

Pollutant	Averaging Period	Primary Standards <sup>a</sup>	Secondary Standards <sup>b</sup>
Ozone	8-hour <sup>d</sup>	0.08 ppm (157 µg/m <sup>3</sup> )	(same as primary)
Sulphur Dioxide	Annual	0.03 ppm (80 µg/m <sup>3</sup> )	NA
	24-hour	0.14 ppm (365 µg/m <sup>3</sup> )	NA
	3-hour <sup>c</sup>	NA	1,300 µg/m <sup>3</sup>
Carbon Monoxide	8-hour <sup>c</sup>	9.0 ppm (10 mg/m <sup>3</sup> )	NA
	1-hour <sup>c</sup>	35 ppm (40 mg/m <sup>3</sup> )	NA
Nitrogen Dioxide	Annual	0.053 ppm (100 µg/m <sup>3</sup> )	(same as primary)
Suspended Particulate Matter (PM <sub>10</sub> )	Annual	50 µg/m <sup>3</sup>	(same as primary)
	24-hour	150 µg/m <sup>3 e</sup>	(same as primary)
	(PM <sub>2.5</sub> )	Annual	15 µg/m <sup>3 f</sup>
	24-hour	65 µg/m <sup>3 g</sup>	(same as primary)
Lead	Calendar Quarter	1.5 µg/m <sup>3</sup>	(same as primary)

<sup>a</sup> The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

<sup>b</sup> The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>c</sup> Not to be exceeded more than once a year.

<sup>d</sup> Three-year average of the annual fourth-highest daily maximum 8-hour average for each monitor.

<sup>e</sup> Based on the 99<sup>th</sup> percentile of 24-hour PM<sub>10</sub> concentration at each monitor.

<sup>f</sup> Based on 3-year average of annual arithmetic mean concentrations.

<sup>g</sup> Based on 3-year average of 98<sup>th</sup> percentile of 24-hour concentrations.

Note: mg/m<sup>3</sup> = milligrams per cubic meter = 1,000 µg/m<sup>3</sup>.  
µg/m<sup>3</sup> = micrograms per cubic meter.

Source: 40 CFR 50, 2005.

Table 3-2

## Selected Mean Tides Around the Western and Central Gulf of Mexico

	Daily Mean (cm)	Reference
South Padre Island, Tex.	33.8	Conrad Blucher Institute, 2001
Matagorda Island, Tex.	21.3	White et al., 1989
Sabine Pass, Mosquito Point	26.6	Conrad Blucher Institute, 2001
Grand Isle, La.	30.0	USDOC, NOAA, 1988
Chenier Plain, La.	36.0	Penland and Suter, 1989
Mobile Point, Ala.	36.6	Hummell, 1990

Table 3-3

## Biotic Zones of Topographic Features with Bank Crest and Seafloor Depth in Meters

Feature	Area	Zone	Crest (m)	Seafloor (m)
<b>Shelf Edge Banks</b>				
East Flower Gardens	Western	MS-DMP-M-S-AS-T-A-N	16	100-120
West Flower Gardens	Western	MS-DMP-M-S-AS-T-A-N	20	110-130
Alderice	Central	AS-T-A-N	55	84-90
Appelbaum	Western	AS-T-A-N	76	100-120
Bouma	Central	AS-T-A-N	60	90-100
Bright	Central	S-AS-T-A-N	37	110
Diaphus	Central	T-A-N	73	110-130
Elvers	Central	AS-T-A-N	60	180
Ewing	Central	AS-T-A-N	56	85-100
Geyer	Central	AS-T-A-N	37	190-210
Jakkula	Central	AS-T-A-N	59	120-140
MacNeil	Western	AS-T-A-N	62	86-94
McGrail	Central	S-AS-T-A-N	45	110-130
Parker	Central	AS-T-A-N	60	100
Rankin	Western	AS-T-A-N	52	110-140
Rezak	Central	AS-T-A-N	60	120
Sackett	Central	AS-T-A-N	67	100
Sidner	Central	AS-T-A-N	55	150
Sweet	Central	AS-T-A-N	75	130-200
<b>Low-Relief Midshelf Banks</b>				
32 Fathom	Western	T-A-N	52	55
Claypile	Western	A-N	40	50
Coffee Lump	Western	T-A-N	62	70
<b>Midshelf Banks</b>				
29 Fathom	Western	T-A-N	52	72
Fishnet	Central	T-A-N	66	78
Sonnier	Central	MS-M-S-AS-T-A-N	17	50
Stetson	Western	MS-M-S-AS-T-A-N	17	52
<b>Low-Relief South Texas Banks</b>				
Big Dunn Bar	Western	T-A-N	61	67
Blackfish Ridge	Western	T-A-N	60	70-74
Mysterious	Western	T-A-N	70	74-86
Small Dunn Bar	Western	T-A-N	63	67
<b>South Texas Banks</b>				
Aransas	Western	T-A-N	57	70-72
Baker	Western	T-A-N	56	70-74
Dream	Western	T-A-N	62	80
Hospital	Western	T-A-N	59	70-78
North Hospital	Western	T-A-N	58	68-70
South Baker	Western	T-A-N	59	80-84
Southern	Western	T-A-N	58	80

A = Antipatharian Zone

AS = Algal/Sponge Zone

DMP = *Diploria/Montastraea/Porites* ZoneM = *Madracis* ZoneMS = *Millepora/Sponge* Zone

N = Nepheloid Zone

S = *Stephanocoenia*

T = Transitional

Sources: Rezak and Bright, 1981; Rezak et al., 1983.

Table 3-4

Estimated Abundance of Cetaceans  
in the Northern Gulf of Mexico Oceanic Waters

Species	Common Name	Estimated Number of Individuals
<i>Balaenoptera edeni</i>	Bryde's whale	40
<i>Physeter macrocephalus</i>	Sperm whale	1,349
<i>Kogia spp.</i>	Dwarf or pygmy sperm whale	742
<i>Ziphius cavirostris</i>	Cuvier's beaked whale	95
Unidentified ziphiid	Unidentified beaked whales	146
<i>Feresa attenuata</i>	Pygmy killer whale	408
<i>Pseudorca crassidens</i>	False killer whale	1,038
<i>Orcinus orca</i>	Killer whale	133
<i>Globicephala sp.</i>	Pilot whale	2,388
<i>Peponocephala electra</i>	Melonheaded whale	3,451
<i>Grampus griseus</i>	Risso's dolphin	2,169
<i>Tursiops truncatus</i>	Bottlenose dolphin	27,559
<i>Steno bredanensis</i>	Rough-toothed dolphin	2,223
<i>Lagenodelphis hosei</i>	Fraser's dolphin	726
<i>Stenella frontalis</i>	Atlantic spotted dolphin	30,947
<i>Stenella longirostris</i>	Spinner dolphin	11,971
<i>Stenella attenuate</i>	Pantropical spotted dolphin	91,321
<i>Stenella clymene</i>	Clymene dolphin	17,355
<i>Stenella coeruleoalba</i>	Striped dolphin	6,505

Source: Waring et al., 2004.



Table 3-5

## Sea Turtle Taxa of the Northern Gulf of Mexico

Order Testudines (turtles)	Relative Occurrence	ESA Status
Family Cheloniidae (hardshell sea turtles)		
Loggerhead sea turtle ( <i>Caretta caretta</i> )	C	T/E
Green sea turtle ( <i>Chelonia mydas</i> )	C	E
Hawksbill sea turtle ( <i>Eretmochelys imbricata</i> )	R	E
Kemp's Ridley sea turtle ( <i>Lepidochelys kempī</i> )	C	E
Family Dermochelyidae (leatherback sea turtle)		
Leatherback sea turtle ( <i>Dermochelys coriacia</i> )	U	E

Population status in the northern Gulf is summarized according to the following categories:

COMMON (C): A common species is one that is abundant wherever it occurs in the region (i.e., the northern Gulf). Most common species are widely distributed over the area.

UNCOMMON (U): An uncommon species may or may not be widely distributed but does not occur in large numbers. Uncommon species are not necessarily rare or endangered.

RARE (R): A rare species is one that is present in such small numbers throughout the region that it is seldom seen. Although not threatened with extinction, a rare species may become endangered if conditions in its environment change.

Endangered Species Act (ESA) status is summarized according to listing status under the following categories:

ENDANGERED (E): Species determined to be in imminent danger of extinction throughout all of a significant portion of their range.

THREATENED (T): Species determined likely to become endangered in the foreseeable future.

Table 3-6

## Common Diving Birds in the Northern Gulf of Mexico

Common Name	Scientific Name	Occurrence*	Feeding Behavior and Diet
Common loon	<i>Gavia immer</i>	Wintering resident	Dives from surface for fish, arthropods, snails, leeches, frogs, and salamanders
Horned grebe	<i>Podiceps auritus</i>	Wintering resident	Fish and some arthropods
Eared grebe	<i>Podiceps nigricollis</i>	TX, LA, MS, AL	Arthropods
Pied-billed grebe	<i>Podilymbus podiceps</i>	Permanent resident	Arthropods, small fish
Anhinga	<i>Anhinga anhinga</i>	Permanent resident	Swims underwater for fish, frogs, snakes, and leeches
Olivaceous cormorant	<i>Phalacrocorax olivaceus</i>	*	NA
Double-crested cormorant	<i>Phalacrocorax auritus</i>	Permanent resident	NA

\*All of these diving birds are distributed Gulfwide except where otherwise indicated.

NA = Not available.

Table 3-7

## Common Marsh or Wading Birds in the Northern Gulf of Mexico

Common Name	Scientific Name	Occurrence*	Feeding Behavior and Diet
American bittern	<i>Botaurus lentiginosus</i>	*	Amphibians, small fish, small snakes, crawfish, small rodents, and water bugs
Least bittern	<i>Ixobrychus exilis</i>	Summer resident	NA
Great blue heron	<i>Ardea herodias</i>	*	Various aquatic animals
Great egret	<i>Casmerodias albus</i>	*	Fish, frogs, snakes, crawfish, and large insects
Snowy egret	<i>Egretta thula</i>	*	Arthropods, fish
Little blue heron	<i>Egretta caerulea</i>	*	Small vertebrates, crustaceans, and large insects
Tricolored heron	<i>Egretta tricolor</i>	*	NA
Reddish egret	<i>Egretta rufescens</i>	Gulfwide except for central and eastern FL Panhandle	NA
Cattle egret	<i>Bulbulcus ibis</i>	*	NA
Green-backed heron	<i>Butorides striatus</i>	Permanent resident in central LA and eastward; summer resident, TX and western LA	NA
Black-crowned night heron	<i>Nycticorax nycticorax</i>	*	NA
Yellow-crowned night heron	<i>Nyctanassa violacea</i>	Permanent resident TX, eastern LA, MS, AL, and eastern FL Panhandle	Aquatic organisms, especially crustaceans
White ibis	<i>Eudocimus albus</i>	*	NA
Glossy ibis	<i>Plegadis falcinellus</i>	*	Snakes, crawfish, and crabs
White-faced ibis	<i>Plegadis chini</i>	Permanent resident in TX and western and central LA; summer resident in eastern LA	NA
Roseate spoonbill	<i>Ajaia ajaja</i>	Permanent resident; summer resident in LA	NA

\*All wading birds are permanent residents Gulfwide unless otherwise indicated.

NA = Not available.

Table 3-8

## Common Waterfowl in the Northern Gulf of Mexico

Common Name	Scientific Name	Occurrence*	Feeding Behavior and Diet
Wood duck	<i>Aix sponsa</i>	Year-round	Dabbler; eats plants, invertebrates, tadpoles, and salamanders
Canvasback duck	<i>Aythya valisineria</i>	Year-round	Diver; feeds on molluscs and aquatic plants
Redhead duck	<i>Aythya americana</i>	*	Diver; mostly herbivorous
Ring-necked duck	<i>Aythya collaris</i>	*	Diver
Fulvous whistling duck	<i>Dendrocygna bicolor</i>	Nests in TX, LA	Feeds nocturnally on plant seeds on shore
Lesser scaup	<i>Aythya affinis</i>	High abundance	Diver; feeds on plants and animals
Greater scaup	<i>Aythya maarila</i>	*	Feeds on plants, insects, and invertebrates in nesting season; diet at sea in winter is mostly molluscs and plants
Black scoter	<i>Melanitta nigra</i>	Low abundance	Diver; feeds mostly on molluscs
White-winged scoter	<i>Melanitta fusca</i>	TX, LA, AL; low abundance	Diver; feeds mostly on shellfish
Surf scoter	<i>Melanitta perspicilla</i>	Low abundance	Diver; feeds mostly on molluscs and crustaceans
Common goldeneye	<i>Bucephala clangula</i>	*	Diver; needs on molluscs, crustaceans, insects, and aquatic plants
Bufflehead	<i>Bucephala albeola</i>	*	Diver; in fresh water, eats aquatic adult and larval insects, snails, small fish, and aquatic plant seeds; in salt water, eats crustaceans, shellfish, and snails
Common merganser	<i>Mergus merganser</i>	*	Diver; feeds on molluscs, crustaceans, aquatic insects, and some plants
Red-breasted merganser	<i>Mergus serrator</i>	*	Eats mostly fish
Hooded merganser	<i>Lophodytes cucullatus</i>	*	Diver; thin serrated bill is adapted to taking fish; also feeds on crustaceans, aquatic insects, other animals, and plants
Tundra swan	<i>Cygnus columbianus</i>	Winters on Atlantic Coast, minor presence in Gulf	NA
Greater white-fronted goose	<i>Anser albifrons</i>	TX, LA, AL	Feeds on plants and insects
Snow goose	<i>Chen caerulescens</i>	TX, LA, MS, AL	Dabbler; grazer; herbivore
Canada goose	<i>Branta canadensis</i>	*	Dabbler; herbivore
Brant goose	<i>Branta bernicla</i>	FL	Herbivore
Mallard duck	<i>Anas platyrhynchos</i>	*	Dabbler; usually a herbivore; female supplements diet with invertebrate protein source when producing eggs
Mottled duck	<i>Anas fulvigula</i>	TX, LA year-round	Dabbler; invertebrates and some plant material
American widgeon duck	<i>Anas americana</i>	*	Dabbler; may feed on widgeon grass ( <i>Ruppia maritima</i> )
Northern pintail duck	<i>Anas acuta</i>	Abundant in TX	Dabbler mostly herbivorous
Northern shoveler duck	<i>Anas clypeata</i>	*	Dabbler; strains food through combs of teeth that are found inside the bill on each side
Blue-winged teal duck	<i>Anas discors</i>	*	Dabbler; mostly herbivorous
Cinnamon teal duck	<i>Anas cyanoptera</i>	TX, west LA	Dabbler; eats invertebrates, plant seeds, and algae; sometimes skims water surface with bill
Gadwall duck	<i>Anas strepera</i>	*	Dabbler; mostly herbivorous
Ruddy duck	<i>Oxyura jamaicensis</i>	*	Diver; mostly herbivorous

\*All waterfowl are wintering residents Gulfwide unless otherwise indicated.  
NA = Not available.

Table 3-9

## Species Listed in the Gulf of Mexico Fishery Management Plans

Species	Scientific Name	Species	Scientific Name
Red Drum (1) Red drum	<i>Sciaenops ocellatus</i>	Coastal Migratory Pelagic (3) Species in the Management Unit King mackerel Spanish mackerel Cobia	<i>Scomberomorus cavalla</i> <i>Scomberomorus maculatus</i> <i>Rachycentron canadum</i>
Reef Fish (43) Balistidae—Triggerfishes (1) Gray triggerfish	<i>Balistes caprisicus</i>	Species in the Fishery, but not in the Management Unit Cero Little tunny Dolphin Bluefish (GOM only)	<i>Scomberomorus regalis</i> <i>Euthynnus alleteratus</i> <i>Coryphaena hippurus</i> <i>Pomatomus saltatrix</i>
Carangidae—Jacks (4) Greater amberjack Lesser amberjack Almaco jack Banded rudderfish	<i>Seriola dumerili</i> <i>Seriola fasciata</i> <i>Seriola rivoliana</i> <i>Seriola zonata</i>		
Labridae—Wrasses (1) Hogfish	<i>Lachnolaimus maximus</i>	Shrimp (4) Brown shrimp White shrimp Pink shrimp Royal red shrimp	<i>Penaeus aztecus</i> <i>Penaeus setiferus</i> <i>Penaeus duorarum</i> <i>Pleoticus robustus</i>
Lutjanidae—Snappers (14) Queen snapper Mutton snapper Schoolmaster Blackfin snapper Red snapper Cubera snapper Gray snapper Dog snapper Mahogany snapper Lane snapper Silk snapper Yellowtail snapper Wenchman Vermilion snapper	<i>Etelis oculatus</i> <i>Lutjanus analis</i> <i>Lutjanus apodus</i> <i>Lutjanus buccanella</i> <i>Lutjanus campechanus</i> <i>Lutjanus cyanopterus</i> <i>Lutjanus griseus</i> <i>Lutjanus jocu</i> <i>Lutjanus mahogoni</i> <i>Lutjanus synagris</i> <i>Lutjanus vivanus</i> <i>Ocyurus chrysurus</i> <i>Pristipomoides aquilonaris</i> <i>Rhomboplites aurorubens</i>	Stone Crab (2) Species in the Management Unit Stone Crab Stone Crab (Cedar Key N)	<i>Menippe mercenaria</i> <i>Menippe adina</i>
Malacanthidae—Tilefishes (5) Goldface tilefish Blackline tilefish Anchor tilefish Blueline tilefish (Golden) Tilefish	<i>Caulolatilus chrysops</i> <i>Caulolatilus cyanops</i> <i>Caulolatilus intermedius</i> <i>Caulolatilus microps</i> <i>Lopholatilus chamaeleonticeps</i>	Spiny Lobster (2) Species in the Management Unit Spiny lobster Slipper lobster	<i>Panulirus argus</i> <i>Scyllarides nodife</i>
Serranidae—Groupers (18) Dwarf sand perch Sand perch Rock hind Speckled hind Yellowedge grouper Red hind Goliath grouper Red grouper Misty grouper Warsaw grouper Snowy grouper Nassau grouper Marbled grouper Black grouper Yellowmouth grouper Gag Scamp Yellowfin grouper	<i>Diplectrum bivittatum</i> <i>Diplectrum formosum</i> <i>Epinephelus adscensionis</i> <i>Epinephelus drummondhayi</i> <i>Epinephelus flavolimbatus</i> <i>Epinephelus guttatus</i> <i>Epinephelus itajara</i> <i>Epinephelus morio</i> <i>Epinephelus mystacinus</i> <i>Epinephelus nigritus</i> <i>Epinephelus niveatus</i> <i>Epinephelus striatus</i> <i>Epinephelus inermis</i> <i>Mycteroperca bonaci</i> <i>Mycteroperca interstitialis</i> <i>Mycteroperca microlepis</i> <i>Mycteroperca phenax</i> <i>Mycteroperca venenosa</i>	Species in the fishery but not in the Management Unit Spotted spiny lobster Smooth tail lobster Spanish slipper lobster	<i>Panulirus guttatus</i> <i>Panulirus laeviscauda</i> <i>Scyllarides aequinoctialis</i>

Source: Adopted from Table 1.5.1, GMFMC (2004).

Table 3-10

Gulf of Mexico Essential Fish Habitat Assessment  
(species under Gulf of Mexico Fishery Management Plans)

Species	Presence in Destin Dome Unit	Bay and Estuary Relationships	Adult Prey Species
Invertebrates			
brown shrimp	adult present year-round	major nursery area	ornivorous
white shrimp	occurs; only most northern part	nursery area	ornivorous
pink shrimp	not present	nursery area	ornivorous
stone crab	uncommon; only most northern part	nursery area	oportunistic carnivore
spiny lobster	occurs	none noted	mollusks and arthropods
Fish in Taxonomic Order			
gag grouper	occurs	seagrass beds, nursery nearshore	primarily fish
red grouper	adult present year-round	none noted	primarily fish
scamp grouper	occurs	none noted	primarily fish
tilefish	rare; only in deepest waters	none noted	primarily crustaceans
cobia	adult present during summer	nursery nearshore	primarily crustaceans and some fish
lesser amberjack	occurs	none noted	cephalopods
greater amberjack	occurs	none noted	variety fish, crustaceans, and cephalopods
dolphin fish	adult present year-round	none noted	pelagic fish
lane snapper	occurs	nursery nearshore	fish, crustaceans, mollusks, algae
gray snapper	adult present year-round	nursery nearshore	fish, shrimp, and crabs
red snapper	adult present year-round	nursery nearshore	fish, shrimp
red drum	uncommon; only most northern part	nursery nearshore	crustaceans
yellowtail snapper	occurs	none noted	benthic fish and crustaceans
king mackerel	adult present year-round; spawning	none noted	mostly fish, anchovies, and herrings
spanish mackerel	uncommon; northern part only	nursery nearshore	mostly fish, anchovies, and herrings
gray triggerfish	occurs	none noted	mostly bivalves and barnacles; also polychaetes and echinoderms

Table 3-11

Gulf of Mexico Essential Fish Habitat Assessment  
(highly migratory species managed by NOAA Fisheries Service)

Species	Presence in Western or Central Planning Areas; Eco-regions 3, 4, or 5 (GMFMC, 2004)	Known Prey Species
<b>Billfish</b>		
blue marlin	Juvenile/subadult and adults occur in area beyond 100-m contour	Adults: fish at surface, and deepwater: scombrids, cephalopods
white marlin	Juvenile/subadult and adults occur in area beyond 50-m contour	Juveniles/fish; adults/squid and fish
sailfish	Juvenile/subadult only occurs to south of area beyond 200-m contour	Pelagic schooling fish and squids
Swordfish	Spawning and eggs/larvae and adults occur in area beyond 100-m contour	Larvae: zooplankton, fish larvae Juveniles: fish, squid, pelagic crustaceans Adults: pelagic fish, squid, demersal fish
<b>Tunas</b>		
bluefin tuna	Spawning and eggs/larvae occur in area no juvenile/subadult or adult noted	Juveniles: crustacea, larval, and small fish
skipjack tuna	Spawning, eggs/larvae occurs to south of area beyond 200-m contour	Larvae: small fish
yellowfin tuna	Spawning and eggs/larvae, subadult, and adult occurs to south of area beyond 200-m contour	Larvae: small fish Juveniles: fish Adults: crustacea and fish
<b>Sharks</b>		
blacktip	Late juvenile/subadult only noted in area, nearshore	None noted (unknown)
bull	Late juvenile/subadult only noted in area, nearshore	None noted (unknown)
dusky	No life stage occurrence noted, but area designated as research area	None noted (unknown)
silky	Neonate/early juvenile only noted south of area beyond 200-m contour	None noted (unknown)
tiger	Neonate/early juvenile, late juvenile, subadult, and adult occurs in area	None noted (unknown)
Atlantic sharpnose	Adults only in area	None noted (unknown)
Longfin mako	Neonate/early juvenile, and juvenile/ subadult occur to south of area beyond 200-m contour; adults occur in area beyond 100-m contour	None noted (unknown)

Table 3-12

Top Species Commonly Caught by Recreational Fishers in the  
Marine Recreational Fisheries Statistics Gulf Coast States (2003)

Species	Number Fish	Inland (#)	Ocean (#)	Pounds	Inland (lb)	Ocean (lb)
Black drum	1,523,614	1,348,578	175,036	2,857,730	2,554,785	302,945
Dolphins	650,531	0	650,531	2,530,872	0	2,530,872
Gray snapper	6,073,935	3,551,826	2,522,109	1,893,108	488,321	1,404,784
Great amberjack	346,069	1,697	344,372	2,416,947	686	2,416,261
Herrings	36,080,133	28,139,743	7,940,389	319,316	262,552	56,764
King mackerel	398,234	3,166	395,068	2,763,371	14,892	2,748,479
Mycteroperca groupers	4,021,740	907,897	3,113,843	3,529,371	138,793	3,390,576
Pinfishes	9,106,417	4,607,298	4,499,120	1,775,960	763,852	1,012,108
Red drum	8,587,461	7,347,631	1,239,830	13,113,186	11,004,563	2,108,623
Red snapper	2,934,322	14,991	2,919,330	3,921,340	7,310	3,914,031
Saltwater catfishes	11,767,737	8,261,074	3,506,663	793,312	471,526	321,786
Sand seatrout	4,062,981	3,579,486	483,495	1,556,192	1,377,009	179,183
Sheepshead	3,945,716	3,173,873	771,843	5,002,901	3,661,345	1,341,554
Spotted seatrout	28,785,103	23,018,643	5,766,460	11,881,531	9,950,455	1,931,077

Source: USDOC, NOAA, National Ocean Service, 2005.

Table 3-13

Recreational Fishing Participation in the  
Marine Recreational Fisheries Statistics Gulf Coast States (2003)

State	Participation Estimates (number of people)			
	Coastal	Non-Coastal	Out-of-State	Total
West Florida	1,965,124	0	2,317,524	4,282,648
Alabama	187,257	122,899	213,903	524,059
Mississippi	159,459	53,209	48,328	260,996
Louisiana	726,741	79,422	204,406	1,010,569
Gulf Total	3,038,581	255,530	2,784,161	6,078,272

Source: USDOC, NOAA, National Ocean Service, 2005.

Table 3-14

Mode of Fishing in the Marine Recreational Fisheries Statistics Gulf Coast States  
(not including Texas) (2003)

State	Area	Number of Trips	% State Total
Alabama	Shore Ocean ( $\leq 3$ mi)	407,097	27.1%
	Shore Inland	180,405	12.0%
	Charter Ocean ( $\leq 3$ mi)	8,457	0.6%
	Charter Ocean ( $> 3$ mi)	54,233	3.6%
	Charter Inland	3,874	0.3%
	Private/Rental Ocean ( $\leq 3$ mi)	265,688	17.7%
	Private/Rental Ocean ( $> 3$ mi)	250,154	16.7%
	Private/Rental Inland	330,082	22.0%
	Total	1,499,990	
West Florida	Shore Ocean ( $\leq 10$ mi)	2,809,906	17.6%
	Shore Inland	3,481,135	21.7%
	Charter Ocean ( $\leq 10$ mi)	136,633	0.9%
	Charter Ocean ( $> 10$ mi)	273,038	1.7%
	Charter Inland	86,539	0.5%
	Private/Rental Ocean ( $\leq 10$ mi)	3,165,002	19.8%
	Private/Rental Ocean ( $> 10$ mi)	1,232,367	7.7%
	Private/Rental Inland	4,824,355	30.1%
	Total	16,008,975	
Louisiana	Shore Ocean ( $\leq 3$ mi)	151,608	3.5%
	Shore Inland	720,392	16.9%
	Charter Ocean ( $\leq 3$ mi)	6,973	0.2%
	Charter Ocean ( $> 3$ mi)	25,519	0.6%
	Charter Inland	71,690	1.7%
	Private/Rental Ocean ( $\leq 3$ mi)	101,735	2.4%
	Private/Rental Ocean ( $> 3$ mi)	87,895	2.1%
	Private/Rental Inland	3,105,109	72.7%
	Total	4,270,921	
Mississippi	Shore Ocean ( $\leq 3$ mi)	24,025	2.0%
	Shore Inland	404,762	33.7%
	Charter Ocean ( $\leq 3$ mi)	7,706	0.6%
	Charter Ocean ( $> 3$ mi)	6,265	0.5%
	Charter Inland	10,345	0.9%
	Private/Rental Ocean ( $\leq 3$ mi)	2,608	0.2%
	Private/Rental Ocean ( $> 3$ mi)	52,814	4.4%
	Private/Rental Inland	692,198	57.6%
	Total	1,200,723	
Gulf Total	Shore Ocean ( $\leq 3$ mi)	3,392,636	14.8%
	Shore Inland	4,786,694	20.8%
	Charter Ocean ( $\leq 3$ mi)	159,769	0.7%
	Charter Ocean ( $> 3$ mi)	359,055	1.6%
	Charter Inland	172,448	0.8%
	Private/Rental Ocean ( $\leq 3$ mi)	3,535,033	15.4%
	Private/Rental Ocean ( $> 3$ mi)	1,623,230	7.1%
	Private/Rental Inland	8,951,744	39.0%
	Total	22,980,609	

Source: USDOC, NOAA, National Ocean Service, 2005.



Table 3-15

## Employment in Tourism-Related Industries by Labor Market Area in 2002

Labor Market Area	Total Mid-March Employees	Total Establishments	Establishments by Employment Size Class			
			1 to 9	10 to 49	50 to 249	250 or more
Mobile	41,434	2,311	1,348	784	167	12
Alabama State Total	252,651	14,443	8,610	4,733	1,036	64
Biloxi – Gulfport	45,952	1,643	920	594	110	19
Mississippi State Total	192,921	9,518	5,709	3,143	595	71
Lake Charles	22,816	1,014	585	357	61	11
Lafayette	32,767	1,839	1,089	624	116	10
Baton Rouge	50,826	2,411	1,326	854	216	15
Houma	17,640	1,011	639	310	56	6
New Orleans	123,008	5,295	3,102	1,665	478	50
Louisiana State Total	318,616	15,221	8,911	5,022	1,175	113
Brownsville	46,838	2,472	1,455	843	157	17
Corpus Christi	31,579	1,945	1,205	620	112	8
Brazoria	14,762	960	610	291	55	4
Victoria	12,095	882	559	281	41	1
Beaumont - Port Arthur	25,836	1,509	954	436	112	7
Houston - Galveston	309,195	14,484	8,604	4,461	1,316	103
Texas State Total	1,379,094	68,380	39,644	22,703	5,592	441
Panama City	16,176	932	569	294	66	3
Pensacola	43,848	2,229	1,352	672	190	15
Lake City	6,901	498	348	126	22	2
Tallahassee	27,130	1,395	805	467	113	10
Gainesville	20,807	1,080	658	323	91	8
Ocala	19,913	1,128	736	292	96	4
Tampa - St. Petersburg	169,975	8,033	5,044	2,116	819	54
Ft. Myers	62,385	2,773	1,602	842	310	19
Miami	290,494	15,205	10,245	3,656	1,164	140
Sarasota	51,503	2,595	1,583	733	269	10
Florida State Total	1,227,526	58,002	36,503	15,672	5,376	451

Source: USDOC, Bureau of the Census, 2006.

Table 3-16

## Employment in Tourism-Related Industries by Economic Impact Area in 2002

Economic Impact Area (EIA)	Total Mid-March Employees	Total Establishments	Establishments by Employment Size Class			
			1 to 9	10 to 49	50 to 249	250 or more
AL-1	41,434	2,311	1,348	784	167	12
MS-1	45,952	1,643	920	594	110	19
LA-1	22,816	1,014	585	357	61	11
LA-2	32,767	1,839	1,089	624	116	10
LA-3	68,466	3,422	1,965	1,164	272	21
LA-4	123,008	5,295	3,102	1,665	478	50
Louisiana EIA Total	247,057	11,570	6,741	3,810	927	92
TX-1	78,417	4,417	2,660	1,463	269	25
TX-2	26,857	1,842	1,169	572	96	5
TX-3	335,031	15,993	9,558	4,897	1,428	110
Texas EIA Total	440,305	22,252	13,387	6,932	1,793	140
FL-1	60,024	3,161	1,921	966	256	18
FL-2	34,031	1,893	1,153	593	135	12
FL-3	210,695	10,241	6,438	2,731	1,006	66
FL-4	404,382	20,573	13,430	5,231	1,743	169
Florida EIA Total	709,132	35,868	22,942	9,521	3,140	265

Source: USDOC, Bureau of the Census, 2006.

Table 3-17

Classification of the Gulf Economic Impact Areas

Economic Impact Area				Economic Impact Area				Economic Impact Area			
State	Area	Labor Market	County	State	Area	Labor Market	County	State	Area	Labor Market	County
Alabama	AL-1	Mobile	Baldwin Clarke Conecuh Escambia Mobile Monroe Washington Wilcox	Texas	TX-1	Brownsville	Cameron Hidalgo Starr Willacy	Florida	FL-1	Panama City	Bay Franklin Gulf
Mississippi	MS-1	Biloxi-Gulfport	George Greene Hancock Harrison Jackson Pearl River Stone	TX-1	Corpus Christi	Aransas Brooks Duval Jim Wells Kenedy Kleberg Nueces Refugio San Patricio	FL-1	Pensacola	Escambia Okaloosa Santa Rosa Walton		
Louisiana	LA-1	Lake Charles	Allen Beauregard Calcasieu Cameron Jefferson Davis Vernon	TX-2	Brazoria	Brazoria Matagorda Wharton	FL-2	Tallahassee	Calhoun Gadsden Holmes Jackson Jefferson Leon Liberty Wakulla Washington		
Louisiana	LA-2	Lafayette	Acadia Evangeline Iberia Lafayette St. Landry St. Martin Vermillion	TX-2	Victoria	Calhoun Colorado Dewitt Fayette Goliad Gonzales Jackson Lavaca Victoria	FL-2	Lake City	Columbia Hamilton Lafayette Madison Suwannee Taylor		
Louisiana	LA-3	Baton Rouge	Ascension East Baton Rouge Iberville Livingston Tangipahoa West Baton Rouge	TX-3	Beaumont - Port Arthur	Hardin Jasper Jefferson Newton Orange Polk Tyler	FL-3	Ocala	Citrus Marion		
Louisiana	LA-3	Houma	Assumption Lafourche St. Mary Terrebonne	TX-3	Houston - Galveston	Austin Chambers Fort Bend Galveston Harris Liberty Montgomery San Jacinto Waller Washington	FL-3	Gainesville	Alachua Bradford Dixie Gilchrist Levy Union		
Louisiana	LA-4	New Orleans	Jefferson Orleans Plaquemines St. Bernard St. Charles St. James St. John the Baptist St. Tammany Washington	TX-3	Houston - Galveston	Austin Chambers Fort Bend Galveston Harris Liberty Montgomery San Jacinto Waller Washington	FL-3	Tampa-St. Petersburg	Hernando Hillsborough Pasco Pinellas		
Louisiana	LA-4	New Orleans	Jefferson Orleans Plaquemines St. Bernard St. Charles St. James St. John the Baptist St. Tammany Washington	TX-3	Houston - Galveston	Austin Chambers Fort Bend Galveston Harris Liberty Montgomery San Jacinto Waller Washington	FL-4	Ft. Myers	Collier Lee		
Louisiana	LA-4	New Orleans	Jefferson Orleans Plaquemines St. Bernard St. Charles St. James St. John the Baptist St. Tammany Washington	TX-3	Houston - Galveston	Austin Chambers Fort Bend Galveston Harris Liberty Montgomery San Jacinto Waller Washington	FL-4	Miami	Broward Miami-Dade Monroe		
Louisiana	LA-4	New Orleans	Jefferson Orleans Plaquemines St. Bernard St. Charles St. James St. John the Baptist St. Tammany Washington	TX-3	Houston - Galveston	Austin Chambers Fort Bend Galveston Harris Liberty Montgomery San Jacinto Waller Washington	FL-4	Sarasota	Charlotte DeSoto Manatee Sarasota		

Table 3-18

## Demographic and Employment Baseline Projections for Economic Impact Area TX-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	1,172.83	1,488.18	1,581.51	1,617.80	1,651.49	1,686.51	1,717.47	1,748.38	1,779.06	1,809.74	1,967.42	2,128.28	2,293.97	2,467.95
AGE UNDER 19 YEARS	37.80%	36.11%	35.96%	35.75%	35.42%	35.13%	34.84%	34.60%	34.31%	33.99%	32.47%	31.07%	28.89%	27.61%
AGE 20 TO 34 YEARS	22.60%	21.36%	21.71%	21.90%	21.82%	21.66%	21.53%	21.37%	21.29%	21.27%	20.77%	20.01%	20.61%	20.20%
AGE 35 TO 49 YEARS	17.93%	19.50%	18.97%	18.85%	18.90%	18.98%	19.03%	19.11%	19.17%	19.16%	19.52%	20.16%	19.86%	19.71%
AGE 50 TO 64 YEARS	11.33%	12.33%	12.78%	13.01%	13.39%	13.78%	14.14%	14.46%	14.72%	14.97%	15.71%	15.95%	16.39%	16.92%
AGE 65 YEARS AND OVER	10.34%	10.70%	10.58%	10.50%	10.47%	10.46%	10.46%	10.47%	10.51%	10.61%	11.53%	12.81%	14.24%	15.56%
MEDIAN AGE OF POPULATION (YEARS)	29.89	32.65	33.01	33.12	33.50	33.88	34.26	34.61	34.94	35.28	36.59	37.90	39.52	41.06
WHITE POPULATION	25.27%	20.45%	19.16%	18.78%	18.45%	18.16%	17.89%	17.63%	17.38%	17.15%	16.14%	15.29%	14.61%	14.09%
BLACK POPULATION	1.38%	1.38%	1.29%	1.26%	1.25%	1.24%	1.23%	1.22%	1.21%	1.20%	1.16%	1.13%	1.11%	1.09%
NATIVE AMERICAN POPULATION	0.14%	0.17%	0.18%	0.18%	0.17%	0.17%	0.17%	0.17%	0.17%	0.16%	0.15%	0.14%	0.13%	0.12%
ASIAN AND PACIFIC ISLANDER POP	0.40%	0.73%	0.78%	0.80%	0.81%	0.83%	0.84%	0.85%	0.87%	0.88%	0.92%	0.96%	0.98%	1.01%
HISPANIC POPULATION	72.81%	77.27%	78.59%	78.98%	79.32%	79.61%	79.87%	80.13%	80.38%	80.61%	81.62%	82.48%	83.17%	83.69%
MALE POPULATION	48.53%	48.68%	48.69%	48.71%	48.68%	48.68%	48.67%	48.66%	48.65%	48.64%	48.59%	48.53%	48.44%	48.35%
TOTAL EMPLOYMENT (THOUSANDS)	471.14	640.56	688.24	702.46	716.70	730.94	745.17	759.41	773.64	787.88	859.04	930.22	1,001.40	1,072.57
FARM EMPLOYMENT	3.25%	2.00%	1.89%	1.84%	1.80%	1.76%	1.72%	1.68%	1.65%	1.61%	1.46%	1.33%	1.21%	1.12%
AGRICULTURAL SERVICES, OTHER	2.26%	2.41%	2.55%	2.53%	2.52%	2.50%	2.49%	2.48%	2.46%	2.45%	2.39%	2.35%	2.30%	2.27%
MINING	2.81%	1.58%	1.54%	1.51%	1.49%	1.47%	1.45%	1.42%	1.41%	1.39%	1.30%	1.23%	1.17%	1.11%
CONSTRUCTION	5.68%	6.87%	6.66%	6.66%	6.65%	6.65%	6.65%	6.64%	6.64%	6.64%	6.62%	6.61%	6.60%	6.60%
MANUFACTURING	8.57%	6.37%	4.90%	4.84%	4.79%	4.74%	4.69%	4.65%	4.60%	4.56%	4.36%	4.20%	4.05%	3.93%
TRANSPORT, COMM. & PUBLIC UTIL	3.81%	4.44%	4.29%	4.27%	4.26%	4.25%	4.23%	4.22%	4.21%	4.20%	4.15%	4.11%	4.07%	4.04%
WHOLESALE TRADE	3.93%	3.34%	3.05%	3.02%	2.99%	2.96%	2.93%	2.91%	2.88%	2.86%	2.75%	2.66%	2.58%	2.51%
RETAIL TRADE	19.05%	17.89%	17.78%	17.67%	17.58%	17.48%	17.39%	17.31%	17.22%	17.14%	16.78%	16.47%	16.21%	15.98%
FINANCE, INS. & REAL ESTATE	5.80%	5.67%	6.01%	5.97%	5.93%	5.89%	5.85%	5.81%	5.78%	5.75%	5.59%	5.47%	5.36%	5.26%
SERVICES	24.72%	30.13%	32.73%	32.96%	33.19%	33.40%	33.61%	33.80%	33.99%	34.18%	35.01%	35.71%	36.31%	36.83%
FEDERAL CIVILIAN GOVT	2.53%	1.92%	1.78%	1.76%	1.73%	1.71%	1.68%	1.66%	1.64%	1.62%	1.53%	1.45%	1.38%	1.32%
FEDERAL MILITARY GOVT	1.65%	1.65%	1.44%	1.41%	1.38%	1.36%	1.34%	1.31%	1.29%	1.27%	1.17%	1.09%	1.02%	0.96%
STATE AND LOCAL GOVT	15.95%	15.74%	15.40%	15.55%	15.70%	15.84%	15.97%	16.10%	16.22%	16.34%	16.88%	17.33%	17.72%	18.06%
TOTAL EARNINGS (MILLIONS 1996 \$)	10,800.99	16,122.59	18,078.88	18,608.83	19,122.16	19,641.84	20,171.93	20,703.28	21,246.07	21,800.60	24,759.66	28,058.99	31,743.04	35,862.37
FARM EARNINGS	1.32%	1.27%	1.19%	1.08%	0.97%	0.96%	0.95%	0.94%	0.93%	0.92%	0.88%	0.83%	0.79%	0.75%
AGRICULTURAL SERVICES, OTHER	1.24%	1.08%	1.02%	1.01%	1.01%	1.00%	0.99%	0.99%	0.98%	0.97%	0.94%	0.92%	0.90%	0.88%
MINING	4.35%	3.04%	2.96%	3.09%	3.02%	2.95%	2.89%	2.82%	2.76%	2.71%	2.44%	2.21%	2.00%	1.82%
CONSTRUCTION	5.83%	6.52%	6.50%	6.67%	6.65%	6.62%	6.59%	6.56%	6.53%	6.50%	6.36%	6.22%	6.09%	5.96%
MANUFACTURING	11.24%	9.44%	8.24%	8.14%	8.03%	7.93%	7.85%	7.78%	7.71%	7.63%	7.23%	6.79%	6.32%	5.82%
TRANSPORT, COMM. & PUBLIC UTIL	5.58%	6.37%	5.64%	5.61%	5.58%	5.56%	5.53%	5.51%	5.48%	5.46%	5.35%	5.26%	5.17%	5.10%
WHOLESALE TRADE	4.71%	4.45%	4.60%	4.55%	4.49%	4.43%	4.38%	4.33%	4.28%	4.23%	4.00%	3.80%	3.61%	3.44%
RETAIL TRADE	12.55%	11.88%	11.96%	11.87%	11.78%	11.70%	11.63%	11.56%	11.50%	11.44%	11.13%	10.84%	10.56%	10.29%
FINANCE, INS. & REAL ESTATE	3.83%	4.90%	5.41%	5.39%	5.40%	5.41%	5.41%	5.42%	5.42%	5.42%	5.44%	5.46%	5.47%	5.48%
SERVICES	22.78%	24.95%	26.51%	26.76%	27.04%	27.31%	27.58%	27.84%	28.11%	28.38%	29.74%	31.15%	32.60%	34.09%
FEDERAL CIVILIAN GOVT	5.72%	4.83%	4.73%	4.68%	4.63%	4.58%	4.52%	4.46%	4.41%	4.35%	4.09%	3.84%	3.62%	3.41%
FEDERAL MILITARY GOVT	2.24%	2.74%	2.56%	2.37%	2.34%	2.31%	2.26%	2.25%	2.23%	2.20%	2.07%	1.94%	1.82%	1.70%
STATE AND LOCAL GOVT	18.60%	18.52%	18.68%	18.88%	19.06%	19.24%	19.39%	19.53%	19.66%	19.79%	20.33%	20.74%	21.04%	21.25%
PERSONAL INCOME (MILLIONS 1996 \$)	15,354.71	23,186.51	25,745.65	26,534.84	27,325.92	28,110.62	28,913.42	29,728.96	30,564.67	31,421.16	36,037.74	41,275.27	47,232.58	54,025.27
INCOME PER CAPITA (1996 \$)	13,092.03	15,580.45	16,279.13	16,401.79	16,546.21	16,667.96	16,834.90	17,003.70	17,180.24	17,362.23	18,317.26	19,393.71	20,589.88	21,890.76
W&P WEALTH INDEX (U.S. = 100)	65.16	65.20	68.06	69.54	69.36	69.31	69.25	69.20	69.15	69.10	68.93	68.81	68.75	68.75
PERSONS PER HOUSEHOLD (PEOPLE)	3.34	3.29	3.28	3.26	3.25	3.24	3.23	3.22	3.21	3.20	3.17	3.15	3.15	3.17
MEAN HOUSEHOLD INCOME (1996 \$)	41,608.62	50,577.77	53,915.69	56,277.77	56,582.31	56,790.23	57,132.85	57,427.38	57,811.54	58,213.31	60,461.77	63,408.15	66,916.85	71,012.23
NUMBER OF HOUSEHOLDS (THOUSANDS)	351.28	451.74	482.89	495.61	507.65	520.28	531.62	542.91	554.10	565.29	621.48	675.50	727.93	779.01
LESS THAN \$10,000 (2000 \$)	22.00%	17.46%	16.66%	16.41%	16.16%	15.92%	15.67%	15.44%	15.21%	14.98%	13.88%	12.72%	11.33%	9.77%
\$10,000 TO \$19,999	20.87%	19.58%	18.71%	18.44%	18.18%	17.91%	17.63%	17.37%	17.11%	16.85%	15.62%	14.32%	12.76%	11.01%
\$20,000 TO \$29,999	15.98%	15.90%	15.55%	15.43%	15.31%	15.17%	15.01%	14.83%	14.65%	14.45%	13.50%	12.46%	11.14%	9.62%
\$30,000 TO \$44,999	16.69%	17.42%	18.02%	18.23%	18.43%	18.64%	18.84%	19.05%	19.25%	19.44%	20.13%	20.48%	20.10%	18.44%
\$45,000 TO \$59,999	10.36%	11.21%	11.76%	11.93%	12.10%	12.27%	12.45%	12.64%	12.83%	13.02%	14.02%	15.23%	16.85%	18.90%
\$60,000 TO \$74,999	5.97%	6.93%	7.26%	7.36%	7.46%	7.57%	7.68%	7.79%	7.90%	8.01%	8.61%	9.35%	10.49%	12.18%
\$75,000 TO \$99,999	3.94%	5.97%	6.24%	6.32%	6.40%	6.49%	6.58%	6.67%	6.76%	6.86%	7.35%	7.97%	8.94%	10.35%
\$100,000 OR MORE	4.17%	5.53%	5.80%	5.87%	5.96%	6.04%	6.13%	6.22%	6.31%	6.40%	6.87%	7.47%	8.38%	9.73%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 13 counties in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-19

Demographic and Employment Baseline Projections for Economic Impact Area TX-2

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	474.95	548.56	571.70	579.63	587.87	596.61	602.86	609.11	615.29	621.49	654.09	687.93	723.40	761.46
AGE UNDER 19 YEARS	31.99%	30.90%	30.30%	29.92%	29.57%	29.24%	28.97%	28.77%	28.55%	28.32%	27.72%	27.70%	27.36%	27.07%
AGE 20 TO 34 YEARS	22.57%	18.42%	19.33%	19.72%	19.85%	19.92%	20.02%	20.16%	20.37%	20.61%	21.02%	19.66%	18.99%	18.65%
AGE 35 TO 49 YEARS	20.11%	23.61%	22.66%	22.28%	22.01%	21.69%	21.38%	20.91%	20.36%	19.82%	18.14%	18.91%	19.74%	20.41%
AGE 50 TO 64 YEARS	13.05%	14.69%	15.59%	15.99%	16.49%	17.06%	17.47%	17.95%	18.40%	18.86%	19.73%	18.81%	17.13%	15.85%
AGE 65 YEARS AND OVER	12.28%	12.37%	12.13%	12.10%	12.08%	12.09%	12.14%	12.21%	12.32%	12.38%	13.39%	14.92%	16.77%	18.03%
MEDIAN AGE OF POPULATION (YEARS)	34.76	37.62	37.69	37.79	37.99	38.21	38.35	38.49	38.61	38.68	38.84	39.34	40.22	41.25
WHITE POPULATION	67.28%	61.90%	59.98%	59.33%	58.84%	58.34%	57.82%	57.32%	56.83%	56.34%	53.88%	51.39%	48.93%	46.47%
BLACK POPULATION	9.05%	8.81%	8.97%	9.10%	9.11%	9.12%	9.13%	9.14%	9.15%	9.18%	9.27%	9.35%	9.43%	9.55%
NATIVE AMERICAN POPULATION	0.24%	0.32%	0.33%	0.34%	0.33%	0.34%	0.33%	0.33%	0.33%	0.33%	0.32%	0.30%	0.28%	0.26%
ASIAN AND PACIFIC ISLANDER POP	0.77%	1.46%	1.99%	2.17%	2.24%	2.32%	2.40%	2.48%	2.56%	2.64%	3.02%	3.38%	3.79%	4.35%
HISPANIC POPULATION	22.66%	27.52%	28.74%	29.07%	29.48%	29.87%	30.31%	30.73%	31.12%	31.51%	33.51%	35.59%	37.56%	39.37%
MALE POPULATION	50.01%	50.31%	50.37%	50.39%	50.40%	50.39%	50.40%	50.40%	50.40%	50.40%	50.38%	50.34%	50.22%	50.10%
TOTAL EMPLOYMENT (THOUSANDS)	237.42	277.18	279.60	284.41	289.19	294.37	299.12	303.86	308.58	313.30	336.81	360.13	383.25	406.15
FARM EMPLOYMENT	9.36%	8.80%	8.90%	8.81%	8.73%	8.64%	8.57%	8.49%	8.42%	8.35%	8.04%	7.78%	7.55%	7.36%
AGRICULTURAL SERVICES, OTHER	1.88%	2.11%	2.28%	2.27%	2.25%	2.23%	2.22%	2.21%	2.19%	2.18%	2.13%	2.09%	2.05%	2.03%
MINING	3.47%	2.54%	2.34%	2.33%	2.33%	2.32%	2.31%	2.31%	2.30%	2.30%	2.28%	2.27%	2.26%	2.25%
CONSTRUCTION	9.28%	9.57%	9.06%	9.07%	9.09%	9.11%	9.12%	9.13%	9.15%	9.16%	9.22%	9.28%	9.34%	9.40%
MANUFACTURING	13.53%	11.99%	10.24%	10.21%	10.17%	10.14%	10.11%	10.08%	10.05%	10.03%	9.90%	9.80%	9.71%	9.64%
TRANSPORT, COMM. & PUBLIC UTIL	4.19%	4.06%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.17%	4.17%	4.18%	4.19%
WHOLESALE TRADE	3.44%	3.36%	3.24%	3.24%	3.24%	3.24%	3.23%	3.23%	3.23%	3.22%	3.21%	3.20%	3.19%	3.18%
RETAIL TRADE	15.23%	15.30%	15.66%	15.59%	15.53%	15.47%	15.41%	15.36%	15.31%	15.26%	15.05%	14.86%	14.69%	14.53%
FINANCE, INS. & REAL ESTATE	5.01%	5.83%	6.21%	6.21%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.23%	6.23%	6.24%	6.26%
SERVICES	21.20%	22.37%	23.65%	23.79%	23.93%	24.06%	24.18%	24.29%	24.40%	24.51%	24.98%	25.36%	25.67%	25.92%
FEDERAL CIVILIAN GOVT	0.53%	0.56%	0.47%	0.47%	0.46%	0.45%	0.45%	0.44%	0.44%	0.43%	0.41%	0.39%	0.37%	0.35%
FEDERAL MILITARY GOVT	0.77%	0.54%	0.54%	0.53%	0.52%	0.51%	0.50%	0.49%	0.49%	0.48%	0.44%	0.41%	0.39%	0.36%
STATE AND LOCAL GOVT	12.10%	12.98%	13.25%	13.32%	13.39%	13.45%	13.51%	13.57%	13.63%	13.69%	13.94%	14.16%	14.35%	14.53%
TOTAL EARNINGS (MILLIONS 1996 \$)	6,024.98	7,752.79	7,842.02	7,978.73	8,168.80	8,375.57	8,574.20	8,773.45	8,975.67	9,180.92	10,253.64	11,407.33	12,647.26	13,979.67
FARM EARNINGS	3.05%	3.02%	2.78%	2.75%	2.77%	2.79%	2.81%	2.83%	2.85%	2.88%	2.99%	3.10%	3.22%	3.34%
AGRICULTURAL SERVICES, OTHER	0.99%	1.19%	1.10%	1.05%	1.04%	1.03%	1.03%	1.02%	1.01%	1.01%	0.98%	0.96%	0.95%	0.95%
MINING	4.71%	4.10%	4.02%	4.51%	4.47%	4.42%	4.38%	4.34%	4.30%	4.27%	4.09%	3.93%	3.78%	3.64%
CONSTRUCTION	11.59%	10.98%	9.97%	10.40%	10.40%	10.39%	10.38%	10.36%	10.34%	10.32%	10.24%	10.17%	10.12%	10.07%
MANUFACTURING	26.75%	23.49%	22.75%	22.46%	22.33%	22.23%	22.17%	22.12%	22.06%	21.99%	21.57%	20.99%	20.26%	19.40%
TRANSPORT, COMM. & PUBLIC UTIL	6.48%	6.89%	6.88%	6.47%	6.47%	6.47%	6.47%	6.46%	6.46%	6.46%	6.46%	6.47%	6.49%	6.53%
WHOLESALE TRADE	3.94%	4.43%	4.48%	3.98%	3.97%	3.96%	3.95%	3.94%	3.92%	3.91%	3.85%	3.80%	3.74%	3.69%
RETAIL TRADE	8.89%	9.06%	9.19%	9.16%	9.10%	9.05%	9.00%	8.96%	8.92%	8.88%	8.70%	8.54%	8.40%	8.28%
FINANCE, INS. & REAL ESTATE	2.81%	4.11%	3.99%	4.11%	4.14%	4.17%	4.19%	4.21%	4.23%	4.25%	4.35%	4.44%	4.54%	4.63%
SERVICES	15.92%	17.77%	18.53%	18.83%	18.97%	19.11%	19.23%	19.35%	19.48%	19.61%	20.31%	21.09%	21.94%	22.87%
FEDERAL CIVILIAN GOVT	0.99%	1.03%	0.93%	0.93%	0.92%	0.91%	0.90%	0.89%	0.87%	0.86%	0.81%	0.77%	0.73%	0.69%
FEDERAL MILITARY GOVT	0.39%	0.29%	0.57%	0.37%	0.37%	0.36%	0.36%	0.35%	0.35%	0.35%	0.33%	0.31%	0.29%	0.28%
STATE AND LOCAL GOVT	13.49%	13.65%	14.80%	14.99%	15.05%	15.11%	15.15%	15.17%	15.20%	15.22%	15.34%	15.44%	15.54%	15.63%
PERSONAL INCOME (MILLIONS 1996 \$)	8,995.63	12,824.33	13,248.81	13,578.15	13,891.24	14,224.77	14,540.46	14,860.01	15,185.08	15,515.68	17,256.81	19,155.79	21,230.19	23,500.26
INCOME PER CAPITA (1996 \$)	18,940.13	23,378.22	23,174.25	23,425.51	23,629.62	23,842.55	24,119.17	24,396.39	24,679.54	24,965.45	26,382.76	27,845.47	29,347.63	30,862.27
W&P WEALTH INDEX (U.S. = 100)	82.36	80.00	80.02	79.21	79.30	79.44	79.56	79.69	79.82	79.94	80.48	80.91	81.23	81.43
PERSONS PER HOUSEHOLD (PEOPLE)	2.82	2.82	2.79	2.78	2.78	2.77	2.76	2.75	2.75	2.74	2.72	2.72	2.74	2.77
MEAN HOUSEHOLD INCOME (1996 \$)	46,968.25	56,902.33	56,386.33	56,113.83	56,732.50	57,188.92	57,812.83	58,451.67	59,122.58	59,803.83	63,432.08	67,669.08	72,469.42	77,850.25
NUMBER OF HOUSEHOLDS (THOUSANDS)	168.23	194.83	204.81	208.22	211.77	215.55	218.41	221.23	224.00	226.76	240.49	253.03	264.48	274.90
LESS THAN \$10,000 (2000 \$)	14.79%	10.45%	10.10%	9.93%	9.75%	9.61%	9.47%	9.33%	9.19%	9.06%	8.33%	7.50%	6.64%	5.80%
\$10,000 TO \$19,999	15.67%	14.02%	13.58%	13.37%	13.13%	12.94%	12.77%	12.59%	12.41%	12.23%	11.29%	10.22%	9.07%	7.95%
\$20,000 TO \$29,999	14.50%	13.93%	13.55%	13.34%	13.12%	12.94%	12.77%	12.60%	12.43%	12.26%	11.36%	10.33%	9.20%	8.09%
\$30,000 TO \$44,999	18.43%	17.72%	17.76%	17.62%	17.56%	17.50%	17.43%	17.35%	17.26%	17.16%	16.47%	15.25%	13.60%	11.94%
\$45,000 TO \$59,999	14.12%	13.59%	13.84%	13.96%	14.12%	14.24%	14.36%	14.48%	14.59%	14.70%	15.30%	15.99%	15.95%	14.99%
\$60,000 TO \$74,999	9.74%	10.45%	10.72%	10.90%	11.08%	11.22%	11.37%	11.52%	11.67%	11.83%	12.73%	13.94%	15.53%	17.00%
\$75,000 TO \$99,999	6.59%	10.11%	10.41%	10.62%	10.81%	10.96%	11.10%	11.26%	11.41%	11.57%	12.46%	13.61%	15.26%	17.41%
\$100,000 OR MORE	6.15%	9.73%	10.04%	10.25%	10.43%	10.58%	10.72%	10.87%	11.03%	11.18%	12.05%	13.16%	14.74%	16.82%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 12 counties in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-20

## Demographic and Employment Baseline Projections for Economic Impact Area TX-3

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	4,078.98	5,026.48	5,340.67	5,437.10	5,533.80	5,665.75	5,739.75	5,813.67	5,886.89	5,960.20	6,341.43	6,733.60	7,141.18	7,574.15
AGE UNDER 19 YEARS	31.95%	31.56%	31.19%	30.91%	30.76%	30.59%	30.45%	30.31%	30.12%	29.92%	29.23%	29.09%	28.73%	28.29%
AGE 20 TO 34 YEARS	26.44%	22.56%	22.43%	22.39%	22.21%	22.03%	21.90%	21.86%	21.88%	21.95%	22.09%	21.37%	20.91%	20.50%
AGE 35 TO 49 YEARS	21.92%	23.91%	23.19%	22.99%	22.82%	22.62%	22.40%	22.09%	21.79%	21.46%	20.33%	20.18%	20.11%	20.53%
AGE 50 TO 64 YEARS	11.50%	13.54%	14.79%	15.29%	15.75%	16.25%	16.62%	16.99%	17.30%	17.63%	17.94%	17.39%	16.67%	16.12%
AGE 65 YEARS AND OVER	8.18%	8.43%	8.41%	8.43%	8.46%	8.51%	8.62%	8.75%	8.90%	9.04%	10.41%	11.98%	13.58%	14.56%
MEDIAN AGE OF POPULATION (YEARS)	33.65	35.89	35.87	35.93	36.11	36.31	36.47	36.61	36.75	36.84	37.09	37.95	38.94	39.57
WHITE POPULATION	59.17%	49.94%	47.75%	47.07%	46.43%	45.82%	45.21%	44.60%	44.01%	43.44%	40.70%	38.14%	35.78%	33.52%
BLACK POPULATION	18.43%	17.89%	17.61%	17.52%	17.40%	17.28%	17.16%	17.06%	16.96%	16.86%	16.33%	15.75%	15.16%	14.60%
NATIVE AMERICAN POPULATION	0.24%	0.29%	0.29%	0.29%	0.29%	0.29%	0.28%	0.28%	0.28%	0.28%	0.26%	0.24%	0.22%	0.20%
ASIAN AND PACIFIC ISLANDER POP	3.27%	4.95%	5.29%	5.38%	5.50%	5.61%	5.73%	5.84%	5.96%	6.08%	6.65%	7.21%	7.79%	8.47%
HISPANIC POPULATION	18.89%	26.93%	29.07%	29.73%	30.39%	31.00%	31.62%	32.21%	32.79%	33.34%	36.05%	38.65%	41.04%	43.21%
MALE POPULATION	49.55%	49.77%	49.88%	49.91%	49.92%	49.92%	49.92%	49.92%	49.91%	49.91%	49.86%	49.78%	49.67%	49.55%
TOTAL EMPLOYMENT (THOUSANDS)	2,322.69	3,001.89	3,064.36	3,125.52	3,186.72	3,272.69	3,333.08	3,393.48	3,453.88	3,514.28	3,816.31	4,118.50	4,421.00	4,723.95
FARM EMPLOYMENT	0.74%	0.67%	0.67%	0.66%	0.65%	0.64%	0.63%	0.63%	0.62%	0.61%	0.58%	0.56%	0.54%	0.52%
AGRICULTURAL SERVICES, OTHER	0.85%	1.05%	1.22%	1.21%	1.21%	1.21%	1.20%	1.20%	1.19%	1.19%	1.17%	1.15%	1.14%	1.13%
MINING	3.93%	2.79%	2.50%	2.50%	2.50%	2.50%	2.50%	2.49%	2.49%	2.49%	2.48%	2.47%	2.47%	2.46%
CONSTRUCTION	7.28%	7.87%	7.65%	7.64%	7.63%	7.61%	7.60%	7.59%	7.58%	7.57%	7.53%	7.49%	7.46%	7.43%
MANUFACTURING	9.63%	8.74%	7.55%	7.51%	7.47%	7.42%	7.38%	7.35%	7.31%	7.28%	7.12%	6.99%	6.87%	6.77%
TRANSPORT, COMM. & PUBLIC UTIL	6.10%	6.61%	6.07%	6.04%	6.02%	5.99%	5.97%	5.95%	5.93%	5.91%	5.82%	5.74%	5.67%	5.61%
WHOLESALE TRADE	5.79%	5.14%	4.95%	4.93%	4.90%	4.88%	4.85%	4.83%	4.81%	4.79%	4.69%	4.61%	4.54%	4.47%
RETAIL TRADE	15.74%	15.75%	15.98%	15.88%	15.78%	15.69%	15.60%	15.52%	15.43%	15.36%	14.99%	14.69%	14.43%	14.20%
FINANCE, INS. & REAL ESTATE	7.90%	8.02%	8.41%	8.36%	8.30%	8.25%	8.20%	8.15%	8.11%	8.06%	7.86%	7.68%	7.53%	7.40%
SERVICES	30.09%	31.72%	32.99%	33.25%	33.49%	33.73%	33.96%	34.18%	34.39%	34.59%	35.51%	36.30%	36.98%	37.57%
FEDERAL CIVILIAN GOVT	1.26%	1.05%	0.99%	0.97%	0.96%	0.94%	0.93%	0.91%	0.90%	0.89%	0.83%	0.78%	0.73%	0.69%
FEDERAL MILITARY GOVT	0.71%	0.48%	0.49%	0.48%	0.47%	0.46%	0.45%	0.44%	0.43%	0.43%	0.39%	0.36%	0.33%	0.31%
STATE AND LOCAL GOVT	9.96%	10.10%	10.53%	10.58%	10.63%	10.67%	10.71%	10.76%	10.80%	10.84%	11.02%	11.18%	11.32%	11.43%
TOTAL EARNINGS (MILLIONS 1996 \$)	80,160.94	137,122.30	142,073.44	145,544.54	149,249.32	154,182.98	157,992.23	161,814.77	165,710.53	169,680.92	190,707.52	213,855.46	239,367.52	267,521.65
FARM EARNINGS	0.10%	0.07%	0.09%	0.07%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.09%	0.09%
AGRICULTURAL SERVICES, OTHER	0.40%	0.43%	0.39%	0.39%	0.39%	0.39%	0.38%	0.38%	0.38%	0.38%	0.38%	0.37%	0.37%	0.37%
MINING	8.36%	9.19%	8.85%	8.25%	8.19%	8.14%	8.08%	8.03%	7.97%	7.92%	7.64%	7.38%	7.08%	6.80%
CONSTRUCTION	8.04%	7.39%	7.55%	7.80%	7.78%	7.76%	7.73%	7.70%	7.67%	7.64%	7.51%	7.38%	7.26%	7.14%
MANUFACTURING	13.94%	12.65%	12.06%	12.03%	11.95%	11.88%	11.84%	11.80%	11.76%	11.72%	11.44%	11.07%	10.60%	10.05%
TRANSPORT, COMM. & PUBLIC UTIL	8.52%	11.17%	9.74%	9.75%	9.70%	9.66%	9.62%	9.57%	9.53%	9.49%	9.30%	9.15%	9.01%	8.89%
WHOLESALE TRADE	7.76%	6.70%	6.75%	6.76%	6.71%	6.67%	6.62%	6.58%	6.53%	6.49%	6.28%	6.08%	5.89%	5.71%
RETAIL TRADE	7.97%	7.14%	7.42%	7.38%	7.32%	7.26%	7.21%	7.16%	7.12%	7.07%	6.85%	6.66%	6.47%	6.30%
FINANCE, INS. & REAL ESTATE	6.00%	8.58%	8.53%	8.54%	8.55%	8.56%	8.56%	8.56%	8.56%	8.55%	8.55%	8.55%	8.54%	8.54%
SERVICES	27.55%	27.05%	27.96%	28.30%	28.58%	28.86%	29.12%	29.38%	29.64%	29.90%	31.24%	32.64%	34.08%	35.59%
FEDERAL CIVILIAN GOVT	2.11%	1.62%	1.65%	1.64%	1.62%	1.60%	1.57%	1.55%	1.53%	1.51%	1.40%	1.31%	1.22%	1.14%
FEDERAL MILITARY GOVT	0.31%	0.20%	0.34%	0.35%	0.35%	0.34%	0.34%	0.33%	0.33%	0.32%	0.30%	0.28%	0.27%	0.25%
STATE AND LOCAL GOVT	8.95%	7.80%	8.67%	8.74%	8.78%	8.82%	8.85%	8.88%	8.90%	8.92%	9.01%	9.07%	9.11%	9.13%
PERSONAL INCOME (MILLIONS 1996 \$)	94,506.37	156,414.50	161,050.64	165,653.03	169,957.41	175,534.53	179,817.54	184,140.03	188,550.84	193,051.87	216,999.79	243,614.11	273,297.21	306,525.84
INCOME PER CAPITA (1996 \$)	23,169.09	31,118.12	30,155.54	30,467.14	30,712.62	30,981.69	31,328.47	31,673.63	32,028.94	32,390.19	34,219.40	36,178.90	38,270.57	40,470.00
W&P WEALTH INDEX (U.S. = 100)	81.93	85.39	85.03	83.88	83.76	83.68	83.59	83.51	83.44	83.36	83.01	82.68	82.36	82.05
PERSONS PER HOUSEHOLD (PEOPLE)	2.77	2.83	2.80	2.80	2.79	2.79	2.78	2.78	2.77	2.77	2.77	2.78	2.81	2.85
MEAN HOUSEHOLD INCOME (1996 \$)	48,808.35	63,242.82	62,440.29	61,850.00	62,292.12	62,536.76	62,973.88	63,426.65	63,910.65	64,415.41	67,195.59	70,665.71	74,755.47	79,475.18
NUMBER OF HOUSEHOLDS (THOUSANDS)	1,474.97	1,778.31	1,905.39	1,943.34	1,981.51	2,032.65	2,062.50	2,091.98	2,120.91	2,149.65	2,291.76	2,421.82	2,541.98	2,653.25
LESS THAN \$10,000 (2000 \$)	12.08%	9.39%	9.19%	9.07%	8.94%	8.82%	8.72%	8.62%	8.46%	8.31%	7.56%	6.80%	6.11%	5.46%
\$10,000 TO \$19,999	13.54%	11.84%	11.61%	11.47%	11.31%	11.16%	11.03%	10.91%	10.72%	10.53%	9.60%	8.64%	7.78%	6.96%
\$20,000 TO \$29,999	13.94%	12.87%	12.66%	12.51%	12.35%	12.19%	12.06%	11.92%	11.71%	11.51%	10.49%	9.45%	8.51%	7.63%
\$30,000 TO \$49,999	18.41%	17.72%	17.62%	17.47%	17.30%	17.13%	16.97%	16.82%	16.56%	16.30%	14.97%	13.56%	12.27%	11.02%
\$45,000 TO \$59,999	14.15%	13.21%	13.42%	13.52%	13.66%	13.80%	13.90%	14.00%	14.16%	14.29%	14.56%	14.12%	13.10%	12.00%
\$60,000 TO \$74,999	9.66%	10.12%	10.26%	10.37%	10.49%	10.61%	10.72%	10.83%	11.00%	11.19%	12.16%	13.28%	14.31%	14.76%
\$75,000 TO \$99,999	7.70%	10.58%	10.74%	10.88%	11.03%	11.17%	11.29%	11.42%	11.62%	11.83%	12.98%	14.43%	15.98%	17.68%
\$100,000 OR MORE	10.51%	14.26%	14.50%	14.71%	14.92%	15.12%	15.30%	15.48%	15.76%	16.05%	17.68%	19.72%	21.94%	24.49%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 12 counties in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-21

Demographic and Employment Baseline Projections for Economic Impact Area LA-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	321.59	335.84	334.17	334.24	334.83	339.74	340.82	341.91	342.96	344.03	350.31	357.30	365.15	374.25
AGE UNDER 19 YEARS	32.35%	30.79%	29.95%	29.60%	29.39%	29.23%	29.16%	29.11%	28.96%	28.87%	28.69%	28.95%	28.81%	28.63%
AGE 20 TO 34 YEARS	26.04%	21.34%	21.31%	21.25%	21.22%	21.16%	21.08%	21.03%	21.06%	21.07%	20.77%	19.64%	19.45%	19.43%
AGE 35 TO 49 YEARS	18.85%	22.15%	21.68%	21.52%	21.31%	21.07%	20.79%	20.44%	20.07%	19.66%	18.34%	18.46%	18.46%	18.38%
AGE 50 TO 64 YEARS	12.61%	14.35%	15.37%	15.85%	16.25%	16.69%	17.09%	17.45%	17.85%	18.29%	19.22%	18.74%	17.44%	16.45%
AGE 65 YEARS AND OVER	10.15%	11.36%	11.69%	11.78%	11.83%	11.85%	11.89%	11.97%	12.06%	12.11%	12.98%	14.21%	15.83%	17.11%
MEDIAN AGE OF POPULATION (YEARS)	30.63	33.79	34.45	34.69	34.92	35.11	35.27	35.37	35.42	35.40	35.56	36.45	37.26	37.86
WHITE POPULATION	76.23%	75.24%	74.88%	74.90%	74.79%	74.64%	74.51%	74.38%	74.23%	74.10%	73.54%	73.03%	72.44%	71.75%
BLACK POPULATION	20.58%	20.88%	21.03%	20.95%	21.02%	21.11%	21.19%	21.26%	21.34%	21.43%	21.75%	22.03%	22.41%	22.86%
NATIVE AMERICAN POPULATION	0.39%	0.66%	0.64%	0.65%	0.65%	0.66%	0.66%	0.67%	0.68%	0.68%	0.69%	0.70%	0.71%	0.71%
ASIAN AND PACIFIC ISLANDER POP	0.71%	0.85%	0.90%	0.91%	0.93%	0.95%	0.97%	0.99%	1.02%	1.04%	1.14%	1.23%	1.32%	1.43%
HISPANIC POPULATION	2.09%	2.36%	2.55%	2.59%	2.61%	2.64%	2.67%	2.70%	2.73%	2.74%	2.88%	3.01%	3.12%	3.24%
MALE POPULATION	50.09%	49.89%	50.12%	50.18%	50.18%	50.20%	50.20%	50.21%	50.21%	50.22%	50.23%	50.17%	50.16%	50.10%
TOTAL EMPLOYMENT (THOUSANDS)	146.25	170.33	170.71	172.93	175.16	179.08	181.26	183.44	185.63	187.84	198.94	210.23	221.75	233.49
FARM EMPLOYMENT	3.26%	2.49%	2.29%	2.25%	2.21%	2.14%	2.10%	2.07%	2.03%	2.00%	1.84%	1.70%	1.57%	1.46%
AGRICULTURAL SERVICES, OTHER	1.05%	1.36%	1.44%	1.45%	1.46%	1.43%	1.44%	1.45%	1.46%	1.46%	1.50%	1.53%	1.56%	1.59%
MINING	2.20%	1.23%	0.93%	0.92%	0.92%	0.91%	0.90%	0.90%	0.90%	0.90%	0.89%	0.87%	0.86%	0.85%
CONSTRUCTION	6.80%	9.05%	7.91%	7.93%	7.94%	7.98%	7.99%	8.00%	8.02%	8.03%	8.09%	8.13%	8.16%	8.18%
MANUFACTURING	10.84%	8.84%	7.33%	7.28%	7.22%	7.18%	7.12%	7.07%	7.02%	6.96%	6.72%	6.49%	6.28%	6.08%
TRANSPORT, COMM. & PUBLIC UTIL	5.38%	4.86%	4.81%	4.78%	4.74%	4.67%	4.64%	4.61%	4.57%	4.54%	4.40%	4.28%	4.17%	4.06%
WHOLESALE TRADE	3.16%	3.03%	2.99%	2.96%	2.94%	2.92%	2.90%	2.88%	2.86%	2.84%	2.75%	2.67%	2.60%	2.53%
RETAIL TRADE	15.27%	16.04%	17.93%	17.88%	17.84%	17.85%	17.80%	17.76%	17.72%	17.67%	17.47%	17.28%	17.10%	16.93%
FINANCE, INS. & REAL ESTATE	4.14%	4.58%	4.98%	4.98%	4.98%	4.99%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	4.98%
SERVICES	20.79%	25.77%	26.50%	26.74%	26.98%	27.27%	27.50%	27.73%	27.95%	28.17%	29.22%	30.19%	31.11%	31.97%
FEDERAL CIVILIAN GOVT	3.09%	2.57%	2.21%	2.18%	2.15%	2.11%	2.08%	2.05%	2.01%	1.98%	1.83%	1.70%	1.58%	1.47%
FEDERAL MILITARY GOVT	11.90%	5.96%	6.46%	6.38%	6.31%	6.24%	6.17%	6.10%	6.03%	5.96%	5.65%	5.37%	5.11%	4.87%
STATE AND LOCAL GOVT	12.12%	14.21%	14.23%	14.27%	14.31%	14.32%	14.36%	14.40%	14.43%	14.47%	14.64%	14.79%	14.92%	15.04%
TOTAL EARNINGS (MILLIONS 1996 \$)	3,991.94	4,777.57	5,296.74	5,513.77	5,609.80	5,769.25	5,868.41	5,967.72	6,068.83	6,171.81	6,716.06	7,313.71	7,971.34	8,696.78
FARM EARNINGS	0.59%	0.31%	0.22%	0.35%	0.35%	0.34%	0.34%	0.34%	0.33%	0.33%	0.31%	0.29%	0.27%	0.25%
AGRICULTURAL SERVICES, OTHER	0.53%	0.60%	0.46%	0.51%	0.51%	0.51%	0.51%	0.52%	0.52%	0.52%	0.54%	0.56%	0.57%	0.59%
MINING	3.30%	2.49%	1.66%	2.21%	2.19%	2.14%	2.12%	2.10%	2.08%	2.06%	1.97%	1.88%	1.79%	1.71%
CONSTRUCTION	6.99%	9.95%	8.14%	8.26%	8.27%	8.30%	8.30%	8.30%	8.30%	8.30%	8.29%	8.28%	8.27%	8.24%
MANUFACTURING	19.52%	18.39%	18.79%	18.73%	18.57%	18.48%	18.38%	18.29%	18.19%	18.09%	17.48%	16.72%	15.85%	14.87%
TRANSPORT, COMM. & PUBLIC UTIL	7.22%	6.80%	6.94%	6.74%	6.70%	6.61%	6.56%	6.52%	6.47%	6.43%	6.25%	6.10%	5.96%	5.85%
WHOLESALE TRADE	3.52%	3.44%	3.50%	3.46%	3.43%	3.40%	3.37%	3.34%	3.31%	3.29%	3.16%	3.05%	2.94%	2.84%
RETAIL TRADE	7.79%	8.02%	8.84%	8.62%	8.60%	8.59%	8.57%	8.56%	8.54%	8.52%	8.44%	8.36%	8.29%	8.21%
FINANCE, INS. & REAL ESTATE	2.82%	3.26%	3.07%	3.02%	3.05%	3.07%	3.09%	3.11%	3.13%	3.14%	3.23%	3.30%	3.36%	3.41%
SERVICES	16.82%	19.51%	20.68%	20.46%	20.72%	21.04%	21.29%	21.55%	21.81%	22.07%	23.48%	25.03%	26.70%	28.50%
FEDERAL CIVILIAN GOVT	4.76%	4.92%	4.40%	4.43%	4.40%	4.34%	4.29%	4.24%	4.19%	4.13%	3.88%	3.63%	3.40%	3.18%
FEDERAL MILITARY GOVT	15.40%	9.07%	10.14%	10.28%	10.22%	10.16%	10.10%	10.04%	9.99%	9.93%	9.62%	9.28%	8.91%	8.52%
STATE AND LOCAL GOVT	10.75%	13.25%	13.15%	12.93%	13.00%	13.02%	13.07%	13.10%	13.14%	13.18%	13.36%	13.53%	13.68%	13.82%
PERSONAL INCOME (MILLIONS 1996 \$)	5,274.63	6,466.44	7,150.67	7,348.35	7,462.54	7,658.37	7,778.24	7,899.57	8,023.38	8,149.72	8,821.23	9,565.41	10,391.76	11,311.42
INCOME PER CAPITA (1996 \$)	16,401.63	19,254.40	21,398.30	21,985.44	22,287.81	22,541.79	22,822.13	23,104.51	23,394.59	23,689.12	25,180.99	26,771.08	28,459.10	30,224.63
IW&P WEALTH INDEX (U.S. = 100)	69.60	65.98	70.46	71.07	71.32	71.45	71.56	71.66	71.76	71.86	72.29	72.63	72.88	73.04
PERSONS PER HOUSEHOLD (PEOPLE)	2.90	2.74	2.72	2.71	2.70	2.69	2.69	2.68	2.67	2.66	2.64	2.63	2.65	2.68
MEAN HOUSEHOLD INCOME (1996 \$)	42,255.83	46,835.00	50,833.50	51,801.67	52,484.33	52,879.50	53,422.50	53,973.33	54,545.17	55,130.83	58,235.17	61,870.83	66,015.00	70,676.83
NUMBER OF HOUSEHOLDS (THOUSANDS)	111.08	122.40	122.77	123.23	123.86	126.12	126.89	127.65	128.37	129.10	132.68	135.61	137.96	139.82
LESS THAN \$10,000 (2000 \$)	18.21%	13.74%	12.78%	12.47%	12.26%	12.08%	11.91%	11.74%	11.58%	11.41%	10.60%	9.49%	8.31%	7.08%
\$10,000 TO \$19,999	19.26%	16.79%	15.61%	15.23%	14.98%	14.75%	14.55%	14.34%	14.14%	13.94%	12.95%	11.61%	10.18%	8.68%
\$20,000 TO \$29,999	16.75%	14.90%	13.79%	13.42%	13.18%	12.97%	12.79%	12.61%	12.43%	12.25%	11.38%	10.21%	8.99%	7.66%
\$30,000 TO \$44,999	18.06%	19.05%	19.49%	19.49%	19.49%	19.47%	19.45%	19.42%	19.36%	19.29%	18.64%	17.15%	15.23%	12.97%
\$45,000 TO \$59,999	12.55%	13.22%	14.27%	14.67%	14.93%	15.15%	15.37%	15.59%	15.82%	16.06%	17.30%	18.91%	20.00%	19.68%
\$60,000 TO \$74,999	7.06%	8.44%	9.11%	9.36%	9.52%	9.66%	9.80%	9.94%	10.09%	10.24%	11.04%	12.36%	14.13%	16.64%
\$75,000 TO \$99,999	4.14%	7.75%	8.36%	8.60%	8.75%	8.89%	9.02%	9.14%	9.28%	9.41%	10.12%	11.35%	12.97%	15.29%
\$100,000 OR MORE	3.97%	6.11%	6.59%	6.77%	6.89%	7.01%	7.11%	7.20%	7.31%	7.41%	7.96%	8.92%	10.21%	12.01%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 12 parishes in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-22

## Demographic and Employment Baseline Projections for Economic Impact Area LA-2

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	496.88%	548.34%	555.40%	558.25%	562.44%	580.30%	583.19%	586.09%	588.93%	591.80%	607.67%	624.70%	643.20%	663.91%
AGE UNDER 19 YEARS	33.50%	31.90%	30.49%	30.00%	29.68%	29.36%	29.14%	28.96%	28.76%	28.59%	28.34%	28.54%	28.46%	28.23%
AGE 20 TO 34 YEARS	24.46%	20.22%	20.88%	21.06%	21.17%	21.26%	21.39%	21.54%	21.69%	21.82%	21.13%	19.34%	18.61%	18.53%
AGE 35 TO 49 YEARS	18.89%	22.59%	22.19%	21.96%	21.61%	21.27%	20.80%	20.28%	19.78%	19.29%	18.26%	19.17%	19.92%	19.50%
AGE 50 TO 64 YEARS	12.54%	13.94%	15.00%	15.49%	16.00%	16.56%	17.05%	17.54%	17.99%	18.47%	19.49%	18.74%	16.89%	16.22%
AGE 65 YEARS AND OVER	10.62%	11.34%	11.44%	11.48%	11.53%	11.55%	11.63%	11.69%	11.78%	11.84%	12.77%	14.21%	16.11%	17.51%
MEDIAN AGE OF POPULATION (YEARS)	30.65	33.77	34.22	34.43	34.57	34.73	34.81	34.85	34.87	34.88	35.51	36.86	37.81	38.40
WHITE POPULATION	71.84%	70.08%	69.54%	69.33%	69.20%	69.07%	68.94%	68.80%	68.65%	68.51%	67.81%	67.17%	66.52%	65.81%
BLACK POPULATION	26.00%	27.35%	27.62%	27.71%	27.80%	27.90%	27.98%	28.08%	28.18%	28.27%	28.75%	29.18%	29.63%	30.14%
NATIVE AMERICAN POPULATION	0.15%	0.25%	0.26%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.26%
ASIAN AND PACIFIC ISLANDER POP	0.73%	1.00%	1.10%	1.15%	1.17%	1.20%	1.23%	1.26%	1.29%	1.32%	1.47%	1.60%	1.75%	1.92%
HISPANIC POPULATION	1.28%	1.32%	1.47%	1.54%	1.55%	1.56%	1.58%	1.60%	1.62%	1.63%	1.70%	1.77%	1.83%	1.87%
MALE POPULATION	48.16%	48.48%	48.66%	48.70%	48.73%	48.77%	48.80%	48.82%	48.84%	48.86%	48.96%	49.02%	49.00%	48.92%
TOTAL EMPLOYMENT (THOUSANDS)	224.02	277.69	286.22	290.62	295.02	307.30	311.44	315.57	319.69	323.81	344.32	364.70	385.00	405.22
FARM EMPLOYMENT	3.61%	2.58%	2.25%	2.22%	2.18%	2.12%	2.09%	2.06%	2.03%	2.00%	1.85%	1.73%	1.62%	1.52%
AGRICULTURAL SERVICES, OTHER	1.13%	1.28%	1.44%	1.45%	1.46%	1.46%	1.46%	1.47%	1.48%	1.49%	1.52%	1.54%	1.57%	1.59%
MINING	9.11%	7.47%	6.90%	6.96%	7.02%	7.10%	7.15%	7.21%	7.27%	7.32%	7.56%	7.78%	7.97%	8.14%
CONSTRUCTION	4.63%	6.53%	6.11%	6.05%	6.00%	5.94%	5.89%	5.84%	5.79%	5.74%	5.52%	5.33%	5.16%	5.00%
MANUFACTURING	9.49%	7.78%	6.69%	6.69%	6.69%	6.68%	6.67%	6.67%	6.67%	6.67%	6.67%	6.66%	6.66%	6.66%
TRANSPORT, COMM. & PUBLIC UTIL	5.49%	5.21%	5.01%	5.00%	5.00%	5.00%	5.00%	5.00%	4.99%	4.99%	4.98%	4.97%	4.96%	4.96%
WHOLESALE TRADE	4.88%	4.61%	4.64%	4.63%	4.61%	4.60%	4.58%	4.57%	4.55%	4.53%	4.47%	4.40%	4.35%	4.30%
RETAIL TRADE	16.39%	17.74%	18.29%	18.24%	18.19%	18.16%	18.11%	18.06%	18.02%	17.98%	17.77%	17.59%	17.44%	17.30%
FINANCE, INS. & REAL ESTATE	4.76%	5.21%	5.44%	5.39%	5.33%	5.28%	5.23%	5.18%	5.13%	5.08%	4.86%	4.67%	4.50%	4.35%
SERVICES	25.86%	28.38%	30.62%	30.79%	30.96%	31.16%	31.31%	31.46%	31.61%	31.76%	32.41%	32.99%	33.50%	33.95%
FEDERAL CIVILIAN GOVT	0.77%	0.72%	0.61%	0.61%	0.60%	0.60%	0.59%	0.59%	0.58%	0.58%	0.56%	0.55%	0.53%	0.52%
FEDERAL MILITARY GOVT	1.35%	1.00%	0.99%	0.98%	0.96%	0.95%	0.93%	0.92%	0.91%	0.90%	0.85%	0.80%	0.76%	0.72%
STATE AND LOCAL GOVT	12.52%	11.47%	10.99%	10.99%	10.99%	10.96%	10.97%	10.97%	10.97%	10.97%	10.98%	10.99%	10.99%	11.00%
TOTAL EARNINGS (MILLIONS 1996 \$)	5,516.49	7,661.87	8,352.08	8,616.96	8,803.78	9,240.52	9,427.09	9,613.63	9,803.36	9,996.30	11,010.81	12,114.38	13,315.49	14,624.15
FARM EARNINGS	1.06%	1.03%	0.74%	0.82%	0.82%	0.82%	0.82%	0.82%	0.82%	0.82%	0.83%	0.83%	0.84%	0.84%
AGRICULTURAL SERVICES, OTHER	0.67%	0.59%	0.56%	0.53%	0.54%	0.54%	0.54%	0.54%	0.54%	0.55%	0.56%	0.57%	0.58%	0.59%
MINING	16.36%	16.09%	15.82%	16.71%	16.73%	16.76%	16.76%	16.76%	16.75%	16.75%	16.64%	16.45%	16.19%	15.88%
CONSTRUCTION	4.57%	6.43%	6.00%	6.03%	5.96%	5.89%	5.83%	5.76%	5.69%	5.63%	5.35%	5.10%	4.89%	4.70%
MANUFACTURING	11.16%	10.74%	10.10%	9.89%	9.88%	9.87%	9.90%	9.93%	9.96%	9.98%	10.01%	9.91%	9.70%	9.38%
TRANSPORT, COMM. & PUBLIC UTIL	7.38%	7.17%	6.69%	6.88%	6.87%	6.86%	6.85%	6.84%	6.83%	6.82%	6.77%	6.74%	6.71%	6.70%
WHOLESALE TRADE	5.99%	5.70%	5.65%	5.55%	5.52%	5.49%	5.46%	5.42%	5.39%	5.36%	5.20%	5.05%	4.92%	4.79%
RETAIL TRADE	9.62%	9.92%	10.53%	10.37%	10.30%	10.23%	10.18%	10.13%	10.07%	10.02%	9.79%	9.57%	9.37%	9.19%
FINANCE, INS. & REAL ESTATE	3.38%	4.15%	4.08%	4.01%	4.00%	3.98%	3.96%	3.93%	3.91%	3.89%	3.78%	3.69%	3.61%	3.53%
SERVICES	25.04%	24.71%	25.97%	25.92%	26.11%	26.35%	26.53%	26.71%	26.90%	27.09%	28.11%	29.25%	30.48%	31.82%
FEDERAL CIVILIAN GOVT	1.53%	1.45%	1.29%	1.28%	1.27%	1.27%	1.26%	1.25%	1.25%	1.24%	1.20%	1.16%	1.13%	1.09%
FEDERAL MILITARY GOVT	0.65%	0.53%	0.98%	0.51%	0.50%	0.50%	0.49%	0.49%	0.49%	0.48%	0.46%	0.44%	0.43%	0.41%
STATE AND LOCAL GOVT	12.59%	11.50%	11.60%	11.49%	11.49%	11.45%	11.44%	11.42%	11.40%	11.39%	11.31%	11.23%	11.16%	11.10%
PERSONAL INCOME (MILLIONS 1996 \$)	7,879.26	10,950.32	11,782.45	12,087.79	12,321.09	12,858.54	13,083.04	13,310.07	13,541.45	13,777.36	15,027.56	16,405.99	17,927.96	19,611.90
INCOME PER CAPITA (1996 \$)	15,857.52	19,969.80	21,214.19	21,652.90	21,906.65	22,158.58	22,433.58	22,709.90	22,993.23	23,280.60	24,729.97	26,262.06	27,873.11	29,539.86
W&P WEALTH INDEX (U.S. = 100)	67.30	67.64	71.85	72.24	72.20	72.25	72.28	72.32	72.35	72.38	72.52	72.60	72.64	72.62
PERSONS PER HOUSEHOLD (PEOPLE)	2.84	2.72	2.70	2.69	2.68	2.67	2.67	2.66	2.65	2.65	2.62	2.62	2.63	2.66
MEAN HOUSEHOLD INCOME (1996 \$)	41,215.57	48,684.43	51,867.43	52,716.14	53,168.43	53,512.71	54,010.86	54,521.86	55,057.29	55,607.43	58,550.14	62,056.86	66,090.43	70,687.57
NUMBER OF HOUSEHOLDS (THOUSANDS)	174.79	201.47	205.72	207.45	209.65	217.04	218.74	220.40	222.01	223.61	231.50	238.29	244.17	249.23
LESS THAN \$10,000 (2000 \$)	23.20%	18.15%	17.10%	16.75%	16.52%	16.25%	16.02%	15.78%	15.55%	15.32%	14.19%	12.90%	11.42%	10.00%
\$10,000 TO \$19,999	19.96%	17.27%	16.31%	15.97%	15.74%	15.52%	15.30%	15.09%	14.88%	14.67%	13.63%	12.41%	11.00%	9.63%
\$20,000 TO \$29,999	15.03%	14.23%	13.72%	13.46%	13.32%	13.18%	13.05%	12.90%	12.76%	12.60%	11.78%	10.74%	9.51%	8.33%
\$30,000 TO \$44,999	16.95%	17.39%	17.98%	18.11%	18.20%	18.28%	18.35%	18.42%	18.48%	18.52%	18.56%	18.04%	16.73%	15.09%
\$45,000 TO \$59,999	11.30%	12.34%	13.07%	13.37%	13.56%	13.75%	13.94%	14.13%	14.33%	14.53%	15.63%	17.00%	18.43%	18.92%
\$60,000 TO \$74,999	5.69%	7.97%	8.44%	8.64%	8.76%	8.89%	9.01%	9.14%	9.27%	9.40%	10.11%	11.14%	12.66%	14.60%
\$75,000 TO \$99,999	3.61%	6.51%	6.88%	7.05%	7.15%	7.26%	7.36%	7.47%	7.57%	7.68%	8.27%	9.11%	10.37%	11.97%
\$100,000 OR MORE	4.26%	6.15%	6.50%	6.66%	6.76%	6.87%	6.97%	7.07%	7.17%	7.28%	7.84%	8.66%	9.89%	11.46%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 7 parishes in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.



Table 3-23

Demographic and Employment Baseline Projections for Economic Impact Area LA-3

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	910.13%	1009.62%	1028.56%	1037.30%	1045.93%	1149.95%	1156.01%	1162.08%	1168.03%	1174.01%	1206.74%	1241.59%	1279.24%	1321.31%
AGE UNDER 19 YEARS	32.83%	31.32%	29.71%	29.25%	29.01%	28.77%	28.63%	28.56%	28.43%	28.32%	28.09%	28.44%	28.40%	28.26%
AGE 20 TO 34 YEARS	25.91%	22.07%	22.76%	22.86%	22.85%	22.81%	22.81%	22.77%	22.75%	22.69%	21.51%	20.04%	19.62%	19.61%
AGE 35 TO 49 YEARS	20.25%	22.54%	22.00%	21.83%	21.54%	21.19%	20.87%	20.50%	20.21%	19.90%	19.51%	19.80%	19.92%	19.15%
AGE 50 TO 64 YEARS	11.77%	14.14%	15.44%	15.93%	16.42%	16.95%	17.31%	17.66%	17.96%	18.33%	18.80%	18.07%	16.89%	16.81%
AGE 65 YEARS AND OVER	9.24%	9.92%	10.09%	10.13%	10.18%	10.27%	10.38%	10.51%	10.64%	10.76%	12.09%	13.64%	15.18%	16.16%
MEDIAN AGE OF POPULATION (YEARS)	30.09	33.31	34.03	34.25	34.46	34.72	34.87	35.03	35.19	35.33	36.06	37.11	37.89	38.32
WHITE POPULATION	69.51%	66.94%	66.17%	65.87%	65.59%	63.26%	63.08%	62.89%	62.70%	62.51%	61.63%	60.74%	59.80%	58.69%
BLACK POPULATION	27.19%	29.13%	29.54%	29.71%	29.93%	32.24%	32.35%	32.46%	32.58%	32.70%	33.24%	33.81%	34.44%	35.24%
NATIVE AMERICAN POPULATION	0.95%	1.03%	1.04%	1.05%	1.05%	0.93%	0.94%	0.95%	0.96%	0.97%	1.03%	1.08%	1.14%	1.20%
ASIAN AND PACIFIC ISLANDER POP	0.91%	1.23%	1.30%	1.33%	1.36%	1.43%	1.46%	1.49%	1.52%	1.54%	1.67%	1.79%	1.91%	2.03%
HISPANIC POPULATION	1.45%	1.67%	1.95%	2.04%	2.08%	2.14%	2.17%	2.21%	2.24%	2.27%	2.43%	2.58%	2.71%	2.84%
MALE POPULATION	48.43%	48.55%	48.65%	48.67%	48.68%	48.63%	48.66%	48.68%	48.70%	48.73%	48.83%	48.88%	48.89%	48.91%
TOTAL EMPLOYMENT (THOUSANDS)	445.22	575.08	589.84	598.32	606.81	668.71	675.32	681.90	688.47	695.02	727.31	759.12	790.49	821.58
FARM EMPLOYMENT	1.39%	0.95%	0.82%	0.80%	0.78%	0.77%	0.76%	0.74%	0.72%	0.71%	0.64%	0.58%	0.52%	0.47%
AGRICULTURAL SERVICES, OTHER	1.26%	1.51%	1.80%	1.81%	1.82%	1.82%	1.82%	1.83%	1.84%	1.85%	1.89%	1.93%	1.96%	1.98%
MINING	2.49%	2.00%	1.72%	1.72%	1.72%	1.70%	1.70%	1.71%	1.71%	1.71%	1.73%	1.74%	1.75%	1.76%
CONSTRUCTION	9.06%	9.74%	9.22%	9.19%	9.16%	9.11%	9.08%	9.05%	9.03%	9.00%	8.89%	8.79%	8.71%	8.63%
MANUFACTURING	9.42%	7.87%	7.21%	7.14%	7.07%	6.97%	6.90%	6.84%	6.77%	6.71%	6.43%	6.17%	5.95%	5.74%
TRANSPORT, COMM. & PUBLIC UTIL	5.81%	6.05%	6.29%	6.29%	6.24%	6.24%	6.25%	6.25%	6.25%	6.25%	6.25%	6.26%	6.26%	6.26%
WHOLESALE TRADE	4.40%	4.37%	4.22%	4.17%	4.13%	4.10%	4.06%	4.02%	3.98%	3.95%	3.78%	3.63%	3.49%	3.37%
RETAIL TRADE	16.49%	17.32%	17.13%	17.06%	16.99%	16.95%	16.89%	16.82%	16.76%	16.70%	16.42%	16.17%	15.95%	15.75%
FINANCE, INS. & REAL ESTATE	5.91%	6.05%	6.33%	6.30%	6.27%	6.24%	6.21%	6.18%	6.15%	6.12%	5.99%	5.88%	5.78%	5.69%
SERVICES	24.27%	26.48%	27.80%	28.10%	28.39%	28.70%	28.98%	29.25%	29.51%	29.76%	30.94%	31.98%	32.91%	33.74%
FEDERAL CIVILIAN GOVT	0.91%	0.72%	0.58%	0.57%	0.57%	0.56%	0.55%	0.55%	0.54%	0.53%	0.50%	0.48%	0.46%	0.44%
FEDERAL MILITARY GOVT	1.28%	0.92%	0.94%	0.92%	0.91%	0.90%	0.89%	0.87%	0.86%	0.85%	0.80%	0.75%	0.71%	0.67%
STATE AND LOCAL GOVT	17.30%	16.02%	15.94%	15.92%	15.90%	15.94%	15.91%	15.89%	15.87%	15.84%	15.74%	15.64%	15.56%	15.48%
TOTAL EARNINGS (MILLIONS 1996 \$)	12,197.17	16,892.28	18,553.98	18,900.63	19,263.84	21,324.72	21,653.61	21,980.36	22,313.50	22,652.85	24,444.47	26,410.24	28,569.74	30,947.11
FARM EARNINGS	0.40	0.38	0.29	0.26	0.26	0.27	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.25
AGRICULTURAL SERVICES, OTHER	0.52	0.61	0.55	0.56	0.57	0.57	0.58	0.58	0.58	0.59	0.61	0.63	0.64	0.66
MINING	4.12	3.83	3.44	3.85	3.83	3.75	3.74	3.72	3.71	3.70	3.62	3.54	3.44	3.34
CONSTRUCTION	10.78	11.49	10.69	11.02	10.98	10.92	10.88	10.83	10.79	10.74	10.53	10.34	10.17	10.00
MANUFACTURING	17.47	14.68	15.29	14.87	14.69	14.47	14.35	14.24	14.12	14.00	13.34	12.60	11.80	10.94
TRANSPORT, COMM. & PUBLIC UTIL	7.56	8.41	8.39	8.23	8.24	8.19	8.19	8.20	8.21	8.24	8.26	8.29	8.29	8.31
WHOLESALE TRADE	5.45	5.61	5.60	5.49	5.42	5.38	5.32	5.26	5.20	5.15	4.88	4.64	4.41	4.20
RETAIL TRADE	8.97	9.34	9.48	9.44	9.38	9.36	9.32	9.27	9.23	9.18	8.97	8.77	8.58	8.39
FINANCE, INS. & REAL ESTATE	4.37	5.36	5.01	5.00	5.01	5.04	5.05	5.06	5.06	5.07	5.10	5.12	5.13	5.14
SERVICES	21.86	22.19	22.88	23.21	23.54	23.92	24.23	24.55	24.86	25.17	26.78	28.42	30.12	31.86
FEDERAL CIVILIAN GOVT	1.68	1.35	1.16	1.15	1.14	1.14	1.12	1.11	1.10	1.09	1.03	0.97	0.92	0.87
FEDERAL MILITARY GOVT	0.61	0.50	0.90	0.52	0.52	0.51	0.51	0.51	0.50	0.50	0.48	0.47	0.45	0.43
STATE AND LOCAL GOVT	16.20	16.24	16.34	16.41	16.40	16.48	16.45	16.41	16.37	16.34	16.16	15.98	15.80	15.62
PERSONAL INCOME (MILLIONS 1996 \$)	16,048.92	22,076.61	24,064.70	24,536.13	24,997.03	27,663.56	28,071.43	28,482.87	28,903.51	29,333.17	31,621.75	34,170.34	37,013.41	40,192.19
INCOME PER CAPITA (1996 \$)	17,633.65	21,866.21	23,396.56	23,653.75	23,899.38	24,056.37	24,282.95	24,510.21	24,745.50	24,985.54	26,204.28	27,521.41	28,933.81	30,418.56
W&P WEALTH INDEX (U.S. = 100)	72.49	74.09	79.12	78.14	78.05	77.98	77.91	77.84	77.78	77.72	77.43	77.14	76.85	76.56
PERSONS PER HOUSEHOLD (PEOPLE)	2.88	2.75	2.72	2.71	2.70	2.69	2.68	2.67	2.66	2.65	2.62	2.60	2.60	2.62
MEAN HOUSEHOLD INCOME (1996 \$)	46,555.00	55,713.90	60,103.20	59,584.00	59,945.10	60,125.20	60,487.10	60,869.00	61,275.30	61,696.80	64,030.50	66,952.90	70,386.20	74,328.30
NUMBER OF HOUSEHOLDS (THOUSANDS)	316.54	367.49	377.85	382.61	387.30	427.73	431.63	435.45	439.18	442.88	461.19	477.36	491.91	505.15
LESS THAN \$10,000 (2000 \$)	18.09%	14.00%	13.18%	12.97%	12.73%	12.60%	12.43%	12.26%	12.09%	11.93%	11.14%	10.34%	9.42%	8.44%
\$10,000 TO \$19,999	17.08%	14.92%	14.08%	13.86%	13.61%	13.44%	13.26%	13.09%	12.92%	12.74%	11.93%	11.08%	10.10%	9.05%
\$20,000 TO \$29,999	14.75%	13.57%	12.85%	12.66%	12.43%	12.28%	12.12%	11.96%	11.81%	11.65%	10.92%	10.16%	9.28%	8.31%
\$30,000 TO \$44,999	18.12%	17.78%	17.89%	17.81%	17.75%	17.69%	17.62%	17.54%	17.45%	17.33%	16.61%	15.67%	14.42%	12.96%
\$45,000 TO \$59,999	12.97%	13.03%	13.82%	14.02%	14.27%	14.43%	14.62%	14.81%	15.00%	15.19%	16.12%	16.95%	17.43%	17.17%
\$60,000 TO \$74,999	7.86%	9.80%	10.40%	10.58%	10.78%	10.91%	11.06%	11.21%	11.36%	11.52%	12.33%	13.29%	14.60%	16.32%
\$75,000 TO \$99,999	5.53%	8.82%	9.32%	9.49%	9.67%	9.77%	9.91%	10.04%	10.17%	10.31%	11.02%	11.87%	13.05%	14.64%
\$100,000 OR MORE	5.59%	8.07%	8.47%	8.61%	8.76%	8.87%	8.98%	9.09%	9.21%	9.33%	9.93%	10.65%	11.71%	13.10%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 10 parishes in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-24

## Demographic and Employment Baseline Projections for Economic Impact Area LA-4

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	1,328.17	1,580.84	1,380.29	1,383.15	1,385.14	1,054.72	1,077.29	1,099.87	1,122.30	1,144.78	1,261.03	1,380.13	1,502.83	1,631.03
AGE UNDER 19 YEARS	30.62%	29.63%	28.71%	28.34%	28.14%	27.85%	27.69%	27.56%	27.45%	27.34%	27.13%	27.46%	27.42%	27.39%
AGE 20 TO 34 YEARS	24.73%	20.54%	20.36%	20.38%	20.37%	20.24%	20.23%	20.24%	20.31%	20.37%	20.01%	18.64%	18.16%	18.12%
AGE 35 TO 49 YEARS	20.96%	23.35%	22.70%	22.44%	22.12%	21.87%	21.52%	21.11%	20.66%	20.20%	18.92%	19.13%	19.31%	19.15%
AGE 50 TO 64 YEARS	12.63%	15.00%	16.68%	17.30%	17.87%	18.61%	19.05%	19.45%	19.85%	20.24%	20.57%	19.52%	18.03%	17.23%
AGE 65 YEARS AND OVER	11.06%	11.49%	11.54%	11.54%	11.51%	11.43%	11.52%	11.63%	11.74%	11.86%	13.36%	15.26%	17.09%	18.10%
MEDIAN AGE OF POPULATION (YEARS)	31.35	34.71	35.38	35.59	35.76	35.96	36.05	36.11	36.14	36.15	36.50	37.43	38.24	38.64
WHITE POPULATION	59.70%	55.62%	54.76%	54.52%	54.26%	54.54%	54.25%	53.95%	53.66%	53.37%	52.04%	50.87%	49.72%	48.49%
BLACK POPULATION	34.31%	37.50%	37.93%	38.07%	38.23%	37.58%	37.80%	38.05%	38.29%	38.53%	39.65%	40.64%	41.65%	42.74%
NATIVE AMERICAN POPULATION	0.29%	0.37%	0.37%	0.38%	0.38%	0.33%	0.34%	0.34%	0.34%	0.35%	0.36%	0.36%	0.37%	0.38%
ASIAN AND PACIFIC ISLANDER POP	1.58%	2.20%	2.31%	2.34%	2.40%	2.58%	2.62%	2.67%	2.72%	2.76%	2.97%	3.14%	3.30%	3.47%
HISPANIC POPULATION	4.11%	4.31%	4.63%	4.70%	4.73%	4.98%	4.98%	4.99%	4.99%	4.99%	4.98%	4.98%	4.96%	4.92%
MALE POPULATION	47.68%	47.88%	47.99%	48.02%	48.04%	48.10%	48.10%	48.11%	48.13%	48.14%	48.20%	48.22%	48.19%	48.14%
TOTAL EMPLOYMENT (THOUSANDS)	701.68	792.64	800.07	810.53	820.99	591.35	610.34	629.42	648.58	667.82	765.82	866.01	968.13	1,071.88
FARM EMPLOYMENT (Percent)	0.44%	0.36%	0.32%	0.31%	0.31%	0.47%	0.45%	0.43%	0.41%	0.40%	0.33%	0.28%	0.24%	0.20%
AGRICULTURAL SERVICES, OTHER MINING	0.82%	1.11%	1.30%	1.31%	1.32%	1.37%	1.38%	1.39%	1.39%	1.39%	1.42%	1.46%	1.49%	1.52%
CONSTRUCTION	2.98%	1.75%	1.47%	1.46%	1.44%	1.16%	1.16%	1.16%	1.16%	1.16%	1.17%	1.17%	1.18%	1.18%
MANUFACTURING	4.97%	5.73%	5.57%	5.52%	5.47%	6.15%	6.05%	5.95%	5.86%	5.78%	5.40%	5.09%	4.83%	4.61%
TRANSPORT, COMM. & PUBLIC UTIL	7.45%	6.39%	5.87%	5.82%	5.76%	6.58%	6.47%	6.36%	6.25%	6.15%	5.71%	5.35%	5.03%	4.75%
WHOLESALE TRADE	7.38%	6.29%	5.78%	5.74%	5.71%	5.32%	5.31%	5.29%	5.27%	5.26%	5.19%	5.13%	5.07%	5.01%
RETAIL TRADE	5.23%	4.86%	4.41%	4.40%	4.38%	4.91%	4.86%	4.82%	4.77%	4.73%	4.54%	4.37%	4.22%	4.08%
FINANCE, INS. & REAL ESTATE SERVICES	17.10%	17.30%	17.50%	17.44%	17.37%	18.62%	18.49%	18.37%	18.24%	18.13%	17.58%	17.09%	16.64%	16.23%
FEDERAL CIVILIAN GOVT	6.88%	7.11%	7.57%	7.53%	7.50%	7.96%	7.90%	7.85%	7.80%	7.75%	7.51%	7.29%	7.07%	6.87%
FEDERAL MILITARY GOVT	30.87%	33.88%	34.91%	35.18%	35.45%	33.80%	34.21%	34.60%	34.98%	35.34%	36.94%	38.28%	39.44%	40.45%
STATE AND LOCAL GOVT	2.45%	2.13%	2.00%	1.98%	1.96%	1.24%	1.26%	1.28%	1.30%	1.32%	1.40%	1.47%	1.53%	1.58%
	1.84%	1.42%	1.47%	1.45%	1.43%	1.18%	1.17%	1.17%	1.16%	1.15%	1.12%	1.10%	1.08%	1.06%
	11.60%	11.66%	11.83%	11.86%	11.89%	11.25%	11.30%	11.34%	11.39%	11.44%	11.69%	11.94%	12.19%	12.44%
TOTAL EARNINGS (MILLIONS 1996 \$)	20,831.68	25,521.57	27,830.83	28,638.55	29,184.81	20,042.06	20,879.47	21,727.76	22,594.52	23,481.67	28,257.72	33,630.42	39,678.76	46,488.37
FARM EARNINGS (Percent)	0.08%	0.11%	0.07%	0.08%	0.08%	0.12%	0.12%	0.12%	0.11%	0.10%	0.09%	0.08%	0.07%	0.07%
AGRICULTURAL SERVICES, OTHER MINING	0.45%	0.53%	0.51%	0.51%	0.52%	0.55%	0.55%	0.55%	0.55%	0.56%	0.56%	0.57%	0.58%	0.59%
CONSTRUCTION	6.18%	4.64%	3.93%	4.08%	4.01%	2.99%	2.99%	2.99%	2.98%	2.98%	2.94%	2.88%	2.81%	2.72%
MANUFACTURING	5.33%	6.25%	6.04%	6.18%	6.12%	6.98%	6.84%	6.70%	6.57%	6.44%	5.90%	5.45%	5.08%	4.76%
TRANSPORT, COMM. & PUBLIC UTIL	11.39%	9.85%	9.98%	10.01%	9.92%	12.33%	12.10%	11.90%	11.70%	11.50%	10.52%	9.58%	8.67%	7.79%
WHOLESALE TRADE	9.83%	8.32%	7.63%	7.57%	7.52%	6.98%	6.96%	6.93%	6.91%	6.89%	6.77%	6.66%	6.55%	6.44%
RETAIL TRADE	6.45%	6.28%	5.72%	5.66%	5.62%	6.47%	6.38%	6.29%	6.21%	6.13%	5.75%	5.41%	5.10%	4.81%
FINANCE, INS. & REAL ESTATE SERVICES	9.38%	9.07%	9.13%	8.99%	8.94%	9.99%	9.89%	9.79%	9.70%	9.61%	9.17%	8.76%	8.38%	8.02%
FEDERAL CIVILIAN GOVT	5.84%	6.75%	6.73%	6.65%	6.66%	6.76%	6.77%	6.77%	6.77%	6.74%	6.68%	6.68%	6.59%	6.47%
FEDERAL MILITARY GOVT	28.72%	31.54%	32.77%	32.82%	33.16%	31.47%	31.98%	32.46%	32.94%	33.41%	35.66%	37.83%	39.94%	42.02%
STATE AND LOCAL GOVT	4.35%	4.30%	4.03%	3.98%	3.96%	2.64%	2.68%	2.72%	2.76%	2.79%	2.93%	3.03%	3.10%	3.13%
	1.46%	1.25%	1.64%	1.72%	1.70%	1.16%	1.18%	1.19%	1.21%	1.22%	1.28%	1.32%	1.34%	1.34%
	10.54%	11.11%	11.82%	11.74%	11.78%	11.54%	11.56%	11.57%	11.59%	11.60%	11.67%	11.74%	11.79%	11.84%
PERSONAL INCOME (MILLIONS 1996 \$)	26,586.80	33,451.57	36,278.34	36,951.74	37,489.37	28,700.60	29,649.58	30,613.24	31,595.95	32,599.91	37,972.69	43,971.62	50,687.83	58,223.42
INCOME PER CAPITA (1996 \$)	20,017.59	24,225.52	26,283.11	26,715.61	27,065.40	27,211.50	27,522.43	27,833.48	28,152.81	28,476.91	30,112.47	31,860.51	33,728.28	35,697.38
W&P WEALTH INDEX (U.S. = 100)	81.11	77.45	81.94	81.81	81.73	81.68	81.64	81.61	81.57	81.53	81.34	81.13	80.89	80.62
PERSONS PER HOUSEHOLD (PEOPLE)	2.73	2.64	2.62	2.61	2.60	2.62	2.60	2.59	2.58	2.57	2.52	2.50	2.49	2.49
MEAN HOUSEHOLD INCOME (1996 \$)	52,350.33	58,347.78	62,229.22	62,529.78	62,884.89	63,083.33	63,472.22	63,875.44	64,305.78	64,754.00	67,190.44	70,224.22	73,772.89	77,838.56
NUMBER OF HOUSEHOLDS (THOUSANDS)	487.05	522.69	526.66	529.90	532.82	403.00	413.66	424.32	434.92	445.55	499.60	552.48	604.19	654.50
LESS THAN \$10,000 (2000 \$)	18.30%	14.33%	13.18%	12.86%	12.64%	10.78%	10.69%	10.60%	10.51%	10.41%	9.95%	9.35%	8.58%	7.63%
\$10,000 TO \$19,999	16.73%	15.10%	14.00%	13.71%	13.50%	12.54%	12.41%	12.27%	12.13%	11.99%	11.34%	10.55%	9.61%	8.51%
\$20,000 TO \$29,999	14.72%	14.16%	13.26%	13.02%	12.85%	12.46%	12.31%	12.16%	12.00%	11.85%	11.14%	10.31%	9.36%	8.26%
\$30,000 TO \$44,999	17.90%	17.53%	17.79%	17.85%	17.82%	17.38%	17.30%	17.22%	17.13%	17.02%	16.51%	15.71%	14.58%	12.96%
\$45,000 TO \$59,999	12.65%	12.46%	13.34%	13.57%	13.74%	14.35%	14.48%	14.62%	14.76%	14.91%	15.49%	15.78%	15.96%	15.73%
\$60,000 TO \$74,999	7.73%	9.03%	9.71%	9.89%	10.04%	10.93%	11.04%	11.15%	11.27%	11.40%	12.01%	12.92%	14.06%	15.52%
\$75,000 TO \$99,999	5.45%	8.30%	8.94%	9.12%	9.27%	10.36%	10.46%	10.56%	10.66%	10.77%	11.30%	12.15%	13.32%	15.01%
\$100,000 OR MORE	6.52%	9.09%	9.78%	9.98%	10.14%	11.20%	11.31%	11.42%	11.54%	11.65%	12.26%	13.22%	14.52%	16.39%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 9 parishes in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-25

Demographic and Employment Baseline Projections for Economic Impact Area MS-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	389.02	459.82	467.30	473.61	478.42	475.94	481.50	487.07	492.57	498.09	526.98	556.84	588.00	621.26
AGE UNDER 19 YEARS	31.48%	29.70%	28.65%	28.30%	28.10%	27.84%	27.67%	27.55%	27.41%	27.26%	26.91%	27.18%	27.19%	27.10%
AGE 20 TO 34 YEARS	24.06%	20.71%	20.56%	20.51%	20.42%	20.36%	20.31%	20.27%	20.33%	20.47%	20.23%	19.05%	18.58%	18.47%
AGE 35 TO 49 YEARS	19.90%	22.66%	22.39%	22.24%	22.03%	21.76%	21.49%	21.13%	20.74%	20.18%	18.68%	18.78%	19.03%	19.08%
AGE 50 TO 64 YEARS	13.74%	15.62%	16.64%	17.04%	17.38%	17.86%	18.22%	18.56%	18.86%	19.34%	20.08%	19.49%	18.04%	16.92%
AGE 65 YEARS AND OVER	10.82%	11.31%	11.76%	11.91%	12.06%	12.18%	12.31%	12.49%	12.66%	12.75%	14.09%	15.51%	17.16%	18.43%
MEDIAN AGE OF POPULATION (YEARS)	31.98	34.68	35.16	35.44	35.68	36.02	36.19	36.36	36.50	36.58	37.11	37.90	38.45	38.71
WHITE POPULATION	78.99%	77.03%	76.24%	76.03%	75.85%	75.10%	74.92%	74.75%	74.57%	74.39%	73.52%	72.68%	71.84%	70.96%
BLACK POPULATION	17.99%	18.55%	19.10%	19.16%	19.28%	19.94%	20.04%	20.14%	20.24%	20.35%	20.87%	21.37%	21.86%	22.39%
NATIVE AMERICAN POPULATION	0.27%	0.44%	0.46%	0.49%	0.48%	0.48%	0.48%	0.48%	0.48%	0.48%	0.47%	0.47%	0.46%	0.45%
ASIAN AND PACIFIC ISLANDER POP	1.45%	1.81%	1.88%	1.92%	1.96%	1.99%	2.03%	2.07%	2.10%	2.14%	2.31%	2.47%	2.62%	2.80%
HISPANIC POPULATION	1.31%	2.16%	2.32%	2.40%	2.43%	2.48%	2.52%	2.57%	2.61%	2.64%	2.84%	3.02%	3.21%	3.40%
MALE POPULATION	49.46%	49.76%	49.88%	49.88%	49.89%	49.87%	49.90%	49.91%	49.93%	49.94%	49.96%	49.98%	49.99%	49.99%
TOTAL EMPLOYMENT (THOUSANDS)	177.51	244.55	243.45	247.48	251.51	248.27	252.58	256.89	261.20	265.51	287.15	308.92	330.79	352.74
FARM EMPLOYMENT	1.62%	1.44%	1.43%	1.41%	1.38%	1.46%	1.43%	1.40%	1.36%	1.34%	1.20%	1.08%	0.98%	0.89%
AGRICULTURAL SERVICES, OTHER	1.27%	1.39%	1.48%	1.49%	1.50%	1.51%	1.51%	1.52%	1.52%	1.52%	1.54%	1.55%	1.56%	1.56%
MINING	0.23%	0.12%	0.11%	0.11%	0.11%	0.12%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	0.10%	0.10%
CONSTRUCTION	4.79%	7.40%	6.66%	6.65%	6.64%	6.64%	6.63%	6.61%	6.60%	6.59%	6.52%	6.46%	6.40%	6.35%
MANUFACTURING	17.96%	11.31%	9.75%	9.66%	9.57%	9.42%	9.34%	9.26%	9.18%	9.11%	8.77%	8.48%	8.22%	8.00%
TRANSPORT, COMM. & PUBLIC UTIL	4.20%	4.00%	4.20%	4.18%	4.16%	4.18%	4.17%	4.15%	4.13%	4.12%	4.05%	3.98%	3.93%	3.88%
WHOLESALE TRADE	2.24%	2.01%	1.94%	1.93%	1.91%	1.92%	1.91%	1.90%	1.89%	1.88%	1.83%	1.80%	1.77%	1.74%
RETAIL TRADE	16.82%	17.23%	17.86%	17.82%	17.77%	17.85%	17.81%	17.76%	17.72%	17.68%	17.50%	17.35%	17.23%	17.12%
FINANCE, INS. & REAL ESTATE	4.28%	4.77%	5.18%	5.17%	5.15%	5.15%	5.13%	5.12%	5.10%	5.09%	5.02%	4.96%	4.90%	4.85%
SERVICES	19.70%	28.44%	28.41%	28.74%	29.05%	29.06%	29.38%	29.68%	29.98%	30.27%	31.59%	32.73%	33.73%	34.62%
FEDERAL CIVILIAN GOVT	5.53%	3.73%	3.64%	3.58%	3.53%	3.40%	3.35%	3.31%	3.27%	3.23%	3.04%	2.88%	2.73%	2.60%
FEDERAL MILITARY GOVT	9.08%	6.64%	7.28%	7.17%	7.06%	6.92%	6.83%	6.73%	6.64%	6.54%	6.13%	5.76%	5.44%	5.15%
STATE AND LOCAL GOVT	12.28%	11.52%	12.05%	12.11%	12.16%	12.36%	12.41%	12.45%	12.49%	12.53%	12.71%	12.87%	13.02%	13.14%
TOTAL EARNINGS (MILLIONS 1996 \$)	4,535.88	7,040.93	7,364.91	7,533.37	7,700.43	7,593.12	7,775.11	7,957.71	8,143.57	8,332.79	9,332.11	10,426.41	11,626.45	12,944.79
FARM EARNINGS	0.19%	0.08%	0.00%	0.17%	0.16%	0.18%	0.18%	0.17%	0.17%	0.16%	0.15%	0.14%	0.12%	0.11%
AGRICULTURAL SERVICES, OTHER	0.63%	0.57%	0.50%	0.51%	0.51%	0.52%	0.52%	0.52%	0.52%	0.52%	0.53%	0.54%	0.54%	0.55%
MINING	0.22%	0.16%	0.16%	0.14%	0.14%	0.14%	0.14%	0.14%	0.13%	0.13%	0.12%	0.11%	0.11%	0.10%
CONSTRUCTION	4.09%	7.59%	6.72%	6.76%	6.74%	6.73%	6.71%	6.68%	6.65%	6.62%	6.50%	6.38%	6.28%	6.19%
MANUFACTURING	24.56%	17.11%	15.91%	15.67%	15.53%	15.27%	15.18%	15.10%	15.02%	14.93%	14.42%	13.81%	13.10%	12.31%
TRANSPORT, COMM. & PUBLIC UTIL	5.45%	5.12%	5.51%	5.54%	5.52%	5.55%	5.53%	5.50%	5.48%	5.45%	5.34%	5.25%	5.17%	5.10%
WHOLESALE TRADE	2.30%	2.23%	2.27%	1.89%	1.87%	1.89%	1.87%	1.85%	1.84%	1.83%	1.77%	1.71%	1.66%	1.62%
RETAIL TRADE	8.74%	9.14%	9.07%	9.02%	8.98%	9.04%	9.01%	8.98%	8.95%	8.92%	8.79%	8.66%	8.54%	8.43%
FINANCE, INS. & REAL ESTATE	3.05%	3.32%	3.48%	3.48%	3.49%	3.53%	3.54%	3.54%	3.55%	3.55%	3.57%	3.58%	3.60%	3.60%
SERVICES	16.01%	25.52%	24.63%	24.97%	25.32%	25.47%	25.81%	26.15%	26.49%	26.83%	28.54%	30.30%	32.11%	33.96%
FEDERAL CIVILIAN GOVT	9.93%	7.69%	7.80%	7.74%	7.67%	7.42%	7.33%	7.25%	7.16%	7.08%	6.68%	6.31%	5.97%	5.64%
FEDERAL MILITARY GOVT	12.67%	9.39%	11.14%	11.20%	11.09%	10.99%	10.87%	10.77%	10.66%	10.55%	10.03%	9.51%	9.00%	8.50%
STATE AND LOCAL GOVT	12.14%	12.08%	12.82%	12.91%	12.98%	13.27%	13.31%	13.35%	13.38%	13.41%	13.56%	13.69%	13.80%	13.88%
PERSONAL INCOME (MILLIONS 1996 \$)	6,092.21	9,524.68	10,133.95	10,359.72	10,576.03	10,532.52	10,766.53	11,003.62	11,245.34	11,491.90	12,801.40	14,250.22	15,857.08	17,644.07
INCOME PER CAPITA (1996 \$)	15,660.29	20,714.06	21,686.27	21,873.95	22,105.97	22,130.03	22,360.31	22,591.59	22,829.78	23,071.93	24,292.23	25,591.31	26,967.69	28,400.56
W&P WEALTH INDEX (U.S. = 100)	63.93	67.39	70.08	69.02	68.82	68.72	68.63	68.53	68.43	68.34	67.88	67.45	67.03	66.62
PERSONS PER HOUSEHOLD (PEOPLE)	2.80	2.70	2.67	2.66	2.65	2.64	2.63	2.63	2.62	2.61	2.58	2.57	2.57	2.58
MEAN HOUSEHOLD INCOME (1996 \$)	38,951.14	49,159.57	51,015.43	50,358.57	50,608.00	50,766.43	51,079.14	51,399.86	51,744.43	52,102.29	54,081.14	56,585.43	59,549.71	62,979.00
NUMBER OF HOUSEHOLDS (THOUSANDS)	138.93	170.49	174.95	178.06	180.56	179.99	182.75	185.49	188.19	190.89	204.41	217.07	229.02	240.35
LESS THAN \$10,000 (2000 \$)	16.96%	11.89%	11.31%	11.11%	10.96%	10.87%	10.71%	10.55%	10.40%	10.24%	9.50%	8.61%	7.78%	6.89%
\$10,000 TO \$19,999	18.90%	14.52%	13.80%	13.56%	13.37%	13.28%	13.08%	12.89%	12.70%	12.51%	11.59%	10.48%	9.45%	8.35%
\$20,000 TO \$29,999	16.41%	15.05%	14.27%	14.02%	13.82%	13.64%	13.44%	13.24%	13.05%	12.86%	11.94%	10.81%	9.75%	8.63%
\$30,000 TO \$44,999	19.54%	20.51%	20.49%	20.44%	20.40%	20.31%	20.24%	20.15%	20.05%	19.92%	19.11%	17.58%	15.99%	14.16%
\$45,000 TO \$59,999	13.12%	14.42%	15.23%	15.50%	15.73%	15.94%	16.18%	16.42%	16.66%	16.92%	18.17%	19.63%	20.41%	20.36%
\$60,000 TO \$74,999	6.76%	9.43%	9.94%	10.13%	10.27%	10.39%	10.55%	10.70%	10.86%	11.02%	11.87%	13.13%	14.60%	16.58%
\$75,000 TO \$99,999	4.43%	7.83%	8.26%	8.41%	8.53%	8.58%	8.72%	8.85%	8.98%	9.12%	9.84%	10.92%	12.17%	13.85%
\$100,000 OR MORE	3.88%	6.36%	6.70%	6.83%	6.92%	6.98%	7.09%	7.19%	7.30%	7.41%	7.99%	8.85%	9.85%	11.19%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 7 counties in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-26

## Demographic and Employment Baseline Projections for Economic Impact Area AL-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
<b>TOTAL POPULATION (THOUSANDS)</b>	609.33	677.22	685.27	690.28	697.06	741.71	746.26	750.82	755.30	759.80	784.22	810.06	837.76	868.36
AGE UNDER 19 YEARS	31.12 %	29.55 %	28.62 %	28.25 %	28.03 %	27.78 %	27.58 %	27.43 %	27.29 %	27.14 %	26.75 %	26.96 %	26.99 %	26.94 %
AGE 20 TO 34 YEARS	22.69 %	19.33 %	19.52 %	19.64 %	19.60 %	19.61 %	19.64 %	19.69 %	19.74 %	19.87 %	19.69 %	18.39 %	17.79 %	17.60 %
AGE 35 TO 49 YEARS	19.91 %	22.25 %	21.69 %	21.46 %	21.22 %	20.93 %	20.61 %	20.21 %	19.80 %	19.31 %	18.10 %	18.58 %	18.97 %	19.03 %
AGE 50 TO 64 YEARS	13.53 %	15.81 %	16.82 %	17.23 %	17.68 %	18.16 %	18.57 %	18.92 %	19.22 %	19.58 %	20.00 %	19.12 %	17.58 %	16.70 %
AGE 65 YEARS AND OVER	12.75 %	13.07 %	13.35 %	13.42 %	13.47 %	13.52 %	13.60 %	13.75 %	13.94 %	14.10 %	15.47 %	16.95 %	18.67 %	19.74 %
<b>MEDIAN AGE OF POPULATION (YEARS)</b>	32.73	36.08	36.80	37.04	37.19	37.39	37.51	37.65	37.77	37.86	38.00	38.50	39.24	39.52
WHITE POPULATION	68.03%	66.74%	66.50%	66.50%	66.39%	66.27%	66.17%	66.05%	65.95%	65.83%	65.29%	64.75%	64.19%	63.55%
BLACK POPULATION	29.75%	30.00%	30.11%	30.05%	30.11%	30.17%	30.22%	30.28%	30.34%	30.41%	30.71%	31.02%	31.33%	31.72%
NATIVE AMERICAN POPULATION	0.81%	0.96%	0.94%	0.93%	0.93%	0.94%	0.94%	0.94%	0.94%	0.94%	0.95%	0.95%	0.96%	0.96%
ASIAN AND PACIFIC ISLANDER POP	0.62%	1.05%	1.07%	1.12%	1.14%	1.17%	1.20%	1.23%	1.25%	1.28%	1.41%	1.54%	1.68%	1.84%
HISPANIC POPULATION	0.79%	1.25%	1.38%	1.40%	1.43%	1.45%	1.47%	1.49%	1.51%	1.53%	1.63%	1.74%	1.84%	1.94%
MALE POPULATION	47.77%	48.18%	48.25%	48.26%	48.29%	48.32%	48.35%	48.37%	48.39%	48.41%	48.50%	48.57%	48.58%	48.56%
<b>TOTAL EMPLOYMENT (THOUSANDS)</b>	282.20	351.87	344.78	350.12	355.46	380.45	385.13	389.81	394.47	399.13	422.18	444.96	467.51	489.85
FARM EMPLOYMENT	2.41%	1.59%	1.56%	1.53%	1.50%	1.44%	1.41%	1.39%	1.37%	1.34%	1.23%	1.13%	1.05%	0.97%
AGRICULTURAL SERVICES, OTHER	1.23%	1.41%	1.61%	1.60%	1.59%	1.58%	1.58%	1.57%	1.57%	1.56%	1.54%	1.52%	1.50%	1.49%
MINING	0.59%	0.44%	0.34%	0.33%	0.33%	0.33%	0.32%	0.32%	0.32%	0.31%	0.30%	0.29%	0.27%	0.26%
CONSTRUCTION	6.78%	8.06%	7.41%	7.49%	7.57%	7.67%	7.74%	7.82%	7.88%	7.95%	8.26%	8.53%	8.77%	8.98%
MANUFACTURING	16.51%	11.98%	9.97%	9.86%	9.76%	9.57%	9.48%	9.39%	9.31%	9.23%	8.84%	8.51%	8.21%	7.95%
TRANSPORT, COMM. & PUBLIC UTIL	5.30%	6.06%	5.58%	5.58%	5.58%	5.57%	5.57%	5.57%	5.57%	5.57%	5.57%	5.57%	5.57%	5.58%
WHOLESALE TRADE	4.56%	4.43%	4.34%	4.32%	4.31%	4.33%	4.32%	4.31%	4.29%	4.28%	4.22%	4.16%	4.11%	4.07%
RETAIL TRADE	17.20%	17.68%	18.16%	18.14%	18.12%	18.04%	18.02%	18.00%	17.98%	17.96%	17.87%	17.80%	17.76%	17.72%
FINANCE, INS. & REAL ESTATE	5.54%	6.44%	6.91%	6.91%	6.91%	6.89%	6.89%	6.88%	6.88%	6.88%	6.87%	6.87%	6.88%	6.88%
SERVICES	23.94%	27.66%	29.24%	29.46%	29.68%	30.03%	30.23%	30.42%	30.61%	30.79%	31.61%	32.32%	32.95%	33.49%
FEDERAL CIVILIAN GOVT	1.30%	0.99%	0.91%	0.90%	0.89%	0.88%	0.87%	0.86%	0.84%	0.83%	0.78%	0.73%	0.69%	0.65%
FEDERAL MILITARY GOVT	2.23%	1.36%	1.36%	1.34%	1.32%	1.30%	1.29%	1.27%	1.25%	1.23%	1.16%	1.09%	1.03%	0.97%
STATE AND LOCAL GOVT	12.41%	11.91%	12.61%	12.53%	12.44%	12.36%	12.28%	12.21%	12.14%	12.07%	11.75%	11.47%	11.22%	10.99%
<b>TOTAL EARNINGS (MILLIONS 1996 \$)</b>	7,245.54	9,751.86	9,939.87	10,105.12	10,308.78	11,120.89	11,317.03	11,512.51	11,711.31	11,913.44	12,974.74	14,128.14	15,383.24	16,751.74
FARM EARNINGS	1.43%	0.84%	0.72%	0.64%	0.64%	0.62%	0.62%	0.62%	0.62%	0.62%	0.61%	0.60%	0.58%	0.57%
AGRICULTURAL SERVICES, OTHER	0.57%	0.76%	0.70%	0.70%	0.70%	0.69%	0.69%	0.69%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%
MINING	0.71%	0.89%	0.73%	0.75%	0.74%	0.72%	0.71%	0.69%	0.68%	0.67%	0.62%	0.58%	0.54%	0.50%
CONSTRUCTION	7.33%	8.55%	7.61%	7.97%	8.04%	8.13%	8.19%	8.24%	8.29%	8.34%	8.56%	8.73%	8.88%	8.99%
MANUFACTURING	24.20%	18.50%	16.38%	16.27%	16.10%	15.82%	15.71%	15.61%	15.51%	15.41%	14.81%	14.11%	13.32%	12.47%
TRANSPORT, COMM. & PUBLIC UTIL	7.35%	8.18%	7.82%	7.85%	7.84%	7.83%	7.82%	7.81%	7.80%	7.80%	7.76%	7.74%	7.72%	7.72%
WHOLESALE TRADE	5.50%	5.91%	6.31%	6.31%	6.28%	6.31%	6.28%	6.25%	6.22%	6.19%	6.04%	5.90%	5.77%	5.64%
RETAIL TRADE	10.15%	10.59%	10.88%	10.89%	10.85%	10.76%	10.73%	10.70%	10.68%	10.65%	10.53%	10.41%	10.31%	10.21%
FINANCE, INS. & REAL ESTATE	3.87%	5.65%	6.09%	6.14%	6.18%	6.21%	6.24%	6.27%	6.30%	6.33%	6.47%	6.60%	6.72%	6.84%
SERVICES	21.54%	23.36%	24.54%	24.88%	25.11%	25.50%	25.72%	25.93%	26.15%	26.38%	27.53%	28.76%	30.04%	31.39%
FEDERAL CIVILIAN GOVT	2.61%	2.18%	2.15%	2.14%	2.12%	2.12%	2.10%	2.07%	2.05%	2.02%	1.90%	1.79%	1.68%	1.58%
FEDERAL MILITARY GOVT	1.46%	1.00%	1.62%	1.02%	1.01%	1.01%	1.00%	0.99%	0.99%	0.98%	0.94%	0.90%	0.86%	0.82%
STATE AND LOCAL GOVT	13.29%	13.61%	14.46%	14.46%	14.39%	14.28%	14.20%	14.11%	14.02%	13.94%	13.55%	13.20%	12.88%	12.59%
<b>PERSONAL INCOME (MILLIONS 1996 \$)</b>	10,111.40	13,927.73	14,371.09	14,637.96	14,945.65	16,039.34	16,326.52	16,617.21	16,913.70	17,215.97	18,818.82	20,590.27	22,552.96	24,733.81
INCOME PER CAPITA (1996 \$)	16,594.34	20,566.12	20,971.52	21,205.83	21,440.86	21,624.87	21,877.67	22,131.99	22,393.29	22,658.50	23,996.95	25,418.30	26,920.71	28,483.36
W&P WEALTH INDEX (U.S. = 100)	69.27	68.32	69.85	69.25	69.20	69.17	69.15	69.13	69.12	69.11	69.02	68.92	68.78	68.62
PERSONS PER HOUSEHOLD (PEOPLE)	2.76	2.62	2.60	2.59	2.58	2.57	2.57	2.56	2.55	2.54	2.52	2.51	2.51	2.53
MEAN HOUSEHOLD INCOME (1996 \$)	41,889.13	47,825.00	48,273.50	48,067.75	48,444.63	48,690.25	49,080.75	49,492.25	49,927.00	50,370.75	52,769.63	55,647.38	58,952.38	62,691.75
NUMBER OF HOUSEHOLDS (THOUSANDS)	221.16	258.01	263.44	266.41	270.03	288.19	290.94	293.63	296.25	298.86	311.79	323.37	333.97	343.82
LESS THAN \$10,000 (2000 \$)	18.75%	14.69%	13.99%	13.76%	13.53%	13.31%	13.09%	12.88%	12.67%	12.46%	11.49%	10.42%	9.18%	7.94%
\$10,000 TO \$19,999	18.03%	15.91%	15.23%	15.02%	14.80%	14.59%	14.38%	14.17%	13.96%	13.75%	12.79%	11.69%	10.40%	9.04%
\$20,000 TO \$29,999	15.81%	14.12%	13.58%	13.42%	13.25%	13.08%	12.91%	12.73%	12.56%	12.39%	11.59%	10.66%	9.52%	8.30%
\$30,000 TO \$44,999	18.54%	18.51%	18.69%	18.72%	18.74%	18.74%	18.73%	18.70%	18.66%	18.60%	18.15%	17.12%	15.52%	13.67%
\$45,000 TO \$59,999	12.25%	13.58%	14.20%	14.39%	14.60%	14.82%	15.03%	15.26%	15.48%	15.71%	16.77%	18.09%	19.20%	19.08%
\$60,000 TO \$74,999	7.46%	8.74%	9.15%	9.28%	9.42%	9.56%	9.70%	9.85%	10.00%	10.15%	10.92%	11.95%	13.48%	15.59%
\$75,000 TO \$99,999	4.50%	7.63%	7.99%	8.11%	8.24%	8.37%	8.50%	8.63%	8.77%	8.90%	9.59%	10.51%	11.87%	13.76%
\$100,000 OR MORE	4.67%	6.83%	7.18%	7.30%	7.42%	7.53%	7.66%	7.78%	7.91%	8.04%	8.70%	9.56%	10.84%	12.62%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 8 counties in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-27

Demographic and Employment Baseline Projections for Economic Impact Area FL-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	665.78	797.21	832.50	845.69	858.08	883.12	900.43	917.72	934.88	952.03	1,040.01	1,129.62	1,221.79	1,318.38
AGE UNDER 19 YEARS	29.48%	27.37%	27.14%	26.91%	26.52%	26.16%	25.83%	25.58%	25.33%	25.08%	24.61%	24.87%	24.95%	25.07%
AGE 20 TO 34 YEARS	25.11%	20.05%	19.41%	19.31%	19.43%	19.57%	19.71%	19.87%	20.11%	20.34%	20.56%	19.20%	18.19%	17.97%
AGE 35 TO 49 YEARS	19.83%	23.48%	22.51%	22.20%	21.88%	21.52%	21.13%	20.60%	20.03%	19.42%	17.26%	17.77%	18.84%	19.33%
AGE 50 TO 64 YEARS	14.16%	16.10%	17.48%	18.06%	18.36%	18.67%	18.91%	19.17%	19.41%	19.80%	20.40%	19.36%	17.36%	15.64%
AGE 65 YEARS AND OVER	11.42%	12.99%	13.45%	13.52%	13.81%	14.08%	14.42%	14.77%	15.12%	15.36%	17.18%	18.81%	20.66%	21.98%
MEDIAN AGE OF POPULATION (YEARS)	34.24	38.36	39.21	39.47	39.77	40.03	40.26	40.50	40.69	40.85	41.13	41.12	41.57	42.02
WHITE POPULATION	82.15%	80.37%	79.85%	79.70%	79.52%	79.28%	79.08%	78.89%	78.70%	78.50%	77.56%	76.61%	75.62%	74.51%
BLACK POPULATION	13.23%	13.58%	13.75%	13.76%	13.83%	13.93%	14.01%	14.09%	14.17%	14.28%	14.68%	15.11%	15.58%	16.13%
NATIVE AMERICAN POPULATION	0.82%	0.88%	0.86%	0.85%	0.84%	0.83%	0.83%	0.82%	0.81%	0.80%	0.76%	0.73%	0.69%	0.65%
ASIAN AND PACIFIC ISLANDER POP	1.75%	2.25%	2.32%	2.36%	2.40%	2.45%	2.49%	2.53%	2.57%	2.60%	2.76%	2.88%	2.99%	3.11%
HISPANIC POPULATION	2.05%	2.91%	3.22%	3.33%	3.41%	3.50%	3.59%	3.67%	3.75%	3.83%	4.24%	4.67%	5.12%	5.60%
MALE POPULATION	49.37%	50.14%	50.14%	50.17%	50.21%	50.24%	50.29%	50.33%	50.37%	50.40%	50.59%	50.73%	50.88%	51.04%
TOTAL EMPLOYMENT (THOUSANDS)	338.22	435.92	449.86	461.76	473.65	488.53	500.29	512.06	523.82	535.58	594.28	652.91	711.49	770.03
FARM EMPLOYMENT	0.64%	0.56%	0.56%	0.54%	0.53%	0.51%	0.50%	0.49%	0.48%	0.46%	0.41%	0.37%	0.34%	0.31%
AGRICULTURAL SERVICES, OTHER	1.18%	1.25%	1.38%	1.36%	1.35%	1.34%	1.32%	1.31%	1.30%	1.29%	1.25%	1.21%	1.19%	1.16%
MINING	0.23%	0.16%	0.12%	0.12%	0.12%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	0.09%	0.08%	0.08%
CONSTRUCTION	5.92%	7.04%	6.20%	6.15%	6.11%	6.07%	6.02%	5.98%	5.95%	5.91%	5.75%	5.62%	5.51%	5.42%
MANUFACTURING	7.04%	4.11%	3.86%	3.76%	3.67%	3.59%	3.51%	3.43%	3.36%	3.29%	2.98%	2.72%	2.51%	2.33%
TRANSPORT, COMM. & PUBLIC UTIL	3.87%	3.77%	3.79%	3.76%	3.72%	3.69%	3.67%	3.64%	3.62%	3.59%	3.49%	3.40%	3.33%	3.27%
WHOLESALE TRADE	2.79%	2.99%	2.80%	2.80%	2.80%	2.80%	2.79%	2.79%	2.79%	2.79%	2.79%	2.78%	2.78%	2.77%
RETAIL TRADE	19.49%	18.79%	18.03%	17.80%	17.57%	17.35%	17.15%	16.95%	16.76%	16.58%	15.79%	15.15%	14.61%	14.15%
FINANCE, INS. & REAL ESTATE	5.76%	7.13%	7.38%	7.36%	7.34%	7.32%	7.30%	7.28%	7.26%	7.24%	7.17%	7.11%	7.05%	7.01%
SERVICES	25.48%	32.78%	34.41%	35.33%	36.20%	37.03%	37.81%	38.56%	39.28%	39.96%	42.97%	45.43%	47.48%	49.21%
FEDERAL CIVILIAN GOVT	6.66%	4.00%	3.66%	3.56%	3.48%	3.39%	3.31%	3.24%	3.16%	3.09%	2.79%	2.53%	2.33%	2.15%
FEDERAL MILITARY GOVT	10.46%	8.11%	8.57%	8.37%	8.18%	8.01%	7.83%	7.67%	7.51%	7.36%	6.71%	6.17%	5.73%	5.35%
STATE AND LOCAL GOVT	10.47%	9.31%	9.23%	9.08%	8.94%	8.80%	8.67%	8.55%	8.43%	8.32%	7.82%	7.41%	7.08%	6.79%
TOTAL EARNINGS (MILLIONS 1996 \$)	9,140.94	12,355.71	13,536.33	14,052.87	14,498.11	15,042.32	15,500.06	15,961.31	16,433.38	16,916.65	19,515.21	22,456.99	25,800.77	29,613.16
FARM EARNINGS	0.30%	0.20%	0.21%	0.18%	0.18%	0.18%	0.17%	0.17%	0.17%	0.17%	0.16%	0.15%	0.14%	0.13%
AGRICULTURAL SERVICES, OTHER	0.52%	0.64%	0.56%	0.57%	0.56%	0.56%	0.55%	0.55%	0.55%	0.54%	0.53%	0.52%	0.50%	0.49%
MINING	0.21%	0.20%	0.19%	0.15%	0.15%	0.15%	0.14%	0.14%	0.13%	0.13%	0.12%	0.10%	0.09%	0.08%
CONSTRUCTION	5.50%	6.39%	5.28%	5.39%	5.35%	5.31%	5.26%	5.22%	5.17%	5.13%	4.93%	4.74%	4.56%	4.38%
MANUFACTURING	9.89%	5.87%	5.65%	5.60%	5.48%	5.36%	5.26%	5.17%	5.08%	4.99%	4.53%	4.08%	3.64%	3.22%
TRANSPORT, COMM. & PUBLIC UTIL	4.88%	5.38%	5.45%	5.23%	5.19%	5.15%	5.11%	5.07%	5.04%	5.00%	4.84%	4.69%	4.55%	4.42%
WHOLESALE TRADE	2.98%	3.79%	3.48%	3.44%	3.43%	3.43%	3.43%	3.42%	3.42%	3.42%	3.38%	3.33%	3.26%	3.18%
RETAIL TRADE	10.15%	10.48%	10.31%	10.15%	10.00%	9.86%	9.73%	9.60%	9.48%	9.37%	8.82%	8.33%	7.89%	7.47%
FINANCE, INS. & REAL ESTATE	3.27%	5.55%	5.86%	5.82%	5.87%	5.91%	5.95%	5.98%	6.02%	6.05%	6.20%	6.33%	6.42%	6.50%
SERVICES	20.84%	27.30%	28.18%	29.02%	29.94%	30.83%	31.69%	32.52%	33.33%	34.12%	37.88%	41.34%	44.59%	47.65%
FEDERAL CIVILIAN GOVT	11.35%	7.87%	7.44%	7.14%	7.00%	6.85%	6.70%	6.55%	6.41%	6.27%	5.63%	5.06%	4.56%	4.12%
FEDERAL MILITARY GOVT	18.23%	15.23%	16.68%	16.76%	16.46%	16.18%	15.90%	15.64%	15.38%	15.13%	13.92%	12.80%	11.74%	10.75%
STATE AND LOCAL GOVT	11.89%	11.10%	10.73%	10.53%	10.39%	10.25%	10.10%	9.96%	9.82%	9.69%	9.08%	8.54%	8.06%	7.61%
PERSONAL INCOME (MILLIONS 1996 \$)	12,322.58	17,809.42	19,250.91	19,765.79	20,310.85	21,094.40	21,760.19	22,437.30	23,130.05	23,838.89	27,644.39	31,938.74	36,804.67	42,339.03
INCOME PER CAPITA (1996 \$)	18,508.40	22,339.66	23,124.33	23,372.43	23,670.03	23,886.22	24,166.42	24,449.07	24,741.33	25,040.06	26,580.96	28,273.81	30,123.64	32,114.36
W&P WEALTH INDEX (U.S. = 100)	78.07	78.33	81.45	81.13	81.13	81.11	81.08	81.05	81.04	81.02	81.06	81.22	81.49	81.87
PERSONS PER HOUSEHOLD (PEOPLE)	2.65	2.60	2.57	2.56	2.55	2.54	2.53	2.52	2.51	2.50	2.47	2.46	2.47	2.49
MEAN HOUSEHOLD INCOME (1996 \$)	43,452.14	51,182.86	53,480.43	53,603.29	54,007.43	54,259.43	54,665.00	55,094.14	55,553.14	56,027.43	58,720.14	62,149.14	66,270.14	71,115.71
NUMBER OF HOUSEHOLDS (THOUSANDS)	251.34	307.09	323.95	330.54	336.83	348.04	356.13	364.18	372.17	380.17	420.21	458.42	494.80	529.51
LESS THAN \$10,000 (2000 \$)	12.87%	9.79%	9.33%	9.14%	8.99%	8.85%	8.72%	8.59%	8.46%	8.33%	7.62%	6.75%	5.83%	5.03%
\$10,000 TO \$19,999	16.42%	13.94%	13.33%	13.07%	12.86%	12.67%	12.49%	12.31%	12.13%	11.96%	10.94%	9.68%	8.37%	7.24%
\$20,000 TO \$29,999	17.38%	15.53%	14.85%	14.56%	14.32%	14.12%	13.91%	13.72%	13.52%	13.33%	12.21%	10.81%	9.35%	8.10%
\$30,000 TO \$44,999	20.83%	20.51%	20.34%	20.17%	20.02%	19.91%	19.78%	19.65%	19.51%	19.36%	18.18%	16.20%	14.03%	12.16%
\$45,000 TO \$59,999	14.01%	14.59%	15.28%	15.61%	15.86%	16.08%	16.31%	16.52%	16.73%	16.94%	18.05%	18.98%	18.78%	17.56%
\$60,000 TO \$74,999	8.05%	9.91%	10.38%	10.61%	10.79%	10.95%	11.12%	11.28%	11.44%	11.61%	12.73%	14.47%	16.76%	18.77%
\$75,000 TO \$99,999	5.29%	8.11%	8.50%	8.69%	8.84%	8.97%	9.11%	9.24%	9.38%	9.52%	10.44%	11.89%	13.83%	16.02%
\$100,000 OR MORE	5.15%	7.61%	7.99%	8.17%	8.31%	8.44%	8.57%	8.69%	8.82%	8.95%	9.83%	11.21%	13.05%	15.12%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 7 counties in the EIA's; income per capita calculated using personal income/total population for the EIA; person per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-28

## Demographic and Employment Baseline Projections for Economic Impact Area FL-2

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	472.24	577.43	592.26	599.70	609.81	619.51	627.71	635.91	644.04	652.17	694.50	738.07	783.36	831.46
AGE UNDER 19 YEARS	30.41%	27.35%	26.00%	25.73%	25.51%	25.29%	25.14%	25.07%	24.97%	24.83%	24.78%	25.36%	25.54%	25.55%
AGE 20 TO 34 YEARS	25.81%	23.71%	24.46%	24.41%	24.25%	24.16%	24.10%	23.96%	23.79%	23.45%	20.97%	19.44%	19.05%	19.24%
AGE 35 TO 49 YEARS	19.89%	22.14%	21.20%	20.95%	20.80%	20.56%	20.30%	20.03%	19.88%	19.84%	20.73%	21.01%	20.37%	18.40%
AGE 50 TO 64 YEARS	12.27%	15.24%	16.53%	17.04%	17.43%	17.82%	18.14%	18.42%	18.61%	18.92%	18.86%	17.87%	17.31%	18.35%
AGE 65 YEARS AND OVER	11.62%	11.56%	11.80%	11.87%	12.01%	12.16%	12.33%	12.52%	12.74%	12.96%	14.67%	16.31%	17.73%	18.46%
MEDIAN AGE OF POPULATION (YEARS)	32.95	36.58	36.81	36.88	37.16	37.46	37.73	37.98	38.20	38.43	39.17	39.82	40.68	41.24
WHITE POPULATION	71.19%	67.94%	67.40%	67.20%	67.00%	66.69%	66.38%	66.07%	65.76%	65.45%	63.94%	62.42%	60.90%	59.25%
BLACK POPULATION	25.57%	26.84%	26.84%	26.78%	26.88%	27.07%	27.24%	27.42%	27.61%	27.80%	28.68%	29.61%	30.55%	31.59%
NATIVE AMERICAN POPULATION	0.41%	0.48%	0.48%	0.49%	0.48%	0.48%	0.47%	0.47%	0.47%	0.47%	0.45%	0.42%	0.40%	0.37%
ASIAN AND PACIFIC ISLANDER POP	0.74%	1.11%	1.22%	1.28%	1.30%	1.34%	1.37%	1.40%	1.44%	1.47%	1.64%	1.79%	1.97%	2.16%
HISPANIC POPULATION	2.09%	3.63%	4.06%	4.24%	4.33%	4.43%	4.53%	4.63%	4.72%	4.82%	5.29%	5.75%	6.19%	6.63%
MALE POPULATION	49.08%	49.87%	50.17%	50.25%	50.29%	50.29%	50.31%	50.32%	50.33%	50.34%	50.39%	50.37%	50.34%	50.32%
TOTAL EMPLOYMENT (THOUSANDS)	241.45	301.77	306.38	312.12	317.83	323.52	329.19	334.84	340.50	346.13	374.26	402.29	430.26	458.17
FARM EMPLOYMENT	3.66%	3.20%	3.15%	3.09%	3.03%	2.98%	2.93%	2.88%	2.83%	2.78%	2.56%	2.38%	2.22%	2.08%
AGRICULTURAL SERVICES, OTHER	1.34%	1.53%	1.49%	1.50%	1.51%	1.52%	1.53%	1.54%	1.55%	1.56%	1.60%	1.63%	1.66%	1.69%
MINING	0.21%	0.12%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	0.10%	0.10%	0.10%	0.09%	0.09%
CONSTRUCTION	5.29%	5.23%	5.37%	5.33%	5.29%	5.24%	5.21%	5.17%	5.13%	5.10%	4.94%	4.81%	4.70%	4.60%
MANUFACTURING	7.79%	5.69%	4.96%	4.91%	4.85%	4.79%	4.74%	4.69%	4.64%	4.59%	4.38%	4.20%	4.04%	3.89%
TRANSPORT, COMM. & PUBLIC UTIL	2.76%	2.90%	2.47%	2.47%	2.47%	2.46%	2.46%	2.46%	2.46%	2.45%	2.44%	2.43%	2.43%	2.42%
WHOLESALE TRADE	2.91%	2.78%	2.56%	2.54%	2.51%	2.49%	2.47%	2.45%	2.42%	2.40%	2.31%	2.24%	2.17%	2.11%
RETAIL TRADE	17.16%	16.22%	16.01%	15.91%	15.81%	15.72%	15.63%	15.54%	15.45%	15.37%	15.00%	14.68%	14.40%	14.16%
FINANCE, INS. & REAL ESTATE	5.16%	5.05%	5.53%	5.50%	5.48%	5.46%	5.44%	5.42%	5.40%	5.38%	5.30%	5.24%	5.18%	5.12%
SERVICES	22.70%	27.86%	28.98%	29.53%	30.07%	30.58%	31.08%	31.57%	32.03%	32.48%	34.51%	36.25%	37.75%	39.07%
FEDERAL CIVILIAN GOVT	1.57%	1.38%	1.26%	1.25%	1.23%	1.21%	1.20%	1.18%	1.17%	1.15%	1.09%	1.04%	0.99%	0.95%
FEDERAL MILITARY GOVT	0.64%	0.46%	0.46%	0.45%	0.44%	0.44%	0.43%	0.42%	0.41%	0.41%	0.37%	0.34%	0.32%	0.30%
STATE AND LOCAL GOVT	28.81%	27.57%	27.65%	27.43%	27.21%	26.99%	26.79%	26.59%	26.40%	26.22%	25.38%	24.67%	24.06%	23.52%
TOTAL EARNINGS (MILLIONS 1996 \$)	6,062.48	8,577.46	8,810.41	9,114.46	9,345.09	9,577.30	9,812.24	10,046.07	10,284.76	10,528.48	11,828.21	13,277.52	14,897.13	16,709.80
FARM EARNINGS	2.86%	1.91%	1.43%	1.88%	1.87%	1.87%	1.87%	1.86%	1.86%	1.86%	1.84%	1.82%	1.79%	1.77%
AGRICULTURAL SERVICES, OTHER	0.83%	0.85%	0.86%	0.80%	0.80%	0.81%	0.81%	0.81%	0.82%	0.82%	0.83%	0.85%	0.88%	0.90%
MINING	0.23%	0.17%	0.17%	0.17%	0.16%	0.16%	0.16%	0.16%	0.15%	0.15%	0.14%	0.13%	0.12%	0.11%
CONSTRUCTION	5.06%	4.82%	5.11%	5.21%	5.15%	5.10%	5.04%	4.99%	4.94%	4.88%	4.65%	4.44%	4.26%	4.08%
MANUFACTURING	9.51%	7.09%	6.29%	6.29%	6.20%	6.13%	6.07%	6.02%	5.96%	5.91%	5.61%	5.27%	4.91%	4.52%
TRANSPORT, COMM. & PUBLIC UTIL	3.72%	3.77%	3.21%	3.34%	3.33%	3.32%	3.31%	3.30%	3.29%	3.28%	3.24%	3.19%	3.15%	3.10%
WHOLESALE TRADE	3.68%	3.41%	2.96%	2.97%	2.93%	2.89%	2.86%	2.83%	2.79%	2.76%	2.61%	2.47%	2.34%	2.21%
RETAIL TRADE	9.68%	8.63%	8.66%	8.54%	8.46%	8.37%	8.30%	8.23%	8.16%	8.10%	7.78%	7.48%	7.20%	6.93%
FINANCE, INS. & REAL ESTATE	3.61%	5.02%	5.83%	5.64%	5.66%	5.67%	5.68%	5.69%	5.71%	5.72%	5.76%	5.79%	5.81%	5.81%
SERVICES	20.32%	25.49%	26.61%	26.89%	27.48%	28.06%	28.62%	29.18%	29.73%	30.27%	32.86%	35.31%	37.67%	39.95%
FEDERAL CIVILIAN GOVT	2.99%	2.86%	2.87%	3.02%	2.99%	2.96%	2.92%	2.89%	2.85%	2.82%	2.66%	2.50%	2.36%	2.22%
FEDERAL MILITARY GOVT	0.44%	0.34%	0.55%	0.35%	0.35%	0.34%	0.34%	0.34%	0.33%	0.33%	0.31%	0.29%	0.27%	0.25%
STATE AND LOCAL GOVT	37.06%	35.63%	35.44%	34.91%	34.61%	34.32%	34.02%	33.71%	33.40%	33.11%	31.71%	30.44%	29.26%	28.15%
PERSONAL INCOME (MILLIONS 1996 \$)	8,106.37	11,724.84	12,111.99	12,370.14	12,665.57	12,998.34	13,338.86	13,684.21	14,036.96	14,397.35	16,321.19	18,469.10	20,873.41	23,571.75
INCOME PER CAPITA (1996 \$)	17,165.88	20,305.15	20,450.60	20,627.11	20,769.67	20,981.81	21,250.03	21,519.02	21,795.34	22,076.04	23,500.60	25,023.58	26,646.07	28,349.97
W&P WEALTH INDEX (U.S. = 100)	67.72	65.14	64.61	64.60	64.26	64.24	64.22	64.20	64.18	64.16	64.06	63.96	63.87	63.77
PERSONS PER HOUSEHOLD (PEOPLE)	2.72	2.64	2.62	2.61	2.60	2.59	2.58	2.57	2.56	2.55	2.52	2.51	2.51	2.53
MEAN HOUSEHOLD INCOME (1996 \$)	40,180.33	45,050.73	43,989.00	44,202.47	44,193.27	44,399.60	44,733.13	45,071.93	45,436.67	45,808.73	47,835.87	50,329.80	53,256.07	56,633.07
NUMBER OF HOUSEHOLDS (THOUSANDS)	173.52	219.00	226.45	230.12	234.68	239.39	243.46	247.51	251.51	255.51	275.58	294.40	311.87	328.05
LESS THAN \$10,000 (2000 \$)	17.45%	14.98%	14.47%	14.29%	14.08%	13.88%	13.68%	13.48%	13.29%	13.10%	12.19%	11.04%	9.90%	8.67%
\$10,000 TO \$19,999	18.14%	15.75%	15.28%	15.10%	14.91%	14.68%	14.46%	14.24%	14.02%	13.81%	12.80%	11.58%	10.38%	9.08%
\$20,000 TO \$29,999	16.21%	15.25%	14.83%	14.67%	14.49%	14.28%	14.07%	13.87%	13.66%	13.47%	12.51%	11.33%	10.16%	8.89%
\$30,000 TO \$44,999	18.65%	18.16%	18.42%	18.52%	18.63%	18.70%	18.75%	18.78%	18.80%	18.79%	18.52%	17.58%	16.23%	14.32%
\$45,000 TO \$59,999	11.87%	12.84%	13.27%	13.43%	13.62%	13.82%	14.02%	14.23%	14.43%	14.64%	15.73%	16.97%	17.87%	18.31%
\$60,000 TO \$74,999	7.14%	8.52%	8.79%	8.89%	9.01%	9.14%	9.28%	9.41%	9.55%	9.69%	10.43%	11.57%	12.97%	14.87%
\$75,000 TO \$99,999	5.12%	7.41%	7.65%	7.73%	7.82%	7.94%	8.06%	8.19%	8.32%	8.44%	9.11%	10.16%	11.43%	13.14%
\$100,000 OR MORE	5.42%	7.08%	7.30%	7.36%	7.44%	7.56%	7.68%	7.80%	7.93%	8.05%	8.71%	9.78%	11.04%	12.71%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 15 counties in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-29

Demographic and Employment Baseline Projections for Economic Impact Area FL-3

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	472.24	577.43	592.26	599.70	609.81	619.51	627.71	635.91	644.04	652.17	694.50	738.07	783.36	831.46
AGE UNDER 19 YEARS	30.41%	27.35%	26.00%	25.73%	25.51%	25.29%	25.14%	25.07%	24.97%	24.83%	24.78%	25.36%	25.54%	25.55%
AGE 20 TO 34 YEARS	25.81%	23.71%	24.46%	24.41%	24.25%	24.16%	24.10%	23.96%	23.79%	23.45%	20.97%	19.44%	19.05%	19.24%
AGE 35 TO 49 YEARS	19.89%	22.14%	21.20%	20.95%	20.80%	20.56%	20.30%	20.03%	19.88%	19.84%	20.73%	21.01%	20.37%	18.40%
AGE 50 TO 64 YEARS	12.27%	15.24%	16.53%	17.04%	17.43%	17.82%	18.14%	18.42%	18.61%	18.92%	18.86%	17.87%	17.31%	18.35%
AGE 65 YEARS AND OVER	11.62%	11.56%	11.80%	11.87%	12.01%	12.16%	12.33%	12.52%	12.74%	12.96%	14.67%	16.31%	17.73%	18.46%
MEDIAN AGE OF POPULATION (YEARS)	32.95	36.58	36.81	36.88	37.16	37.46	37.73	37.98	38.20	38.43	39.17	39.82	40.68	41.24
WHITE POPULATION	71.19%	67.94%	67.40%	67.20%	67.00%	66.69%	66.38%	66.07%	65.76%	65.45%	63.94%	62.42%	60.90%	59.25%
BLACK POPULATION	25.57%	26.84%	26.84%	26.78%	26.88%	27.07%	27.24%	27.42%	27.61%	27.80%	28.68%	29.61%	30.55%	31.59%
NATIVE AMERICAN POPULATION	0.41%	0.48%	0.48%	0.49%	0.48%	0.48%	0.47%	0.47%	0.47%	0.47%	0.45%	0.42%	0.40%	0.37%
ASIAN AND PACIFIC ISLANDER POP	0.74%	1.11%	1.22%	1.28%	1.30%	1.34%	1.37%	1.40%	1.44%	1.47%	1.64%	1.79%	1.97%	2.16%
HISPANIC POPULATION	2.09%	3.63%	4.06%	4.24%	4.33%	4.43%	4.53%	4.63%	4.72%	4.82%	5.29%	5.75%	6.19%	6.63%
MALE POPULATION	49.08%	49.87%	50.17%	50.25%	50.29%	50.29%	50.31%	50.32%	50.33%	50.34%	50.39%	50.37%	50.34%	50.32%
TOTAL EMPLOYMENT (THOUSANDS)	241.45	301.77	306.38	312.12	317.83	323.52	329.19	334.84	340.50	346.13	374.26	402.29	430.26	458.17
FARM EMPLOYMENT	3.66%	3.20%	3.15%	3.09%	3.03%	2.98%	2.93%	2.88%	2.83%	2.78%	2.56%	2.38%	2.22%	2.08%
AGRICULTURAL SERVICES, OTHER	1.34%	1.53%	1.49%	1.50%	1.51%	1.52%	1.53%	1.54%	1.55%	1.56%	1.60%	1.63%	1.66%	1.69%
MINING	0.21%	0.12%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	0.10%	0.10%	0.10%	0.09%	0.09%
CONSTRUCTION	5.29%	5.23%	5.37%	5.33%	5.29%	5.24%	5.21%	5.17%	5.13%	5.10%	4.94%	4.81%	4.70%	4.60%
MANUFACTURING	7.79%	5.69%	4.96%	4.91%	4.85%	4.79%	4.74%	4.69%	4.64%	4.59%	4.38%	4.20%	4.04%	3.89%
TRANSPORT, COMM. & PUBLIC UTIL	2.76%	2.90%	2.47%	2.47%	2.47%	2.46%	2.46%	2.46%	2.46%	2.45%	2.44%	2.43%	2.43%	2.42%
WHOLESALE TRADE	2.91%	2.78%	2.56%	2.54%	2.51%	2.49%	2.47%	2.45%	2.42%	2.40%	2.31%	2.24%	2.17%	2.11%
RETAIL TRADE	17.16%	16.22%	16.01%	15.91%	15.81%	15.72%	15.63%	15.54%	15.45%	15.37%	15.00%	14.68%	14.40%	14.16%
FINANCE, INS. & REAL ESTATE	5.16%	5.05%	5.53%	5.50%	5.48%	5.46%	5.44%	5.42%	5.40%	5.38%	5.30%	5.24%	5.18%	5.12%
SERVICES	22.70%	27.86%	28.98%	29.53%	30.07%	30.58%	31.08%	31.57%	32.03%	32.48%	34.51%	36.25%	37.75%	39.07%
FEDERAL CIVILIAN GOVT	1.57%	1.38%	1.26%	1.25%	1.23%	1.21%	1.20%	1.18%	1.17%	1.15%	1.09%	1.04%	0.99%	0.95%
FEDERAL MILITARY GOVT	0.64%	0.46%	0.46%	0.45%	0.44%	0.44%	0.43%	0.42%	0.41%	0.41%	0.37%	0.34%	0.32%	0.30%
STATE AND LOCAL GOVT	28.81%	27.57%	27.65%	27.43%	27.21%	26.99%	26.79%	26.59%	26.40%	26.22%	25.38%	24.67%	24.06%	23.52%
TOTAL EARNINGS (MILLIONS 1996 \$)	6,062.48	8,577.46	8,810.41	9,114.46	9,345.09	9,577.30	9,812.24	10,046.07	10,284.76	10,528.48	11,828.21	13,277.52	14,897.13	16,709.80
FARM EARNINGS	2.86%	1.91%	1.43%	1.88%	1.87%	1.87%	1.87%	1.86%	1.86%	1.86%	1.84%	1.82%	1.79%	1.77%
AGRICULTURAL SERVICES, OTHER	0.83%	0.85%	0.86%	0.80%	0.80%	0.81%	0.81%	0.82%	0.82%	0.83%	0.85%	0.87%	0.88%	0.90%
MINING	0.23%	0.17%	0.17%	0.17%	0.16%	0.16%	0.16%	0.16%	0.15%	0.15%	0.14%	0.13%	0.12%	0.11%
CONSTRUCTION	5.06%	4.82%	5.11%	5.21%	5.15%	5.10%	5.04%	4.99%	4.94%	4.88%	4.65%	4.44%	4.26%	4.08%
MANUFACTURING	9.51%	7.09%	6.29%	6.29%	6.20%	6.13%	6.07%	6.02%	5.96%	5.91%	5.61%	5.27%	4.91%	4.52%
TRANSPORT, COMM. & PUBLIC UTIL	3.72%	3.77%	3.21%	3.34%	3.33%	3.32%	3.31%	3.30%	3.29%	3.28%	3.24%	3.19%	3.15%	3.10%
WHOLESALE TRADE	3.68%	3.41%	2.96%	2.97%	2.93%	2.89%	2.86%	2.83%	2.79%	2.76%	2.61%	2.47%	2.34%	2.21%
RETAIL TRADE	9.68%	8.63%	8.66%	8.54%	8.46%	8.37%	8.30%	8.23%	8.16%	8.10%	7.78%	7.48%	7.20%	6.93%
FINANCE, INS. & REAL ESTATE	3.61%	5.02%	5.83%	5.64%	5.66%	5.67%	5.68%	5.69%	5.71%	5.72%	5.76%	5.79%	5.81%	5.81%
SERVICES	20.32%	25.49%	26.61%	26.89%	27.48%	28.06%	28.62%	29.18%	29.73%	30.27%	32.86%	35.31%	37.67%	39.95%
FEDERAL CIVILIAN GOVT	2.99%	2.86%	2.87%	3.02%	2.99%	2.96%	2.92%	2.89%	2.85%	2.82%	2.66%	2.50%	2.36%	2.22%
FEDERAL MILITARY GOVT	0.44%	0.34%	0.55%	0.35%	0.35%	0.34%	0.34%	0.34%	0.33%	0.33%	0.31%	0.29%	0.27%	0.25%
STATE AND LOCAL GOVT	37.06%	35.63%	35.44%	34.91%	34.61%	34.32%	34.02%	33.71%	33.40%	33.11%	31.71%	30.44%	29.26%	28.15%
PERSONAL INCOME (MILLIONS 1996 \$)	8,106.37	11,724.84	12,111.99	12,370.14	12,665.57	12,998.34	13,338.86	13,684.21	14,036.96	14,397.35	16,321.19	18,469.10	20,873.41	23,571.75
INCOME PER CAPITA (1996 \$)	17,165.88	20,305.15	20,450.60	20,627.11	20,769.67	20,981.81	21,250.03	21,519.02	21,795.34	22,076.04	23,500.60	25,023.58	26,646.07	28,349.97
W&P WEALTH INDEX (U.S. = 100)	67.72	65.14	64.61	64.60	64.26	64.24	64.22	64.20	64.18	64.16	64.06	63.96	63.87	63.77
PERSONS PER HOUSEHOLD (PEOPLE)	2.72	2.64	2.62	2.61	2.60	2.59	2.58	2.57	2.56	2.55	2.52	2.51	2.51	2.53
MEAN HOUSEHOLD INCOME (1996 \$)	40,180.33	45,050.73	43,989.00	44,202.47	44,193.27	44,399.60	44,733.13	45,071.93	45,436.67	45,808.73	47,835.87	50,329.80	53,256.07	56,633.07
NUMBER OF HOUSEHOLDS (THOUSANDS)	173.52	219.00	226.45	230.12	234.68	239.39	243.46	247.51	251.51	255.51	275.58	294.40	311.87	328.05
LESS THAN \$10,000 (2000 \$)	17.45%	14.98%	14.47%	14.29%	14.08%	13.88%	13.68%	13.48%	13.29%	13.10%	12.19%	11.04%	9.90%	8.67%
\$10,000 TO \$19,999	18.14%	15.75%	15.28%	15.10%	14.91%	14.68%	14.46%	14.24%	14.02%	13.81%	12.80%	11.58%	10.38%	9.08%
\$20,000 TO \$29,999	16.21%	15.25%	14.83%	14.67%	14.49%	14.28%	14.07%	13.87%	13.66%	13.47%	12.51%	11.33%	10.16%	8.89%
\$30,000 TO \$44,999	18.65%	18.16%	18.42%	18.52%	18.63%	18.70%	18.75%	18.78%	18.80%	18.79%	18.52%	17.58%	16.23%	14.32%
\$45,000 TO \$59,999	11.87%	12.84%	13.27%	13.43%	13.62%	13.82%	14.02%	14.23%	14.43%	14.64%	15.73%	16.97%	17.87%	18.31%
\$60,000 TO \$74,999	7.14%	8.52%	8.79%	8.89%	9.01%	9.14%	9.28%	9.41%	9.55%	9.69%	10.43%	11.57%	12.97%	14.87%
\$75,000 TO \$99,999	5.12%	7.41%	7.65%	7.73%	7.82%	7.94%	8.06%	8.19%	8.32%	8.44%	9.11%	10.16%	11.43%	13.14%
\$100,000 OR MORE	5.42%	7.08%	7.30%	7.36%	7.44%	7.56%	7.68%	7.80%	7.93%	8.05%	8.71%	9.78%	11.04%	12.71%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 12 counties in the EIA's; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-30

## Demographic and Employment Baseline Projections for Economic Impact Area FL-4

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	4,409.06	5,437.77	5,741.98	5,845.19	5,947.96	6,074.63	6,185.27	6,295.73	6,405.33	6,514.93	7,078.15	7,652.58	8,244.18	8,865.40
AGE UNDER 19 YEARS	24.61%	24.99%	25.61%	25.61%	25.45%	25.33%	25.18%	25.02%	24.84%	24.61%	24.05%	24.02%	23.79%	23.61%
AGE 20 TO 34 YEARS	22.27%	18.79%	18.13%	18.02%	17.92%	17.86%	17.86%	17.99%	18.20%	18.48%	19.32%	18.91%	18.37%	18.08%
AGE 35 TO 49 YEARS	19.25%	22.36%	22.31%	22.24%	22.12%	21.98%	21.79%	21.47%	21.09%	20.60%	18.46%	17.96%	18.48%	19.18%
AGE 50 TO 64 YEARS	14.54%	15.97%	16.62%	16.99%	17.30%	17.62%	17.88%	18.13%	18.39%	18.73%	19.61%	19.32%	18.09%	16.27%
AGE 65 YEARS AND OVER	19.33%	17.88%	17.32%	17.15%	17.20%	17.20%	17.29%	17.40%	17.49%	17.57%	18.56%	19.78%	21.27%	22.85%
MEDIAN AGE OF POPULATION (YEARS)	41.33	43.38	42.93	42.88	43.04	43.16	43.28	43.40	43.49	43.54	43.62	43.43	43.19	42.69
WHITE POPULATION	58.73%	49.95%	47.64%	47.00%	46.43%	45.72%	45.07%	44.44%	43.84%	43.26%	40.56%	38.09%	35.71%	33.37%
BLACK POPULATION	14.25%	16.35%	16.61%	16.68%	16.71%	16.83%	16.93%	17.04%	17.15%	17.27%	17.83%	18.30%	18.78%	19.27%
NATIVE AMERICAN POPULATION	0.16%	0.17%	0.17%	0.17%	0.17%	0.17%	0.16%	0.16%	0.16%	0.16%	0.15%	0.15%	0.14%	0.13%
ASIAN AND PACIFIC ISLANDER POP	1.07%	1.60%	1.73%	1.78%	1.83%	1.88%	1.93%	1.98%	2.02%	2.07%	2.30%	2.51%	2.73%	2.97%
HISPANIC POPULATION	25.79%	31.93%	33.86%	34.36%	34.87%	35.40%	35.90%	36.38%	36.82%	37.24%	39.16%	40.95%	42.65%	44.27%
MALE POPULATION	48.03%	48.49%	48.64%	48.68%	48.69%	48.69%	48.69%	48.69%	48.69%	48.69%	48.65%	48.57%	48.48%	48.35%
TOTAL EMPLOYMENT (THOUSANDS)	2,307.19	2,968.79	3,152.21	3,219.53	3,286.87	3,354.95	3,422.26	3,489.59	3,556.92	3,624.25	3,961.04	4,298.01	4,635.13	4,972.38
FARM EMPLOYMENT	0.91%	0.74%	0.72%	0.70%	0.69%	0.69%	0.68%	0.67%	0.66%	0.65%	0.61%	0.58%	0.56%	0.53%
AGRICULTURAL SERVICES, OTHER	1.48%	1.62%	1.63%	1.63%	1.62%	1.62%	1.61%	1.61%	1.61%	1.60%	1.59%	1.57%	1.56%	1.55%
MINING	0.18%	0.11%	0.09%	0.09%	0.09%	0.08%	0.08%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%	0.06%
CONSTRUCTION	6.34%	6.02%	6.08%	6.06%	6.05%	6.03%	6.02%	6.00%	5.99%	5.97%	5.91%	5.86%	5.81%	5.77%
MANUFACTURING	7.13%	5.02%	4.13%	4.06%	3.99%	3.93%	3.87%	3.81%	3.75%	3.69%	3.44%	3.23%	3.05%	2.89%
TRANSPORT, COMM. & PUBLIC UTIL	5.50%	5.77%	5.25%	5.23%	5.21%	5.19%	5.16%	5.15%	5.13%	5.11%	5.03%	4.96%	4.90%	4.85%
WHOLESALE TRADE	5.62%	5.46%	5.37%	5.33%	5.30%	5.26%	5.23%	5.20%	5.17%	5.14%	5.02%	4.91%	4.82%	4.74%
RETAIL TRADE	18.95%	17.52%	16.98%	16.87%	16.77%	16.68%	16.58%	16.49%	16.41%	16.33%	15.96%	15.64%	15.38%	15.14%
FINANCE, INS. & REAL ESTATE SERVICES	9.76%	9.28%	9.86%	9.75%	9.65%	9.55%	9.46%	9.37%	9.28%	9.20%	8.82%	8.51%	8.24%	8.00%
FEDERAL CIVILIAN GOVT	32.18%	37.54%	38.92%	39.28%	39.62%	39.94%	40.26%	40.56%	40.85%	41.13%	42.38%	43.44%	44.35%	45.13%
FEDERAL MILITARY GOVT	1.33%	1.13%	1.08%	1.07%	1.05%	1.04%	1.03%	1.01%	1.00%	0.99%	0.94%	0.90%	0.86%	0.83%
STATE AND LOCAL GOVT	0.96%	0.54%	0.54%	0.52%	0.51%	0.50%	0.49%	0.48%	0.47%	0.46%	0.42%	0.39%	0.36%	0.33%
TOTAL EARNINGS (MILLIONS 1996 \$)	65,537.44	97,034.41	106,269.68	110,006.77	113,143.91	116,344.75	119,580.82	122,828.55	126,151.11	129,550.60	147,777.88	168,268.13	191,341.21	217,359.42
FARM EARNINGS	0.87%	0.40%	0.36%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.51%
AGRICULTURAL SERVICES, OTHER	0.89%	0.84%	0.78%	0.80%	0.80%	0.79%	0.79%	0.79%	0.79%	0.79%	0.77%	0.76%	0.76%	0.75%
MINING	0.16%	0.15%	0.14%	0.10%	0.10%	0.10%	0.09%	0.09%	0.09%	0.09%	0.08%	0.07%	0.06%	0.06%
CONSTRUCTION	6.71%	5.99%	6.32%	6.66%	6.62%	6.58%	6.55%	6.51%	6.47%	6.43%	6.24%	6.06%	5.89%	5.72%
MANUFACTURING	8.35%	6.18%	5.43%	5.33%	5.23%	5.14%	5.07%	5.00%	4.93%	4.86%	4.51%	4.14%	3.77%	3.40%
TRANSPORT, COMM. & PUBLIC UTIL	7.46%	7.29%	6.56%	6.49%	6.45%	6.42%	6.38%	6.35%	6.31%	6.28%	6.12%	5.97%	5.82%	5.68%
WHOLESALE TRADE	7.58%	7.83%	7.67%	7.54%	7.46%	7.39%	7.32%	7.25%	7.18%	7.11%	6.79%	6.48%	6.19%	5.92%
RETAIL TRADE	12.47%	11.07%	10.51%	10.37%	10.28%	10.20%	10.12%	10.05%	9.99%	9.92%	9.60%	9.29%	8.98%	8.69%
FINANCE, INS. & REAL ESTATE SERVICES	8.04%	11.60%	11.94%	11.77%	11.72%	11.66%	11.60%	11.53%	11.47%	11.41%	11.12%	10.85%	10.60%	10.35%
FEDERAL CIVILIAN GOVT	31.19%	34.10%	35.49%	35.68%	36.06%	36.43%	36.80%	37.16%	37.52%	37.88%	39.66%	41.42%	43.19%	44.95%
FEDERAL MILITARY GOVT	2.65%	2.31%	2.29%	2.25%	2.23%	2.21%	2.18%	2.15%	2.13%	2.10%	1.98%	1.86%	1.75%	1.65%
STATE AND LOCAL GOVT	0.85%	0.42%	0.61%	0.60%	0.59%	0.58%	0.57%	0.56%	0.55%	0.54%	0.49%	0.45%	0.42%	0.38%
PERSONAL INCOME (MILLIONS 1996 \$)	107,074.07	148,829.68	159,378.99	165,192.92	170,531.47	175,696.02	180,935.65	186,274.82	191,747.27	197,357.39	227,623.10	262,015.91	301,215.82	346,011.24
INCOME PER CAPITA (1996 \$)	24,284.99	27,369.63	27,756.78	28,261.34	28,670.59	28,922.93	29,252.67	29,587.47	29,935.58	30,293.09	32,158.55	34,238.88	36,536.77	39,029.40
W&P WEALTH INDEX (U.S. = 100)	115.41	108.80	109.28	109.95	110.29	110.52	110.73	110.95	111.17	111.39	112.56	113.80	115.12	116.51
PERSONS PER HOUSEHOLD (PEOPLE)	2.53	2.58	2.56	2.55	2.55	2.54	2.54	2.53	2.53	2.53	2.52	2.53	2.55	2.59
MEAN HOUSEHOLD INCOME (1996 \$)	58,793.56	67,480.78	66,681.00	67,895.22	68,779.22	69,363.89	70,141.67	70,943.78	71,786.33	72,656.22	77,391.11	83,120.33	89,836.33	97,620.00
NUMBER OF HOUSEHOLDS (THOUSANDS)	1,739.76	2,104.41	2,243.27	2,289.34	2,335.58	2,390.04	2,437.85	2,485.23	2,531.94	2,578.44	2,808.96	3,024.42	3,227.09	3,418.04
LESS THAN \$10,000 (2000 \$)	11.70%	10.26%	9.87%	9.62%	9.38%	9.26%	9.12%	8.99%	8.86%	8.73%	7.95%	7.03%	6.21%	5.46%
\$10,000 TO \$19,999	14.85%	13.50%	13.06%	12.76%	12.48%	12.32%	12.15%	11.98%	11.81%	11.64%	10.64%	9.43%	8.35%	7.37%
\$20,000 TO \$29,999	15.28%	14.03%	13.60%	13.31%	13.04%	12.88%	12.70%	12.52%	12.34%	12.17%	11.14%	9.90%	8.77%	7.75%
\$30,000 TO \$44,999	19.48%	18.48%	18.27%	18.06%	17.84%	17.70%	17.53%	17.34%	17.14%	16.94%	15.61%	13.88%	12.30%	10.87%
\$45,000 TO \$59,999	13.98%	13.54%	13.98%	14.31%	14.61%	14.79%	14.97%	15.16%	15.33%	15.49%	16.20%	16.39%	15.53%	14.03%
\$60,000 TO \$74,999	8.80%	9.50%	9.82%	10.05%	10.27%	10.40%	10.55%	10.71%	10.87%	11.03%	12.11%	13.64%	15.24%	16.47%
\$75,000 TO \$99,999	6.49%	8.98%	9.28%	9.49%	9.70%	9.83%	9.97%	10.11%	10.26%	10.41%	11.43%	12.90%	14.59%	16.53%
\$100,000 OR MORE	9.41%	11.71%	12.11%	12.40%	12.67%	12.83%	13.01%	13.20%	13.39%	13.59%	14.92%	16.82%	19.00%	21.51%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 9 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.



Table 3-31  
OCS-Related Service Bases

Planning Area	Economic Impact Area	Service Base	County	Planning Area	Economic Impact Area	Service Base	County or Parish	
WPA	TX-1	Aransas Pass	Nueces	CPA	LA-1	Cameron	Cameron	
		Bayside	Aransas			Grand Chenier	Cameron	
		Corpus Christi	Nueces			Lake Charles	Calcasieu	
		Harbor Island	Nueces			Abbeville	Vermilion	
		Ingleside	San Patricio			Erath	Vermilion	
	TX-2	Port Aransas	Nueces		LA-2	Freshwater City	Vermilion	
		Port Isabel	Cameron			Intracoastal City	Vermilion	
		Port Mansfield	Willacy			Kaplan	Vermilion	
		Rockport	Aransas			New Iberia	Iberia	
		Freeport	Brazoria			Weeks Island	Iberia	
TX-3	Port O'Connor	Calhoun	LA-3	Amelia	St Mary			
	Galveston	Galveston		Bayou Boeuf	St Mary			
	Pelican Island	Galveston		Berwick	St Mary			
	Port Arthur	Jefferson		Cocodrie	Terrebonne			
	Sabine Pass	Jefferson		Dulac	Terrebonne			
EPA	FL-1	Panama City	Bay	LA-4	Fourchon	Lafourche		
					Surfside	Harris	Gibson	Terrebonne
					FL-2	NA	Houma	Terrebonne
					FL-3	NA	Leeville	Lafourche
	FL-4	NA				Louisa	St Mary	
						Morgan City	St Mary	
						Patterson	St Mary	
						Theriot	Terrebonne	
						Empire	Plaquemines	
						Grand Isle	Jefferson	
				Harvey	Jefferson			
				Hopedale	St Bernard			
				Paradis	St Charles			
				Venice	Plaquemines			
				MS-1	Pascagoula	Jackson		
				AL-1	Bayou LaBatre	Mobile		
					Mobile	Mobile		
					Theodore	Mobile		

NA means that information is not available.

Source: USDOI, MMS, 2001.

Table 3-32

## 2001 Hunting and Wildlife Watching in Gulf States by U.S. Residents

	Alabama	Mississippi	Louisiana	Texas	Florida	Total
Hunting						
Hunters	423,000	357,000	333,000	1,201,000	226,000	2,540,000
Resident	307,000	245,000	295,000	1,100,000	191,000	2,138,000
Nonresident	116,000	111,000	38,000	100,000	35,000	400,000
Total Expenditures (\$million)	\$663.6	\$360.3	\$446.2	\$1,513.8	\$394.2	\$3,378.1
Trip-related	\$195.9	\$132.1	\$120.7	\$555.8	\$120.0	\$1,124.5
Equipment & Other	\$467.7	\$228.2	\$325.5	\$958.0	\$274.3	\$2,253.7
Wildlife Watching						
Total Participants	1,016,000	631,000	935,000	3,240,000	3,240,000	9,062,000
Residential	925,000	576,000	806,000	1,002,000	2,635,000	5,944,000
Nonresidential	276,000	131,000	314,000	2,930,000	1,503,000	5,154,000
Total Expenditures (\$million)	\$626.4	\$303.5	\$168.4	\$1,283.0	\$1,575.5	\$3,956.8
Trip-related	\$79.5	\$36.1	\$55.4	\$228.8	\$675.4	\$1,075.2
Equipment & Other	\$546.9	\$267.4	\$113.0	\$1,054.2	\$900.1	\$2,881.6

Source: USDOJ, FWS and USDOC, Bureau of the Census, 2001.

Table 3-33

## Number of Shipwrecks by Planning Area and Lease Area

Western Planning Area		Central Planning Area	
Lease Area	Number of Wrecks	Lease Area	Number of Wrecks
Alaminos Canyon	1	Atwater Valley	4
Brazos	60	Bay Marchand	3
Corpus Christy	3	Breton Sound	13
East Breaks	7	Chandeleur	8
Galveston	113	DeSoto Canyon	3
Garden Banks	2	East Cameron	45
High Island	108	Eugene Island	92
Keathley Canyon	1	Ewing Bank	2
Matagorda Island	42	Green Canyon	14
Mustang Island	66	Grand Isle	29
North Padre Island	38	Lloyd Ridge	3
Port Isabel	2	Lund	11
Sabine Pass (Texas)	49	Mississippi Canyon	40
South Padre Island	2	Mobile	54

Table 3-34

Population and Employment Projections for Counties/Parishes Most Negatively Impacted  
by Hurricanes Katrina and Rita

Population Projections										
	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
ST. BERNARD, LA	65,364	9,288	12,188	15,090	17,982	20,878	35,537	50,333	65,310	80,569
ORLEANS, LA	454,863	153,983	164,858	175,742	186,587	197,454	253,033	309,485	366,912	425,702
PLAQUEMINES, LA	28,995	14,204	14,797	15,391	15,981	16,572	19,612	22,708	25,869	29,126
JEFFERSON, LA	452,824	405,011	411,322	417,635	423,898	430,175	462,817	496,415	531,255	568,032
CAMERON, LA	9,558	8,686	8,739	8,792	8,844	8,897	9,188	9,498	9,832	10,201
HANCOCK, MS	46,711	39,313	40,382	41,451	42,513	43,577	49,021	54,565	60,246	66,156
JACKSON, MS	135,940	130,740	132,342	133,945	135,532	137,121	145,437	154,025	162,974	172,499
HARRISON, MS	193,810	190,401	192,674	194,946	197,195	199,449	211,240	223,421	236,125	249,664
Population Level Compared to 2005 Pre-Katrina and Rita Population										
	2006	2007	2008	2009	2010	2015	2020	2025	2030	
ST. BERNARD, LA	14%	19%	23%	28%	32%	54%	77%	100%	123%	
ORLEANS, LA	34%	36%	39%	41%	43%	56%	68%	81%	94%	
PLAQUEMINES, LA	49%	51%	53%	55%	57%	68%	78%	89%	100%	
JEFFERSON, LA	89%	91%	92%	94%	95%	102%	110%	117%	125%	
CAMERON, LA	91%	91%	92%	93%	93%	96%	99%	103%	107%	
HANCOCK, MS	84%	86%	89%	91%	93%	105%	117%	129%	142%	
JACKSON, MS	96%	97%	99%	100%	101%	107%	113%	120%	127%	
HARRISON, MS	98%	99%	101%	102%	103%	109%	115%	122%	129%	
Employment Projections										
	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
ST. BERNARD, LA	24,815	3,521	4,622	5,727	6,831	7,937	13,516	19,109	24,693	30,230
ORLEANS, LA	319,010	108,204	116,348	124,566	132,833	141,177	184,328	229,214	275,644	323,380
PLAQUEMINES, LA	20,787	10,306	10,889	11,483	12,092	12,710	16,014	19,622	23,516	27,682
JEFFERSON, LA	285,724	257,505	264,084	270,694	277,335	284,006	317,861	352,350	387,339	422,688
CAMERON, LA	4,980	4,588	4,684	4,786	4,887	4,988	5,495	6,015	6,537	7,070
HANCOCK, MS	22,560	18,912	19,392	19,878	20,358	20,839	23,248	25,645	28,036	30,406
JACKSON, MS	63,692	61,128	61,902	62,673	63,447	64,219	68,096	71,985	75,876	79,760
HARRISON, MS	132,051	130,648	133,435	136,226	139,020	141,817	155,867	170,005	184,196	198,438
Employment Level Compared to 2005 Pre-Katrina and Rita Employment										
	2006	2007	2008	2009	2010	2015	2020	2025	2030	
ST. BERNARD, LA	14%	19%	23%	28%	32%	54%	77%	100%	122%	
ORLEANS, LA	34%	36%	39%	42%	44%	58%	72%	86%	101%	
PLAQUEMINES, LA	50%	52%	55%	58%	61%	77%	94%	113%	133%	
JEFFERSON, LA	90%	92%	95%	97%	99%	111%	123%	136%	148%	
CAMERON, LA	92%	94%	96%	98%	100%	110%	121%	131%	142%	
HANCOCK, MS	84%	86%	88%	90%	92%	103%	114%	124%	135%	
JACKSON, MS	96%	97%	98%	100%	101%	107%	113%	119%	125%	
HARRISON, MS	99%	101%	103%	105%	107%	118%	129%	139%	150%	

Source: Woods &amp; Poole Economics, Inc., 2006.

Table 3-35

Baseline Population Projections (in thousands) by Economic Impact Area

Model Year	Calendar Year	AL-1	MS-1	LA-1	LA-2	LA-3	LA-4	TX-1	TX-2	TX-3	FL-1	FL-2	FL-3	FL-4
	2005	697.06	478.42	334.83	562.44	1,045.93	1,385.14	1,651.49	587.87	5,533.80	858.08	609.81	3,421.40	5,947.96
	2006	741.71	475.94	339.74	580.30	1,149.95	1,054.72	1,686.51	596.61	5,665.75	883.12	619.51	3,476.93	6,074.63
1	2007	746.26	481.50	340.82	583.19	1,156.01	1,077.29	1,717.47	602.86	5,739.75	900.43	627.71	3,523.45	6,185.27
2	2008	750.82	487.07	341.91	586.09	1,162.08	1,099.87	1,748.38	609.11	5,813.67	917.72	635.91	3,569.92	6,295.73
3	2009	755.30	492.57	342.96	588.93	1,168.03	1,122.30	1,779.06	615.29	5,886.89	934.88	644.04	3,615.97	6,405.33
4	2010	759.80	498.09	344.03	591.80	1,174.01	1,144.78	1,809.74	621.49	5,960.20	952.03	652.17	3,662.06	6,514.93
5	2011	764.69	503.87	345.29	594.97	1,180.55	1,168.03	1,841.28	628.01	6,036.44	969.63	660.64	3,709.98	6,627.57
6	2012	769.60	509.71	346.55	598.16	1,187.14	1,191.75	1,873.36	634.60	6,113.66	987.55	669.21	3,758.53	6,742.17
7	2013	774.55	515.62	347.81	601.37	1,193.76	1,215.96	1,906.01	641.26	6,191.87	1,005.80	677.90	3,807.72	6,858.74
8	2014	779.52	521.60	349.08	604.59	1,200.41	1,240.65	1,939.22	647.99	6,271.08	1,024.39	686.70	3,857.54	6,977.33
9	2015	784.22	526.98	350.31	607.67	1,206.74	1,261.03	1,967.42	654.09	6,341.43	1,040.01	694.50	3,901.67	7,078.15
10	2016	789.39	532.95	351.71	611.07	1,213.71	1,284.85	1,999.59	660.86	6,419.86	1,057.93	703.21	3,950.95	7,193.04
11	2017	794.59	538.99	353.11	614.50	1,220.72	1,309.12	2,032.29	667.70	6,499.26	1,076.16	712.04	4,000.85	7,309.79
12	2018	799.82	545.10	354.52	617.95	1,227.77	1,333.85	2,065.52	674.61	6,579.65	1,094.71	720.97	4,051.38	7,428.44
13	2019	805.09	551.27	355.94	621.41	1,234.86	1,359.04	2,099.30	681.59	6,661.03	1,113.57	730.02	4,102.55	7,549.01
14	2020	810.06	556.84	357.30	624.70	1,241.59	1,380.13	2,128.28	687.93	6,733.60	1,129.62	738.07	4,148.07	7,652.58
15	2021	815.60	563.07	358.87	628.40	1,249.12	1,404.67	2,161.42	695.03	6,815.11	1,148.06	747.13	4,199.26	7,770.90
16	2022	821.17	569.37	360.45	632.12	1,256.70	1,429.65	2,195.07	702.19	6,897.62	1,166.79	756.30	4,251.08	7,891.05
17	2023	826.79	575.75	362.03	635.87	1,264.32	1,455.07	2,229.25	709.44	6,981.12	1,185.83	765.58	4,303.54	8,013.06
18	2024	832.44	582.19	363.62	639.63	1,271.99	1,480.94	2,263.96	716.75	7,065.64	1,205.18	774.97	4,356.65	8,136.95
19	2025	837.76	588.00	365.15	643.20	1,279.24	1,502.83	2,293.97	723.40	7,141.18	1,221.79	783.36	4,404.02	8,244.18
20	2026	843.88	594.65	366.97	647.34	1,287.66	1,528.47	2,328.77	731.01	7,227.78	1,241.11	792.98	4,458.35	8,368.43
21	2027	850.04	601.38	368.80	651.51	1,296.12	1,554.55	2,364.09	738.70	7,315.42	1,260.73	802.72	4,513.35	8,494.54
22	2028	856.25	608.18	370.63	655.71	1,304.65	1,581.07	2,399.95	746.48	7,404.13	1,280.67	812.57	4,569.03	8,622.56
23	2029	862.51	615.06	372.48	659.93	1,313.23	1,608.04	2,436.35	754.33	7,493.91	1,300.92	822.55	4,625.39	8,752.50
24	2030	868.36	621.26	374.25	663.91	1,321.31	1,631.03	2,467.95	761.46	7,574.15	1,318.38	831.46	4,675.66	8,865.40
25	2031	874.70	628.29	376.11	668.19	1,329.99	1,658.86	2,505.38	769.47	7,665.99	1,339.23	841.67	4,733.34	8,999.09
26	2032	881.10	635.39	377.98	672.49	1,338.74	1,687.16	2,543.38	777.56	7,758.95	1,360.41	852.00	4,791.73	9,134.62
27	2033	887.53	642.58	379.87	676.82	1,347.54	1,715.94	2,581.96	785.74	7,853.03	1,381.92	862.46	4,850.85	9,272.29
28	2034	894.02	649.85	381.76	681.18	1,356.40	1,745.22	2,621.13	794.01	7,948.26	1,403.77	873.06	4,910.69	9,412.02
29	2035	900.55	657.20	383.66	685.57	1,365.32	1,774.99	2,660.89	802.36	8,044.64	1,425.96	883.78	4,971.26	9,553.87
30	2036	907.13	664.63	385.57	689.99	1,374.30	1,805.28	2,701.25	810.80	8,142.19	1,448.51	894.63	5,032.59	9,697.85
31	2037	913.76	672.15	387.50	694.43	1,383.34	1,836.08	2,742.22	819.33	8,240.92	1,471.42	905.62	5,094.67	9,844.00
32	2038	920.43	679.75	389.43	698.90	1,392.44	1,867.40	2,783.81	827.95	8,340.85	1,494.68	916.74	5,157.52	9,992.35
33	2039	927.16	687.44	391.37	703.41	1,401.59	1,899.26	2,826.04	836.66	8,441.99	1,518.32	927.99	5,221.15	10,142.94
34	2040	933.93	695.22	393.32	707.94	1,410.81	1,931.66	2,868.91	845.46	8,544.35	1,542.33	939.39	5,285.55	10,295.80
35	2041	940.76	703.08	395.28	712.50	1,420.09	1,964.62	2,912.42	854.36	8,647.96	1,566.71	950.93	5,350.76	10,450.96
36	2042	947.63	711.03	397.25	717.09	1,429.43	1,998.14	2,956.60	863.35	8,752.83	1,591.49	962.60	5,416.76	10,608.46
37	2043	954.55	719.08	399.23	721.70	1,438.83	2,032.23	3,001.45	872.43	8,858.96	1,616.65	974.42	5,483.59	10,768.33
38	2044	961.53	727.21	401.22	726.35	1,448.29	2,066.90	3,046.97	881.61	8,966.38	1,642.21	986.39	5,551.23	10,930.62
39	2045	968.55	735.43	403.22	731.03	1,457.81	2,102.16	3,093.19	890.88	9,075.11	1,668.18	998.50	5,619.71	11,095.34
40	2046	975.63	743.75	405.23	735.74	1,467.40	2,138.03	3,140.11	900.25	9,185.15	1,694.56	1,010.76	5,689.04	11,262.56

Notes: Actual Woods & Poole data for 2006 through 2010, 2015, 2020, 2025, and 2030.  
 Missing estimates through 2030 calculated using average annual growth rate for the 5-year period; projections after 2030 calculated using the average annual growth rate from 2025 to 2030.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-36

## Waterway Depth, Traffic, and Number of Trips (2004)

Waterway	Maintained Depth (ft)	Traffic (thousand short tons)	Number of Trips	
			Foreign	Domestic
<b>Gulf Intracoastal Waterway (GIWW)</b>				
Pensacola Bay, FL to Mobile Bay, AL	12	MA	0	12,689
Mobile Bay, AL to New Orleans, LA	12, 14	21,808	0	37,991
Mississippi River, LA to Sabine River, TX	12, 10	69,489	0	146,176
Sabine River, TX to Galveston, TX	12	53,211	0	71,219
Galveston, TX to Corpus Christi, TX	11, 10.2	29,025	0	56,949
Corpus Christi, TX to Mexican Border, TX	10, 12, 7	2,748	0	5,225
<b>Texas Harbors, Channels, and Waterways</b>				
Beaumont (Neches River)	39, 40, 32	91,698	2,661	23,376
Port Arthur	38	27,570	1,088	13,196
Sabine Pass Harbor	29	929	45	3,543
Sabine-Neches Waterway	40, 37, 39, 32, 27, 20, 9, 8	150,297	3,795	72,127
<b>Louisiana Harbors, Channels, and Waterways</b>				
Atchafalaya River	12	8,826	0	25,464
Atchafalaya River, Morgan City to Gulf of Mexico	20	2,379	1,715	32,442
Barataria Bay Waterway	15 and less	219		9,273
Bayou Lafourche and Lafourche-Jump Waterway	28, 27, 27, 9	6,975	1,455	57,496
Bayou Little Caillou	10 and less	184	0	4,342
Bayou Teche and Vermilion River	8, 11, 9, 8, 5	978	0	6,716
Calcasieu River and Pass (Lake Charles)	42, 41-42, 36, 12, 7	54,768	1,981	99,735
Freshwater Bayou	12	1,282	0	17,038
GIWW, Morgan City-Port Allen Route	10	24,313	0	29,150
Innerharbor Navigation Canal	30, 15	18,774	469	22,866
Mermentau River	4, 7, 12, 10, 9, 11, 6, 8, 4, 7	831	17	5,000
Mississippi River Gulf Outlet via Venice Vicinity	16, 14	2,672	155	29,315
Port of Baton Rouge	40, 9, 12	57,083	1,173	80,523
Port of New Orleans	45, 30, 32, 36, 37, 12	78,085	4,881	259,087
Port of Plaquemines	45	54,405	819	100,813
Port of South Louisiana	45	224,187	3,780	149,972
Waterway from Empire to Gulf of Mexico	6, 9, 14	1,198	0	24,746
Waterway from GIWW to Bayou Dulac	12 or less	91	0	5,211
<b>Mississippi Harbors, Channels, and Waterways</b>				
Bayou Casotte	38	33,471	787	9,727
Pascagoula Harbor	40, 38, 38, 22, 12	34,100	999	10,733
<b>Alabama Harbors, Channels, and Waterways</b>				
Black Warrior and Tombigbee Rivers	9	22,026	0	31,498
Chickasaw Creek	25	1,520	0	1,455
Dauphin Island Bay	10 and less	NA	0	8,901
Mobile Harbor	47, 45, 40, 13-39, 40	56,212	2,320	43,226
Tennessee Tombigbee Waterway	9	6,677	0	8,593
Theodore Ship Channel	40	6,266	200	5,486

NA means that information is not available.

Source: U.S. Dept. of the Army, Corps of Engineers, 2006.

Table 3-37

## Offshore Supply Vessel Specifications

	Old, Legacy Boats	New Generation, Deepwater Boats
Length (ft)	180	220'-295'
Brake Horsepower (BHP)	1,800-3,900	3,000-7,200
Cargo Capacity (DWT)	800-1,200	1,800-5,000
Liquid Mud Capacity (bbl)	800-1,200	3,000-6,000
Bulk Capacity (ft <sup>3</sup> )	1,000-2,000	3,000-9,000
Station Keeping	Traditional, single bow thruster	Joystick, multi-thruster
Dynamic Positioning	No	Yes
Cost to build (million \$)	\$2.5-\$6	\$15-\$30

Source: Barrett, 2005.

Table 3-38

## Existing Coastal Infrastructure Related to OCS Activities in the Gulf of Mexico

Infrastructure	Texas	Louisiana	Mississippi and Alabama	Florida	Total
Pipeline Landfalls	13	106	7	0	126
Service Bases	16	29	4	1	50
Helicopter Hubs	39	84	5	0	128
Platform Fabrication Yards	7	31	5	0	43
Shipyards	27	38	20	9	94
Pipecoating Plants	7	7	2	3	19
Refineries	19	14	4	0	37
Petrochemical Plants	20	9	0	0	29
Gas Processing Plants	1	28	6	0	35
Pipeline Shore Facilities	13	37	0	0	50
Barge Terminals	4	5	0	0	9
Tanker Ports	4	6	0	0	10
Waste Disposal Plants	9	21	4	0	34

Source: The Louis Berger Group, Inc., 2004.

Table 3-39

## Summary of Federal Rules Governing OCS Discharges and Injection

MMS Planning Region	Rules	Key Features
Western Planning Area	69 FR No. 245 76740 NPDES General Permit Rules	General permit restricting discharges to 29 mg/l monthly average and 49 mg/l maximum daily total oil and grease
Territorial Seas of Texas	70 FR No. 171 53008 NPDES General Permit Rules	General permit restricting discharges to 29 mg/l monthly average and 49 mg/l maximum daily total oil and grease
Central Planning Area	69 FR No. 245 76740 NPDES General Permit Rules  69 FR No. 194 60150 NPDES General Permit Rules	General permit for >200 m of water depth, restricting discharges to 29 mg/l monthly and 49 mg/l maximum daily total oil and grease
Eastern Planning Area	69 FR No. 194 60150 NPDES General Permit Rules	General permit for > 200 m of water depth, restricting discharges to 29 mg/l monthly average and 49 mg/l maximum daily total oil and grease
All of the above citations contain rules restricting discharge of domestic and sanitary sewage (including standards) and prohibiting discharge of trash in each of the MMS planning regions. Facilities located offshore of USEPA Region 6 are subject to a general Clean Water Act permit that covers all facilities in certain geographic locations. Offshore exploration and production facilities in Regions 4, 9, and 10 are also permitted individually in some cases. USEPA Regions 6 and 9 has a Memorandum of Agreement with MMS, whereby MMS agrees to conduct Clean Water Act preliminary inspections for USEPA.		
All	CWA § 308, 402, 403	Discharge rate limitations and monitoring; toxicity limitations; minimize discharge of surfactants, dispersants, and detergents; no rubbish, trash, or refuse; and no discharge in areas of biological concern
All	40 CFR 144	Underground injection control program rules



Table 3-40

Gulf of Mexico Region Counties with Concentrated Levels  
of Oil- and Gas-Related Infrastructure

Low Concentration		Medium Concentration		High Concentration	
County/Parish	State	County/Parish	State	County/Parish	State
Escambia	FL	Bay	FL	Mobile	AL
Manatee	FL	Hillsborough	FL	Cameron	LA
Ascension	LA	Calcasieu	LA	Jefferson	LA
Lafayette	LA	East Baton Rouge	LA	Lafourche	LA
St. John the Baptist	LA	Iberia	LA	Plaquemines	LA
West Baton Rouge	LA	Orleans	LA	St. Mary	LA
Harrison	MS	St. Bernard	LA	Brazoria	TX
Aransas	TX	St. Charles	LA	Galveston	TX
Cameron	TX	St. James	LA	Harris	TX
Chambers	TX	Terrebonne	LA	Jefferson	TX
Fort Bend	TX	Vermilion	LA		
Matagorda	TX	Jackson	MS		
Montgomery	TX	Calhoun	TX		
Orange	TX	Nueces	TX		
		San Patricio	TX		

Source: Based on data from The Louis Berger Group, Inc. (2004).

Table 3-41

## Baseline Employment Projections (in thousands) by Economic Impact Area

Model Year	Calendar Year	AL-1	MS-1	LA-1	LA-2	LA-3	LA-4	TX-1	TX-2	TX-3	FL-1	FL-2	FL-3	FL-4
	2005	355.46	251.51	175.16	295.02	606.81	820.99	716.70	289.19	3,186.72	473.65	317.83	1,918.08	3,286.87
	2006	380.45	248.27	179.08	307.30	668.71	591.35	730.94	294.37	3,272.69	488.53	323.52	1,958.06	3,354.95
1	2007	385.13	252.58	181.26	311.44	675.32	610.34	745.17	299.12	3,333.08	500.29	329.19	1,997.55	3,422.26
2	2008	389.81	256.89	183.44	315.57	681.90	629.42	759.41	303.86	3,393.48	512.06	334.84	2,037.04	3,489.59
3	2009	394.47	261.20	185.63	319.69	688.47	648.58	773.64	308.58	3,453.88	523.82	340.50	2,076.54	3,556.92
4	2010	399.13	265.51	187.84	323.81	695.02	667.82	787.88	313.30	3,514.28	535.58	346.13	2,116.02	3,624.25
5	2011	403.74	269.84	190.06	327.91	701.48	687.42	802.11	318.00	3,574.69	547.32	351.75	2,155.52	3,691.61
6	2012	408.40	274.23	192.30	332.06	708.00	707.60	816.60	322.78	3,636.13	559.31	357.47	2,195.74	3,760.22
7	2013	413.12	278.70	194.58	336.27	714.58	728.36	831.35	327.62	3,698.63	571.58	363.28	2,236.72	3,830.10
8	2014	417.90	283.25	196.87	340.53	721.22	749.74	846.37	332.54	3,762.21	584.11	369.18	2,278.47	3,901.29
9	2015	422.18	287.15	198.94	344.32	727.31	765.82	859.04	336.81	3,816.31	594.28	374.26	2,313.48	3,961.04
10	2016	426.74	291.50	201.20	348.39	733.67	785.86	873.28	341.48	3,876.75	606.01	379.86	2,352.98	4,028.43
11	2017	431.34	295.92	203.48	352.52	740.09	806.42	887.75	346.20	3,938.15	617.96	385.55	2,393.15	4,096.97
12	2018	436.00	300.41	205.79	356.69	746.56	827.52	902.46	351.00	4,000.51	630.16	391.33	2,434.00	4,166.68
13	2019	440.70	304.97	208.13	360.91	753.09	849.17	917.42	355.86	4,063.87	642.59	397.19	2,475.56	4,237.57
14	2020	444.96	308.92	210.23	364.70	759.12	866.01	930.22	360.13	4,118.50	652.91	402.29	2,510.96	4,298.01
15	2021	449.47	313.29	212.54	368.76	765.39	886.43	944.46	364.76	4,179.00	664.63	407.88	2,550.45	4,365.43
16	2022	454.03	317.73	214.86	372.86	771.72	907.34	958.91	369.44	4,240.39	676.55	413.55	2,590.57	4,433.91
17	2023	458.63	322.23	217.22	377.02	778.10	928.74	973.58	374.18	4,302.68	688.69	419.30	2,631.32	4,503.47
18	2024	463.27	326.79	219.60	381.21	784.53	950.64	988.48	378.99	4,365.88	701.05	425.14	2,672.70	4,574.12
19	2025	467.51	330.79	221.75	385.00	790.49	968.13	1,001.40	383.25	4,421.00	711.49	430.26	2,708.43	4,635.13
20	2026	471.97	335.18	224.10	389.04	796.71	988.88	1,015.63	387.83	4,481.59	723.20	435.84	2,747.93	4,702.58
21	2027	476.48	339.63	226.47	393.13	802.98	1,010.07	1,030.07	392.47	4,543.01	735.10	441.50	2,788.00	4,771.01
22	2028	481.04	344.13	228.87	397.26	809.29	1,031.72	1,044.71	397.16	4,605.27	747.19	447.22	2,828.65	4,840.44
23	2029	485.64	348.70	231.30	401.43	815.66	1,053.83	1,059.56	401.90	4,668.39	759.49	453.03	2,869.90	4,910.87
24	2030	489.85	352.74	233.49	405.22	821.58	1,071.88	1,072.57	406.15	4,723.95	770.03	458.17	2,905.91	4,972.38
25	2031	494.53	357.42	235.97	409.48	828.04	1,094.85	1,087.81	411.00	4,788.69	782.70	464.11	2,948.28	5,044.73
26	2032	499.26	362.16	238.47	413.78	834.56	1,118.31	1,103.27	415.92	4,854.32	795.58	470.13	2,991.28	5,118.14
27	2033	504.03	366.97	240.99	418.12	841.12	1,142.28	1,118.96	420.89	4,920.85	808.68	476.23	3,034.90	5,192.62
28	2034	508.85	371.84	243.55	422.51	847.74	1,166.76	1,134.86	425.92	4,988.29	821.99	482.41	3,079.15	5,268.19
29	2035	513.71	376.77	246.12	426.95	854.40	1,191.77	1,150.99	431.01	5,056.66	835.51	488.67	3,124.05	5,344.85
30	2036	518.62	381.77	248.73	431.44	861.13	1,217.31	1,167.35	436.16	5,125.96	849.26	495.01	3,169.61	5,422.63
31	2037	523.58	386.84	251.37	435.97	867.90	1,243.40	1,183.94	441.37	5,196.21	863.24	501.43	3,215.83	5,501.53
32	2038	528.58	391.97	254.03	440.55	874.72	1,270.05	1,200.77	446.65	5,267.43	877.45	507.94	3,262.72	5,581.59
33	2039	533.64	397.17	256.72	445.17	881.60	1,297.27	1,217.84	451.98	5,339.62	891.89	514.53	3,310.30	5,662.81
34	2040	538.74	402.44	259.44	449.85	888.54	1,325.07	1,235.15	457.39	5,412.80	906.56	521.20	3,358.58	5,745.22
35	2041	543.89	407.78	262.19	454.57	895.53	1,353.47	1,252.71	462.85	5,486.98	921.48	527.96	3,407.55	5,828.82
36	2042	549.08	413.19	264.96	459.35	902.57	1,382.48	1,270.51	468.38	5,562.18	936.65	534.81	3,457.24	5,913.64
37	2043	554.33	418.68	267.77	464.17	909.67	1,412.11	1,288.57	473.98	5,638.41	952.06	541.75	3,507.66	5,999.70
38	2044	559.63	424.23	270.61	469.05	916.83	1,442.37	1,306.89	479.65	5,715.69	967.73	548.78	3,558.81	6,087.00
39	2045	564.98	429.86	273.47	473.98	924.04	1,473.29	1,325.46	485.38	5,794.02	983.66	555.90	3,610.70	6,175.58
40	2046	570.38	435.57	276.37	478.95	931.30	1,504.86	1,344.30	491.18	5,873.43	999.85	563.11	3,663.35	6,265.45

Notes: Actual Woods & Poole data for 2006 through 2010, 2015, 2020, 2025, and 2030.  
Missing estimates through 2030 calculated using average annual growth rate for the 5-year period; projections after 2030 calculated using the average annual growth rate from 2025 to 2030.

Source: Woods & Poole Economics, Inc., 2006.

Table 4-1

## Projected Oil and Gas Production in the Gulf of Mexico OCS

	Proposed Action	OCS Program (2007-2046)
Western Gulf of Mexico		
Reserve/Resource Production		
Oil (BBO)	0.242-0.423	6.629-8.060
Gas (Tcf)	1.644-2,647	52.211-59.961
Central Gulf of Mexico		
Reserve/Resource Production		
Oil (BBO)	0.776-1.292	21.933-24.510
Gas (Tcf)	3.236-5.229	90.155-102.761

BBO = billion barrels of oil.

Tcf = trillion cubic feet.

Table 4-2

## Offshore Scenario Information Related to the Proposed Action in the Western Planning Area

	Offshore Subareas*							Total WPA**
	W0-60	W60-200	W200-400	W400-800	W800-1600	W1600-2400	W>2400	
Wells Drilled								
Exploration and Delineation Wells	23-36	5-7	1	3-4	5-10	2-3	3-5	42-66
Development Wells	64-89	13-15	6-7	9-13	48-75	9-15	6-8	155-221
Oil Wells	3-5	2-2	1-2	6-8	29-45	6-9	3-5	51-76
Gas Wells	61-84	10-13	5-5	3-5	20-30	3-6	2-3	105-146
Workovers and Other Well Activities	392-539	77-91	35-42	56-77	294-455	56-91	35-49	945-1,344
Production Structures								
Installed	21-31	2	1	1	1-3	1-2	1	28-41
Removed Using Explosives	9-15	1	0	0	0	0	0	11-17
Total Removed	13-22	2	1	1	1-3	1	1	20-31
Method of Oil Transportation***								
Percent Piped	99%	100%	100%	100%	0% -50%	0% -100%	0 -100%	41% -> 99%
Percent Barged	1%	0%	0%	0%	0%	0%	0%	< 1%
Percent Tankered	0%	0%	0%	0%	0% -50%	0% -100%	0% -100%	0% -59%
Length of Installed Pipelines (km)#	60-420	NA	NA	NA	NA	NA	NA	130-760
Blowouts	1	0	0	0	0-1	0	0	1-2
Service-Vessel Trips (1,000 round trips)	23-33	3	1	16-17	18-51	16-33	16-17	94-155
Helicopter Operations (1,000 operations)	300-680	30-44	14-22	14-22	14-66	14-44	14-22	400-900

\*See Figure 4-1.

\*\* Subarea totals may not add up to the planning area total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-3

Offshore Scenario Information Related to the Proposed Action in the Central Planning Area

	Offshore Subareas*								Total CPA**
	C0-60 (western)	C0-60 (eastern)	C60-200	C200-400	C400-800	C800-1600	C1600-2400	C>2400	
Wells Drilled									
Exploration and Delineation Wells	14 - 16	3	9 - 12	7 - 11	9 - 14	10 - 18	7 - 12	6 - 10	65 - 96
Development Wells	51 - 59	9 - 10	22 - 26	75 - 107	61 - 83	56 - 91	37 - 59	20 - 33	330 - 468
Oil Wells	13 - 15	2 - 2	7 - 8	43 - 61	36 - 49	33 - 54	22 - 36	12 - 20	168 - 245
Gas Wells	38 - 44	7 - 8	15 - 18	32 - 46	25 - 33	23 - 37	15 - 23	8 - 14	162 - 223
Workovers and Other Well Activities	309 - 357	55 - 63	133 - 161	455 - 651	371 - 504	343 - 553	224 - 357	119 - 203	2,009 - 2,849
Production Structures									
Installed	17 - 18	3	2 - 3	1 - 3	1 - 3	1 - 4	1 - 3	2	28 - 39
Removed Using Explosives	10	2	2	0 - 1	0 - 1	0	0	0	14 - 16
Total Removed	14	2 - 3	2 - 3	1 - 3	1 - 3	1 - 4	1 - 3	2	24 - 35
Method of Oil Transportation***									
Percent Piped	99%	99%	100%	100%	100%	0% - 50%	0% - 100%	0% - 100%	57% - >99%
Percent Barged	1%	1%	0%	0%	0%	0%	0%	0%	<1%
Percent Tankered	0%	0%	0%	0%	0%	0% - 50%	0% - 100%	0% - 100%	0% - 43%
Length of Installed Pipelines (km)#	40 - 720	10 - 130	NA	NA	NA	NA	NA	NA	130 - 1,700
Blowouts	0	0	0	0	0 - 1	0 - 1	0	00	2 - 3
Service-Vessel Trips (1,000 round trips)	18 - 19	3	3 - 4	4 - 7	19 - 52	19 - 68	18 - 51	33 - 34	117 - 239
Helicopter Operations (1,000 operations)	607 - 1,016	107 - 169	71 - 169	36 - 169	36 - 169	36 - 226	36 - 169	71 - 113	1,000 - 2,200

\* See Figure 4-1.

\*\* Subarea totals may not add up to the planning area total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-4

Offshore Scenario Information Related to OCS Program Activities  
in the Gulf of Mexico for the Years 2007-2046

	Water Depths*							Total OCS**
	0-60	60-200	200-400	400-800	800-1600	1600-2400	>2400	
Wells Drilled								
Exploration and Delineation Wells	3,312 - 4,013	1,928 - 2,508	222 - 297	347 - 460	624 - 853	470 - 661	432 - 641	7,335 - 9,433
Development Wells	9,654 - 10,174	4,946 - 5,521	1,470 - 1,553	1,960 - 2,065	5,946 - 6,885	5,688 - 7,300	1,680 - 2,408	31,342 - 35,905
Oil Wells	1,667 - 1,722	1,450 - 1,581	728 - 761	1,248 - 1,306	3,813 - 4,387	3,904 - 4,908	1,042 - 1,482	13,850 - 16,148
Gas Wells	7,986 - 8,451	3,496 - 3,940	742 - 792	712 - 759	2,133 - 2,498	1,784 - 2,392	638 - 926	17,492 - 19,757
Workovers and Other Well Activities	58,765 - 61,930	30,107 - 33,607	8,946 - 9,450	11,928 - 12,565	36,190 - 41,909	34,615 - 44,436	10,227 - 14,658	190,778 - 218,555
Production Structures								
Installed	2,465 - 2,608	314 - 383	16 - 19	23 - 25	73 - 103	46 - 90	21 - 34	2,958 - 3,262
Removed Using Explosives	4,111 - 4,149	109 - 118	2 - 4	1	0	0	0	4,225 - 4,270
Total Removed	5,097 - 5,137	693 - 714	22 - 26	38 - 17	87 - 107	46 - 70	14 - 26	5,997 - 6,097
Method of Oil Transportation***								
Percent Piped	99%	100%	100%	100%	91% - 100%	95% - 100%	90% - 100%	94% - >99%
Percent Barged	1%	0%	0%	0%	0%	0%	0%	<1%
Percent Tankered	0%	0%	0%	0%	0% - 9%	0% - 5%	0% - 10%	0% - 6%
Length of Installed Pipelines (km)#	5,320 - 31,690	NA	NA	NA	NA	NA	NA	9,470 - 66,550
Blowouts	78 - 85	41 - 48	10 - 11	14 - 15	39 - 46	37 - 48	13 - 18	232 - 272
Service-Vessel Trips (1,000 trips)	2,781 - 2,965	570 - 683	82 - 91	459 - 501	1,425 - 1,951	976 - 1,750	421 - 667	6,714 - 8,608
Helicopter Trips (1,000 trips)	31,633 - 47,929	4,047 - 7,055	206 - 350	296 - 461	954 - 1,917	592 - 1,664	269 - 624	38,000 - 60,000

\* See Figure 4-1.

\*\* Water depth totals may not add up to the OCS total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-5

Offshore Scenario Information Related to OCS Program Activities  
in the Western Planning Area for the Years 2007-2046

	Offshore Subareas*							Total WPA**
	W0-60	W60-200	W200-400	W400-800	W800-1600	W1600-2400	W>2400	
Wells Drilled								
Exploration and Delineation Wells	888 - 1,097	787 - 858	64 - 83	120 - 155	203 - 276	130 - 197	133 - 198	2,325 - 2,864
Development Wells	2,652 - 2,826	1,370 - 1,547	269 - 290	301 - 337	2,145 - 2,490	933 - 1,505	491 - 668	8,160 - 9,662
Oil Wells	135 - 140	205 - 230	74 - 78	177 - 198	1,247 - 1,455	549 - 890	329 - 439	2,716 - 3,430
Gas Wells	2,517 - 2,685	1,165 - 1,317	196 - 212	124 - 139	898 - 1,035	384 - 615	162 - 229	5,446 - 6,232
Workovers and Other Well Activities	16,142 - 17,199	8,337 - 9,415	1,638 - 1,764	1,834 - 2,051	13,055 - 15,155	5,677 - 9,163	2,989 - 4,067	49,672 - 58,814
Production Structures								
Installed	666 - 710	99 - 115	5 - 6	7 - 8	34 - 43	14 - 31	5 - 9	830 - 922
Removed Using Explosives	632 - 661	104 - 112	1	1	0	0	0	738 - 775
Total Removed	864 - 904	149 - 160	4 - 5	8 - 10	34 - 43	8 - 18	5 - 8	1,072 - 1,148
Method of Oil Transportation***								
Percent Piped	99%	100%	100%	100%	88% - 100%	94% - 100%	83% - 100%	92 - >99%
Percent Barged	1%	0%	0%	0%	0%	0%	0%	<1%
Percent Tankered	0%	0%	0%	0%	0% - 12%	0% - 6%	0% - 17%	0% - 8%
Length of Installed Pipelines (km)#	2,340 - 9,580	NA	NA	NA	NA	NA	NA	5,050 - 22,960
Blowouts	21 - 24	13 - 14	2	3	14 - 17	6 - 10	4 - 5	63 - 75
Service-Vessel Trips (1,000 round trips)	753 - 810	181 - 206	18 - 21	129 - 148	635 - 796	266 - 563	105 - 179	2,087 - 2,722
Helicopter Operations (1,000 operations)	9,147 - 13,861	1,360 - 2,245	69 - 117	96 - 156	467 - 840	192 - 605	69 - 176	11,400 - 18,000

\* See Figure 4-1.

\*\* Subarea totals may not add up to the planning area total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-6

**Offshore Scenario Information Related to OCS Program Activities  
in the Central Planning Area for the Years 2007-2046**

	Offshore Subareas*								Total CPA**
	C0 - 60 (western)	C0 - 60 (eastern)	C60 - 200	C200 - 400	C400 - 800	C800 - 1600	C1600 - 2400	C>2400	
Wells Drilled									
Exploration and Delineation Wells	2,060 - 2,479	364 - 437	1,141 - 1,650	158 - 214	227 - 305	421 - 577	340 - 464	299 - 443	5,010 - 6,569
Development Wells	5,952 - 6,246	1,050 - 1,102	3,577 - 3,974	1,200 - 1,263	1,658 - 1,727	3,801 - 4,395	4,754 - 5,795	1,189 - 1,740	23,181 - 26,243
Oil Wells	1,303 - 1,345	230 - 237	1,245 - 1,351	654 - 683	1,071 - 1,108	2,566 - 2,932	3,355 - 4,018	713 - 1,043	11,137 - 12,718
Gas Wells	4,649 - 4,901	820 - 865	2,331 - 2,623	546 - 580	588 - 620	1,235 - 1,463	1,400 - 1,777	476 - 697	12,045 - 13,526
Workovers and Other Well Activities	36,230 - 38,021	6,393 - 6,710	21,770 - 24,192	7,308 - 7,686	10,094 - 10,514	23,135 - 26,754	28,938 - 35,273	7,238 - 10,591	141,106 - 159,741
Production Structures									
Installed	1,529 - 1,613	270 - 285	215 - 268	11 - 13	16 - 17	39 - 60	32 - 59	16 - 25	2,128 - 2,340
Removed Using Explosives	3,091 - 3,092	388 - 396	5 - 6	1 - 3	0	0	0	0	3,487 - 3,495
Total Removed	3,598 - 3,598	635 - 635	544 - 554	18 - 21	7 - 30	53 - 64	38 - 52	9 - 18	4,925 - 4,949
Method of Oil Transportation***									
Percent Piped	99%	99%	100%	100%	100%	92% - 100%	95% - 100%	93% - 100%	95% - >99%
Percent Barged	1%	1%	0%	0%	0%	0%	0%	0%	<1%
Percent Tankered	0%	0%	0%	0%	0%	0% - 8%	0% - 5%	0% - 7%	0% - 5%
Length of Installed Pipelines (km)#	2,530 - 18,790	450 - 3,320	NA	NA	NA	NA	NA	NA	4,420 - 43,590
Blowouts	48 - 52	8 - 9	28 - 34	8 - 9	11 - 12	25 - 30	31 - 38	9 - 13	169 - 197
Service-Vessel Trips (1,000 round trips)	1,724 - 1,832	304 - 324	389 - 477	64 - 71	330 - 353	790 - 1,155	711 - 1,188	316 - 488	4,627 - 5,887
Helicopter Operations (1,000 operations)	19,112 - 28,952	3,374 - 5,115	2,688 - 4,810	138 - 233	200 - 305	488 - 1,077	400 - 1,059	200 - 449	26,600 - 42,000

\* See Figure 4-1.

\*\* Subarea totals may not add up to the planning area total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.



Table 4-7

## Annual Volume of Produced Water Discharged by Depth (MMbbl)

Year	Water Depth							Total
	0-60 m	60-200 m	200-400 m	400-800 m	800-1600 m	1600-2400 m	>2400 m	
1996	397	129	10	10	no discharge	no discharge	no discharge	546
1997	415	129	10	8	no discharge	no discharge	no discharge	561
1998	451	146	12	11	no discharge	no discharge	no discharge	621
1999	466	152	14	12	0.01	no discharge	no discharge	644
2000	460	159	14	14	1	no discharge	no discharge	647
2001	502	153	12	17	2	no discharge	no discharge	686
2002	428	150	19	20	1	0.01	no discharge	617
2003	429	152	18	20	4	3	no discharge	626
2004	407	129	17	20	9	1	0.01	583
2005	296	85	12	19	15	4	0.04	431

Source: USDO, MMS, 2006b.

Table 4-8

Average Annual Emission Rates  
from OCS Infrastructures in the Gulf of Mexico

Infrastructure	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
Platforms (tons/platform/year)	44.1	52.1	2.0	20.7	0.45	0.45
Exploration Well (tons/well)	40.5	4.3	6.8	0.4	1.0	1.0
Development Well (tons/well) <sup>1</sup>	21.5	5.7	2.5	2.1	0.60	0.60

<sup>1</sup> Assumes a 3,050-m hole, a 35-day drilling period in less than 400-m water depth, a 60-day drilling period in greater than 400-m water depth, and a power consumption of 180 horsepower hour/foot.

Source: USDO, MMS, 1994.

Table 4-9

Projected New Coastal Infrastructure Related to OCS Activities in  
the Gulf of Mexico from the Years 2007-2046

Infrastructure	Texas	Louisiana	Mississippi and Alabama	Florida	OCS Program Total
Pipeline Landfalls	6-8	25-36	1-3	0	32-47
Service Bases	0	0	0	0	0
Helicopter Hubs	0	0	0	0	0
Platform Yards	0	0	0	0	0
Shipyards	0	0	0	0	0
Pipecoating Plants	0	0	0	0	0
Refineries	0	0	0	0	0
Petrochemical Plants	0	0	0	0	0
Gas Processing Plants	2	3	9	0	14
Pipeline Shore Facilities	1-2	3-5	0-1	0	4-6
Barge Terminals	0	0	0	0	0
Tanker Ports	0	0	0	0	0
Waste Disposal Plants	0	0	0	0	0

Table 4-10

LNG Proposed or Licensed Projects (Deepwater Ports) in the Gulf of Mexico

Project Name	Affiliations	Proposed Location (Area and Block)	Proposed Capacity* (Cf/d)	USDOT Docket Number
Gulf Gateway (formerly Energy Bridge)	Excelebrate Energy	West Cameron 603	690 million	14294
Gulf Landing	Shell US Gas & Power	West Cameron 213	1.2 billion	16860
Main Pass Energy Hub	Freeport McMoRan Energy	Main Pass 299	1.6 billion	17696
Beacon Port	ConocoPhillips	High Island A27	1.8 billion	21232
Bienville Offshore Energy Terminal	TORP Terminal LP	Main Pass 258	1.4 billion	24644

\* Peak capacity estimates.  
Cf/d = cubic feet per day.

Table 4-11  
Average Annual Inputs (1990-1999)  
of Petroleum Hydrocarbons to Coastal Waters of the Gulf of Mexico

	Western GOM		Eastern GOM	
	(tonnes)	(bbl)	(tonnes)	(bbl)
Extraction of Petroleum				
Platforms Spills	90	630	trace <sup>1</sup>	trace
Atmospheric Releases (VOC's)	trace	trace	trace	trace
Permitted Produced-Water Discharges	590	4,130	trace	trace
Sum of Extraction Inputs	680	4,760	trace	trace
Transportation of Petroleum				
Pipelines Spills	890	6,230	trace	trace
Tank Vessel Spills	770	5,390	140	980
Coastal Facilities Spills <sup>2</sup>	740	5,180	10	70
Atmospheric Releases (VOC's) <sup>3</sup>	trace	trace	trace	trace
Sum of Transportation Inputs <sup>4</sup>	2,400	16,800	160	1,120
Consumption of Petroleum				
Land-based Sources <sup>5</sup>	11,000	77,000	1,600	11,200
Recreational Vessels	770	5,390	770	5,390
Vessel >100 GT (spills) <sup>6</sup>	100	700	30	210
Vessel >100 GT (operational discharges)	trace	trace	trace	trace
Vessel <100 GT (operational discharges)	trace	trace	trace	trace
Deposition of Atmospheric Releases (VOC's)	90	630	60	420
Aircraft Jettison of Fuel	NA <sup>7</sup>	NA	NA	NA
Sum of Consumption	12,000	84,000	2,500	17,500

## Notes:

<sup>1</sup>Trace indicates less than 70 bbl (10 tonnes).

<sup>2</sup>Coastal facility spills does not include spills in coastal waters related to exploration and production spills or spills from vessels. The category "Coastal Facilities" includes the following: aircraft, airport, refined product in coastal pipeline, industrial facilities, marinas, marine terminals, military facilities, municipal facilities, reception facilities, refineries, shipyards, and storage tanks.

<sup>3</sup>Volatization of light hydrocarbons during tank vessel loading, washing, and voyage.

<sup>4</sup>Sums may not match.

<sup>5</sup>Inputs from land-based sources during consumption of petroleum are the sum of diverse sources. Three categories of wastewater discharge are summed: municipal, industrial (not related to petroleum refining), and petroleum refinery wastewater. Urban runoff is included. It results from oil droplets from vehicles washing into waterways from parking lots and roads and the improper disposal of oil containing consumer products.

<sup>6</sup>GT – Gross tons.

<sup>7</sup>NA – not available.

Source: NRC, 2003.

Table 4-12  
Average Annual Inputs (1990-1999)  
of Petroleum Hydrocarbons to Offshore Waters of the Gulf of Mexico

	Western GOM		Eastern GOM	
	(tonnes)	(bbl)	(tonnes)	(bbl)
Natural Sources				
Seeps	70,000	490,000	70,000	490,000
Extraction of Petroleum				
Platforms	50	350	trace <sup>1</sup>	trace
Atmospheric Releases (VOC's)	60	420	trace	trace
Permitted Produced-Water Discharges	1,700	11,900	trace	trace
Sum of Extraction	1,800	12,600	trace	trace
Transportation of Petroleum				
Pipelines	60	420	trace	trace
Tank Vessels	1,500	10,500	10	70
Atmospheric Releases (VOC's)	trace	trace	trace	trace
Sum of Transportation	1,600	11,200	10	70
Consumption of Petroleum				
Land-based Consumption <sup>2</sup>	NA	NA	NA	NA
Recreational Vessel Consumption <sup>3</sup>	NA	NA	NA	NA
Vessel >100 GT <sup>4</sup> (spill)	120	840	70	490
Vessel >100 GT (operational discharges)	25	175	trace	trace
Vessel <100 GT (operational discharges)	trace	trace	trace	trace
Deposition of Atmospheric Releases (VOC's)	1,200	8,400	1,600	11,200
Aircraft Jettison of Fuel	80	560	80	560
Sum of Consumption <sup>5</sup>	1,400	9,800	1,800	12,600

## Notes:

<sup>1</sup>Trace indicates less than 70 bbl (10 tonnes).

<sup>2</sup>Limited to coastal zone.

<sup>3</sup>Limited to within 3 mi of the coast.

<sup>4</sup>GT – Gross tons.

<sup>5</sup>Sums may not match.

VOC = volatile organic compounds.

Source: NRC, 2003.

Table 4-13

Annual Oil-Spill Occurrence within Coastal and Offshore Waters  
of the Gulf of Mexico (Gulfwide Estimates)

Source	Number of Spills ≥1,000 bbl	Assumed Size (bbl)	Source	Number of Spills <1,000 bbl	Assumed Size (bbl)
<b>Offshore Spills</b>			<b>Offshore Spills</b>		
Total All Sources	1 per year		Total All Sources	1,500-1,800 per year	5
Total Non-OCS Sources			Non-OCS Sources	1,000-1,300 per year	5
Tank Ship	<1 per year	14,600	Tank Ship	5-10 per year	5
Tank Barge	<1 per year	3,000	Tank Barge	2-5 per year	5
Total OCS Program Sources			Unknown and Other	1,000-1,200 per year	5
Facility	<1 per year	1,500	Total OCS Program Sources (MODU, platform, pipeline)	450-500 per year	5
Pipeline	1 per year	4,600			
Shuttle Tanker	1 in next 40 years	14,600			
<b>Coastal Spills</b>			<b>Coastal Spills</b>		
Total All Sources	1 per year		Total All Sources	440-650 per year	5
Non-OCS Sources	3 per 6 years		Non-OCS Sources	400-600 per year	
Tank Ship	1 per 6 years	4,500	Tank Ship	2 per year	5
Tank Barge	1 per 6 years	3,000	Tank Barge	1 per year	5
Other	1 per 6 years	4,200	Unknown and Other	400-600 per year	5
Total OCS Sources	1 per 6 years	4,200	Total OCS Sources	40-50 per year	5

Note: The estimated number of offshore OCS Program spills ≥1,000 bbl was determined using 40-year program resource projections (2007-2042) and Anderson and LaBelle (2000) spill rates (Table 4-15). For offshore non-OCS spills ≥1,000 bbl, coastal OCS and non-OCS spills ≥1,000, and all sources of spills <1,000 bbl, the historical number of spills per year is presented (Dickey, 2006). The assumed size of spills ≥1,000 bbl was obtained from Anderson and LaBelle (2000), and the assumed size of spills <1,000 bbl is the median size of all spills 1-999 bbl (1996-2001).

Table 4-14

## OCS and Non-OCS Program Spill Rates

OCS Program Spill Rates	
<1,000 bbl	
≤1 bbl	3,357 spills/BBO handled
≥1 and < 50 bbl	91 spills/BBO handled
≥50 bbl and <1,000 bbl	7 spills/BBO handled
≥1,000 bbl	
Facility	0.13 spills/BBO handled
Pipeline	1.38 spills/BBO handled
Shuttle Tanker	0.73 spills/BBO handled
Offshore	0.29 spills/BBO handled
Coastal	0.44 spills/BBO handled
Barge	1.23 spills/BBO handled
Non-OCS Program Spill Rates	
≤1,000 bbl	rate based on yearly occurrence information
≥1,000 bbl	
Import Tanker	0.82 spills/BBO handled
Offshore	0.36 spills/BBO handled
Coastal	0.46 spills/BBO handled
Coastwise Tanker	0.73 spills/BBO handled
Offshore	0.29 spills/BBO handled
Coastal	0.44 spills/BBO handled
Barge	1.23 spills/BBO handled
Pipeline	rate based on yearly occurrence information

BBO = billion barrels of oil.

Table 4-15

Probability of One or More Offshore Spill Events (percent chance) and the Mean Number of Spills Estimated for Two Size Groups ( $\geq 1,000$  bbl and  $\geq 10,000$  bbl) that Could Occur as a Result of an Accident Associated with Either Facility, Pipeline, or Tanker OCS Program Operations

	OCS Facilities		OCS Pipelines		OCS Shuttle Tankers		All OCS Sources	
	Low	High	Low	High	Low	High	Low	High
For Possible Spills Occurring $\geq 1,000$ bbl								
Western Planning Area – OCS Program								
Mean Number of Spills	<1	1	9	10	<1	<1	10	12
Probability of Occurrence (%)	58	65	99+	99+	<0.5	28	99+	99+
Central Planning Area – OCS Program								
Mean Number of Spills	3	3	30	32	<1	1	33	36
Probability of Occurrence (%)	94	96	99+	99+	<0.5	63	99+	99+
Gulfwide OCS Program								
Mean Number of Spills	4	4	39	45	<1	<1	43	49
Probability of Occurrence (%)	98	99	99+	99+	<0.5	<0.5	99+	99+
For Possible Spills Occurring $\geq 10,000$ bbl								
Western Planning Area – OCS Program								
Mean Number of Spills	<1	<1	2	3	<1	<1	3	3
Probability of Occurrence (%)	28	33	90	92	<0.5	11	92	96
Central Planning Area – OCS Program								
Mean Number of Spills	1	1	7	8	<1	<1	9	9
Probability of Occurrence (%)	67	71	99+	99+	<0.5	29	99+	99+
Gulfwide OCS Program								
Mean Number of Spills	1	2	10	11	<1	<1	11	13
Probability of Occurrence (%)	76	80	99+	99+	<0.5	<0.5	99+	99+

Note: The mean number of spills estimated and the probability of occurrence are derived from by application of the historical rate of spills per volume crude oil handled (1985-1999) (Anderson and LaBelle, 2000) to the projected Gulfwide OCS total production over a future 40-year period. The actual number of spills that may occur in the future could vary from the estimated number.

Table 4-16

OCS Offshore Oil Spills<sup>1</sup> (1985-1999)

Spill Size Grouping	Total Number of Spills	Total Volume of Oil Spilled (bbl)	Number of Spills by Source Facility <sup>2</sup> / Pipeline	Spill Rate <sup>3</sup> (spills/BBO)	Average Spill Size (bbl)	Median Spill Size (bbl)
0-1.0 bbl	19,506	1,365	Unavailable	3,357.31	0.07	Unavailable
1.1-9.9 bbl	434	1,302	326/108	74.70	3.0	2.8
10.0-49.9 bbl	94	1,795	66/28	16.18	19.1	17.8
50.0-499.9 bbl	37	4,551	28/9	6.37	123	87
500.0-999.9 bbl	3	2,043	2/1	0.52	681	643
≥1,000 bbl	8	53,730	0/8	0.13/1.38 <sup>4</sup>	6,716	4,551
≥10,000 bbl	2	30,000	0/2	0.05/0.34 <sup>4</sup>	15,000	15,000

<sup>1</sup>Oil spilled includes crude oil, condensate, and refined petroleum products.

<sup>2</sup>Facilities represent spills that have occurred during drilling, development, and production operations.

<sup>3</sup>Spill rate = spills per BBO handled; BBO = 10<sup>9</sup> bbl (from 1985 to 1999 OCS production = 5.81 BBO).

<sup>4</sup>Facility spills rate/pipeline spill rate.

Source: Anderson and LaBelle, 2000.

Table 4-17

## Projected Average Annual OCS Emissions Related to the Proposed Action in the WPA by Source (tons per year)

Activity/Pollutant	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
Support Vessels	388-568	50-73	66-97	5-8	10-14	10-14
Survey Vessels	1-2	0-0.2	0	0	0	0
Pipeline Vessels	135-1,756	14-184	23-295	1-17	3-44	3-44
Helicopters	10-14	41-61	1-2	16-23	1	1
Tanker/Barge Transport	21-42	4-7	4-7	17-34	1	1
Platform Construction	102-163	13-20	17-28	1-2	3-4	3-4
Exploration and Delineation Wells	263-389	28-41	44-66	3-4	7-10	7-10
Platforms	749-1,498	884-1,769	33-67	571-1,143	8-15	8-15
Totals	1,669-4,432	1,034-2,155	189-561	615-1230	33-89	33-89



Table 4-18

Class I  
OCD Modeling Results for a Proposed Action in the Western Planning Area  
and the Corresponding Maximum Allowable Increases

Pollutant Averaging Period	Class I Maximum Allowable Increase*	Class I Modeled Impact**
SO <sub>2</sub>		
Annual	2.0 µg/m <sup>3</sup>	0.00-0.02 µg/m <sup>3</sup>
24-hour	5.0 µg/m <sup>3</sup>	0.14 µg/m <sup>3</sup>
3-hour	25.0 µg/m <sup>3</sup>	0.6-0.7 µg/m <sup>3</sup>
NO <sub>2</sub>		
Annual	2.5 µg/m <sup>3</sup>	0.09-0.12 µg/m <sup>3</sup>
PM <sub>10</sub>		
Annual	4.0 µg/m <sup>3</sup>	0.00-0.01 µg/m <sup>3</sup>
24-hour	8.0 µg/m <sup>3</sup>	0.06 µg/m <sup>3</sup>

\* 30 CFR 250.303.

\*\* Calculated using MMS's Offshore and Coastal Dispersion (OCD) Model.

Source: 40 CFR 51.166, 1996.

Table 4-19

Class II  
OCD Modeling Results for a Proposed Action in the Western Planning Area  
and the Corresponding Maximum Allowable Increases

Pollutant Averaging Period	Class II Maximum Allowable Increase*	Class II Modeled Impact**
SO <sub>2</sub>		
Annual	20.0 µg/m <sup>3</sup>	0.04 µg/m <sup>3</sup>
24-hour	91.0 µg/m <sup>3</sup>	0.5 µg/m <sup>3</sup>
3-hour	512.0 µg/m <sup>3</sup>	1.8-1.9 µg/m <sup>3</sup>
NO <sub>2</sub>		
Annual	25.0 µg/m <sup>3</sup>	0.36-0.42 µg/m <sup>3</sup>
PM <sub>10</sub>		
Annual	17.0 µg/m <sup>3</sup>	0.02 µg/m <sup>3</sup>
24-hour	30.0 µg/m <sup>3</sup>	0.2 µg/m <sup>3</sup>

\* 30 CFR 250.303.

\*\* Calculated using MMS's Offshore and Coastal Dispersion (OCD) Model.

Source: 40 CFR 51.166, 1996.

Table 4-20

Population Projections for a Proposed WPA Lease Sale by Economic Impact Area Over 40 Years

Calendar Year	Model Year	AL-1	MS-1	LA-1	LA-2	LA-3	LA-4	TX-1	TX-2	TX-3	FL-1	FL-2	FL-3	FL-4	Total EIA	
		Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High
2007	1	36 - 51	25 - 36	26 - 38	302 - 436	284 - 402	136 - 194	56 - 81	42 - 63	578 - 815	54 - 75	13 - 19	18 - 26	8 - 11	1,579 - 2,247	
2008	2	104 - 138	78 - 101	72 - 94	825 - 1,113	809 - 1,082	371 - 512	155 - 204	114 - 146	1,669 - 2,279	133 - 186	36 - 49	86 - 101	32 - 38	4,483 - 6,043	
2009	3	192 - 241	140 - 173	127 - 156	1,260 - 1,624	1,432 - 1,809	730 - 913	268 - 335	197 - 239	3,351 - 4,193	173 - 248	81 - 97	142 - 164	94 - 103	8,186 - 10,294	
2010	4	77 - 103	56 - 77	53 - 72	483 - 740	570 - 789	314 - 423	107 - 145	86 - 114	1,364 - 1,866	44 - 72	38 - 48	52 - 70	47 - 54	3,292 - 4,574	
2011	5	99 - 163	73 - 121	68 - 110	652 - 1,085	743 - 1,227	395 - 655	139 - 225	110 - 174	1,760 - 2,940	61 - 105	47 - 76	78 - 118	58 - 93	4,283 - 7,092	
2012	6	47 - 70	39 - 57	37 - 54	415 - 618	372 - 565	150 - 241	80 - 118	64 - 92	698 - 1,121	49 - 74	16 - 24	73 - 105	18 - 25	2,057 - 3,165	
2013	7	70 - 164	60 - 130	56 - 118	622 - 1,266	562 - 1,275	218 - 588	121 - 256	97 - 196	1,055 - 2,791	70 - 133	23 - 65	127 - 227	29 - 80	3,111 - 7,290	
2014	8	85 - 153	72 - 128	67 - 116	744 - 1,350	676 - 1,239	260 - 529	146 - 257	116 - 196	1,271 - 2,542	82 - 145	27 - 55	156 - 260	36 - 64	3,739 - 7,033	
2015	9	68 - 153	60 - 127	56 - 115	620 - 1,222	544 - 1,199	200 - 529	121 - 249	100 - 197	972 - 2,511	60 - 112	22 - 60	140 - 246	32 - 81	2,996 - 6,801	
2016	10	58 - 87	51 - 77	49 - 73	545 - 823	467 - 708	173 - 273	106 - 158	90 - 131	807 - 1,270	53 - 78	19 - 29	114 - 176	27 - 39	2,559 - 3,921	
2017	11	50 - 76	45 - 68	44 - 67	491 - 747	410 - 628	152 - 241	95 - 143	82 - 122	678 - 1,082	48 - 71	17 - 26	94 - 146	23 - 34	2,227 - 3,450	
2018	12	49 - 71	44 - 64	44 - 65	492 - 722	402 - 589	152 - 225	94 - 138	83 - 121	658 - 963	48 - 69	17 - 25	84 - 126	22 - 32	2,190 - 3,210	
2019	13	50 - 75	45 - 68	47 - 70	517 - 782	418 - 629	161 - 244	99 - 149	89 - 133	677 - 1,019	50 - 75	18 - 27	82 - 126	22 - 34	2,275 - 3,430	
2020	14	99 - 146	80 - 121	77 - 117	773 - 1,241	772 - 1,168	359 - 533	165 - 247	138 - 209	1,610 - 2,326	71 - 113	44 - 62	110 - 164	58 - 79	4,356 - 6,525	
2021	15	53 - 148	47 - 123	50 - 120	557 - 1,278	443 - 1,191	173 - 543	107 - 255	97 - 217	711 - 2,360	54 - 117	20 - 64	81 - 163	24 - 80	2,416 - 6,659	
2022	16	53 - 82	47 - 73	51 - 79	564 - 886	445 - 692	175 - 277	109 - 170	99 - 155	715 - 1,113	55 - 86	20 - 32	78 - 122	23 - 35	2,435 - 3,801	
2023	17	52 - 81	46 - 72	51 - 80	561 - 888	439 - 689	175 - 277	109 - 171	100 - 157	706 - 1,108	55 - 86	21 - 33	74 - 117	23 - 35	2,409 - 3,794	
2024	18	51 - 79	44 - 69	50 - 78	552 - 876	429 - 675	172 - 274	107 - 170	99 - 156	693 - 1,089	54 - 85	21 - 33	70 - 111	22 - 33	2,363 - 3,730	
2025	19	47 - 74	41 - 65	47 - 75	526 - 830	400 - 628	159 - 252	102 - 161	95 - 151	621 - 974	52 - 82	19 - 31	64 - 99	20 - 30	2,195 - 3,450	
2026	20	46 - 71	40 - 62	46 - 73	515 - 810	391 - 611	156 - 246	100 - 158	94 - 148	606 - 949	51 - 80	19 - 31	61 - 94	19 - 29	2,145 - 3,363	
2027	21	44 - 69	38 - 60	45 - 71	500 - 787	378 - 591	152 - 240	98 - 154	92 - 145	586 - 921	49 - 78	19 - 30	58 - 89	18 - 28	2,076 - 3,261	
2028	22	42 - 66	36 - 57	43 - 68	476 - 757	358 - 567	144 - 231	94 - 149	88 - 140	556 - 884	47 - 75	18 - 29	54 - 83	17 - 27	1,973 - 3,132	
2029	23	40 - 63	34 - 54	41 - 65	455 - 724	342 - 542	138 - 221	90 - 143	84 - 135	533 - 845	45 - 72	18 - 28	51 - 79	16 - 25	1,888 - 2,996	
2030	24	38 - 59	33 - 51	38 - 61	430 - 681	324 - 511	131 - 208	85 - 135	80 - 127	505 - 797	43 - 68	17 - 27	48 - 73	15 - 24	1,786 - 2,822	
2031	25	35 - 55	30 - 48	36 - 57	399 - 635	301 - 477	122 - 194	80 - 126	74 - 119	471 - 744	40 - 64	16 - 25	44 - 68	14 - 22	1,662 - 2,634	
2032	26	32 - 51	28 - 44	33 - 52	368 - 583	279 - 439	112 - 178	74 - 117	69 - 110	434 - 683	37 - 59	14 - 23	41 - 63	13 - 20	1,534 - 2,422	
2033	27	30 - 47	26 - 41	30 - 48	341 - 537	259 - 406	104 - 164	69 - 108	64 - 101	403 - 632	34 - 54	13 - 21	38 - 58	12 - 19	1,425 - 2,235	
2034	28	28 - 43	24 - 37	28 - 44	314 - 495	239 - 375	95 - 151	64 - 100	59 - 93	372 - 585	32 - 50	12 - 20	35 - 54	11 - 18	1,313 - 2,066	
2035	29	25 - 40	22 - 35	26 - 41	288 - 458	220 - 349	87 - 140	59 - 93	54 - 87	342 - 544	29 - 47	11 - 18	32 - 50	10 - 16	1,206 - 1,918	
2036	30	24 - 37	21 - 32	24 - 37	267 - 421	205 - 321	81 - 128	55 - 86	50 - 80	317 - 501	27 - 43	11 - 17	30 - 46	10 - 15	1,119 - 1,765	
2037	31	22 - 34	19 - 30	22 - 35	247 - 390	190 - 299	75 - 119	51 - 80	47 - 74	295 - 465	25 - 40	10 - 16	28 - 43	9 - 14	1,040 - 1,638	
2038	32	22 - 34	19 - 29	21 - 33	241 - 374	191 - 292	80 - 120	50 - 77	45 - 71	303 - 463	24 - 38	10 - 15	27 - 41	9 - 14	1,043 - 1,601	
2039	33	28 - 40	23 - 33	26 - 37	283 - 410	251 - 350	119 - 160	60 - 86	53 - 77	418 - 575	28 - 41	12 - 17	29 - 42	10 - 14	1,340 - 1,882	
2040	34	22 - 34	18 - 28	21 - 32	228 - 355	195 - 295	83 - 125	48 - 75	43 - 67	309 - 484	23 - 36	9 - 15	25 - 39	8 - 13	1,033 - 1,599	
2041	35	23 - 38	19 - 32	20 - 35	227 - 385	200 - 338	89 - 153	49 - 83	43 - 71	327 - 610	23 - 39	10 - 18	24 - 41	8 - 16	1,061 - 1,860	
2042	36	16 - 28	14 - 25	15 - 27	175 - 309	138 - 247	55 - 106	37 - 66	33 - 57	215 - 452	18 - 31	7 - 14	20 - 36	7 - 14	751 - 1,412	
2043	37	15 - 31	13 - 27	15 - 29	168 - 328	134 - 279	54 - 127	36 - 71	32 - 61	212 - 515	17 - 33	7 - 15	20 - 36	6 - 15	730 - 1,566	
2044	38	15 - 27	13 - 24	14 - 26	161 - 294	129 - 242	54 - 111	34 - 64	30 - 54	209 - 458	16 - 29	7 - 14	19 - 33	6 - 13	708 - 1,389	
2045	39	14 - 28	12 - 24	13 - 26	153 - 294	123 - 253	52 - 117	33 - 64	29 - 54	200 - 476	16 - 30	6 - 14	18 - 32	6 - 13	674 - 1,427	
2046	40	13 - 23	11 - 20	12 - 22	140 - 247	113 - 202	46 - 89	30 - 54	27 - 46	181 - 386	14 - 25	6 - 12	17 - 29	5 - 12	614 - 1,166	

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).









Table 4-25

Projected Average Annual OCS Emissions Related to the Proposed Action in the CPA by Source  
(tons per year)

Activity/Pollutant	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
Support Vessels	388-540	50-70	66-92	5-7	10-13	10-13
Survey Vessels	1	0-0.1	0	0	0	0
Pipeline Vessels	135-1756	14-184	23-295	1-17	3-44	3-44
Helicopters	10-14	41-58	1-2	16-22	1	1
Tanker/Barge Transport	84-137	14-23	14-24	69-111	2-4	2-4
Platform Construction	111-168	14-21	19-29	1-2	3-4	3-4
Exploration and Delineation Wells	263-389	28-41	44-66	3-4	7-10	7-10
Platforms	2,996-4,869	3,538-5,749	133-217	2,286-3,714	30-49	30-49
Totals	3,988-7,874	3,699-6,145	301-723	2,380-3,877	56-125	56-125

Table 4-26

Class I  
OCD Modeling Results for a Proposed Action in the Central Planning Area  
and the Corresponding Maximum Allowable Increases

Pollutant Averaging Period	Class I Maximum Allowable Increase*	Class I Modeled Impact**
SO <sub>2</sub>		
Annual	2.0 µg/m <sup>3</sup>	0.00 - 0.02 µg/m <sup>3</sup>
24-hour	5.0 µg/m <sup>3</sup>	0.14 µg/m <sup>3</sup>
3-hour	25.0 µg/m <sup>3</sup>	0.6 - 0.7 µg/m <sup>3</sup>
NO <sub>2</sub>		
Annual	2.5 µg/m <sup>3</sup>	0.09 - 0.12 µg/m <sup>3</sup>
PM <sub>10</sub>		
Annual	5.0 µg/m <sup>3</sup>	0.00 - 0.01 µg/m <sup>3</sup>
24-hour	10.0 µg/m <sup>3</sup>	0.06 µg/m <sup>3</sup>

\* 30 CFR 250.303.

\*\* Calculated using MMS's Offshore and Coastal Dispersion (OCD) Model.

Source: 40 CFR 51.166, 1996.

Table 4-27

Class II  
OCD Modeling Results for a Proposed Action in the Central Planning Area  
and the Corresponding Maximum Allowable Increases

Pollutant Averaging Period	Class II Maximum Allowable Increase*	Class II Modeled Impact**
SO <sub>2</sub>		
Annual	20.0 µg/m <sup>3</sup>	0.04 µg/m <sup>3</sup>
24-hour	91.0 µg/m <sup>3</sup>	0.5 µg/m <sup>3</sup>
3-hour	512.0 µg/m <sup>3</sup>	1.8 - 1.9 µg/m <sup>3</sup>
NO <sub>2</sub>		
Annual	25.0 µg/m <sup>3</sup>	0.36 - 0.42 µg/m <sup>3</sup>
PM <sub>10</sub>		
Annual	19.0 µg/m <sup>3</sup>	0.02 µg/m <sup>3</sup>
24-hour	37.0 µg/m <sup>3</sup>	0.2 µg/m <sup>3</sup>

\* 30 CFR 250.303.

\*\* Calculated using MMS's Offshore and Coastal Dispersion (OCD) Model.

Source: 40 CFR 51.166, 1996.





Table 4-29

Population Projected from a Proposed CPA Lease Sale as a Percent of Total Population by Economic Impact Area

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4		Total EIA	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2007	1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	2	0.0	0.1	0.0	0.1	0.1	0.1	0.4	0.5	0.2	0.3	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
2009	3	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.5	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2010	4	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	5	0.0	0.1	0.0	0.1	0.1	0.1	0.3	0.8	0.2	0.5	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
2012	6	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2013	7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	8	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2015	9	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016	10	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	11	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	12	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019	13	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2020	14	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2021	15	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2022	16	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	17	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	18	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	19	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2026	20	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2027	21	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2028	22	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2029	23	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2030	24	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2031	25	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2032	26	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2033	27	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2034	28	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2035	29	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2036	30	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2037	31	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2038	32	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2039	33	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2040	34	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2041	35	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2042	36	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2043	37	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2044	38	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2045	39	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2046	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).

Table 4-30a

Low-Case Employment (Direct, Indirect, and Induced) Projections  
for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 1-20)

EIA	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
AL-1	Direct	39	119	96	66	119	41	51	60	46	44	43	45	45	45	46	45	45	44	42	41
	Indirect	8	27	22	16	30	9	11	13	10	9	9	9	9	9	10	10	9	9	9	9
	Induced	5	14	11	8	14	5	6	7	6	6	6	6	6	6	6	6	6	6	6	6
	Total	52	160	130	90	163	55	68	81	62	59	58	60	61	60	61	61	60	59	57	55
FL-1	Direct	30	69	58	30	48	32	41	47	39	38	38	40	40	40	41	42	41	41	40	39
	Indirect	24	48	51	16	24	19	20	23	10	10	10	10	10	10	11	11	11	11	11	11
	Induced	15	34	32	14	22	14	16	19	13	12	12	13	13	13	14	14	14	13	13	13
	Total	69	152	141	60	94	65	77	89	61	59	60	62	63	63	66	66	66	65	64	63
FL-2	Direct	12	41	35	28	49	13	16	18	13	13	13	13	13	14	14	14	14	14	14	
	Indirect	3	10	8	6	12	3	4	4	3	3	3	3	3	3	3	3	3	3	3	
	Induced	4	16	13	11	20	5	6	6	5	5	5	5	5	5	5	5	5	5	5	
	Total	19	67	56	45	81	21	25	28	21	20	20	21	21	21	22	23	23	23	23	
FL-3	Direct	30	81	53	38	69	44	64	76	69	64	61	61	61	61	60	58	56	53	51	
	Indirect	9	25	16	12	21	14	21	25	22	20	19	19	19	19	19	18	17	16	15	
	Induced	14	41	27	20	37	20	29	35	32	29	28	28	28	28	27	26	25	24	23	
	Total	53	147	97	69	127	79	114	135	123	113	109	108	109	107	106	103	98	94	89	
FL-4	Direct	9	44	30	28	53	12	17	21	19	18	17	18	18	18	18	18	17	16	15	
	Indirect	3	16	12	12	22	3	4	5	4	3	3	3	3	3	3	3	3	3	3	
	Induced	4	23	17	16	30	5	7	8	6	6	6	6	6	6	6	6	6	6	6	
	Total	16	83	58	55	106	21	28	34	29	27	27	28	27	28	27	28	27	26	25	
LA-1	Direct	28	79	64	44	76	32	40	47	39	38	38	40	40	40	42	42	42	42	41	
	Indirect	5	15	13	10	17	5	7	8	6	6	6	6	6	6	6	7	7	7	6	
	Induced	9	23	19	13	22	10	12	14	12	12	13	13	13	13	14	14	14	14	13	
	Total	42	117	96	67	115	47	59	69	57	56	56	59	60	59	62	62	62	62	61	
LA-2	Direct	276	699	601	355	594	304	381	448	365	357	358	374	379	379	392	394	392	387	379	
	Indirect	69	189	165	109	186	75	92	107	83	81	81	86	87	86	90	91	92	91	90	
	Induced	132	313	265	160	257	148	186	218	183	179	181	190	192	193	201	203	203	202	199	
	Total	477	1,201	1,031	624	1,038	528	659	773	631	617	621	650	658	657	682	688	687	680	668	
LA-3	Direct	281	824	687	436	781	301	372	439	332	318	314	323	328	324	330	327	322	314	304	
	Indirect	78	247	204	152	272	85	104	122	94	91	90	94	95	94	97	98	98	97	96	
	Induced	104	301	247	169	295	115	144	169	136	132	132	137	139	138	143	143	143	141	138	
	Total	464	1,372	1,137	756	1,348	502	620	730	562	540	536	555	562	556	571	569	563	552	538	
LA-4	Direct	99	315	268	179	322	102	122	144	102	98	96	100	101	99	102	102	102	100		
	Indirect	46	160	133	111	197	50	59	68	50	49	49	53	53	52	55	57	59	59		
	Induced	57	188	157	116	208	60	71	83	61	59	58	62	62	61	64	65	65	65		
	Total	202	663	557	405	728	212	252	295	213	206	204	215	217	213	222	225	226	224		
MS-1	Direct	28	85	68	46	82	32	40	48	38	37	36	38	38	38	39	38	38	37		
	Indirect	5	17	13	9	17	6	8	10	8	8	8	8	8	8	8	8	7	7		
	Induced	7	21	17	11	21	8	10	12	10	9	9	10	10	10	10	10	9	9		
	Total	40	123	98	67	120	45	58	69	56	53	53	55	56	55	56	56	54	53		
TX-1	Direct	43	120	97	63	109	48	60	70	57	55	55	57	57	59	59	59	59	58		
	Indirect	9	29	24	17	30	10	12	15	11	11	11	11	11	11	11	11	12	11		
	Induced	18	49	39	27	45	21	26	30	25	24	24	26	26	27	27	27	27	27		
	Total	71	198	160	107	184	79	98	115	93	90	90	93	94	94	97	98	98	96		
TX-2	Direct	43	112	90	61	102	49	62	73	63	62	63	66	66	67	69	70	71	70		
	Indirect	9	30	24	20	36	10	12	14	11	11	11	12	12	12	13	13	13	14		
	Induced	14	36	29	20	33	16	20	24	21	21	21	22	23	23	24	24	24	24		
	Total	66	177	143	102	171	76	95	111	95	94	95	100	101	101	106	108	108	106		
TX-3	Direct	446	1,564	1,266	874	1,599	477	578	683	481	448	431	441	446	430	439	434	428	418		
	Indirect	175	603	492	368	663	187	224	262	182	173	168	176	177	172	178	181	181	180		
	Induced	262	894	722	514	931	279	336	394	271	255	247	255	258	249	257	257	256	252		
	Total	884	3,061	2,471	1,756	3,193	943	1,139	1,339	935	876	846	872	880	851	874	872	866	850		
Total EIA	Direct	1,364	4,151	3,405	2,247	4,002	1,489	1,844	2,174	1,664	1,588	1,563	1,616	1,635	1,610	1,651	1,644	1,627	1,594		
	Indirect	445	1,416	1,177	857	1,528	478	578	675	493	474	469	490	494	485	505	511	513	509		
	Induced	645	1,953	1,593	1,099	1,935	705	870	1,020	780	750	742	773	781	771	797	801	799	789		
	Total	2,454	7,520	6,176	4,203	7,466	2,672	3,291	3,869	2,938	2,811	2,774	2,879	2,909	2,865	2,953	2,956	2,938	2,891		

Note: Totals may not sum due to rounding.

Source: Employment output from MMS's economic impact model MAG-PLAN.

Table 4-30b

Low-Case Employment (Direct, Indirect, and Induced) Projections  
for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 21-40)

EIA	Type	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total
AL-1	Direct	40	38	36	35	33	31	29	27	25	24	23	28	23	23	27	17	16	16	15	14	1,642
	Indirect	9	8	8	8	7	7	6	6	6	5	5	6	5	5	6	4	4	3	3	3	362
	Induced	5	5	5	5	5	4	4	4	4	4	3	3	4	3	4	2	2	2	2	2	214
	Total	54	52	49	47	45	42	39	37	37	35	32	31	38	31	31	37	23	22	22	21	19
FL-1	Direct	38	37	35	34	32	30	28	27	25	23	22	24	21	20	22	17	16	15	15	14	1,328
	Indirect	11	10	10	10	9	9	8	8	7	7	6	8	6	6	7	5	5	4	4	4	495
	Induced	13	12	12	11	11	10	9	9	8	8	7	8	7	7	8	6	5	5	5	5	488
	Total	61	60	57	55	52	49	46	43	43	40	38	36	40	34	34	36	27	26	25	24	22
FL-2	Direct	14	14	13	13	12	11	11	10	9	9	8	10	8	8	9	6	6	6	6	5	564
	Indirect	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	1	1	1	1	1	129
	Induced	5	5	5	5	5	4	4	4	4	3	3	4	3	3	3	2	2	2	2	2	215
	Total	23	22	21	21	19	18	17	16	15	14	14	16	13	13	13	15	10	10	10	9	9
FL-3	Direct	46	44	41	39	37	34	32	30	28	27	25	27	23	22	23	19	18	18	17	16	1,725
	Indirect	13	13	12	11	11	10	9	9	8	8	7	8	7	7	7	5	5	5	5	5	526
	Induced	21	20	19	18	17	16	15	14	13	12	11	12	11	10	11	9	8	8	8	7	801
	Total	80	76	72	68	64	60	56	53	50	47	44	46	41	39	41	33	32	31	29	28	3,052
FL-4	Direct	14	14	13	12	11	11	10	9	9	8	8	8	7	7	7	6	6	5	5	5	598
	Indirect	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	153
	Induced	6	5	5	5	5	4	4	4	4	3	3	4	3	3	3	2	2	2	2	2	255
	Total	23	22	21	20	18	17	16	15	14	13	13	14	12	12	12	10	9	9	8	8	1,007
LA-1	Direct	39	38	36	35	33	31	29	27	26	24	23	26	22	22	24	17	17	16	15	14	1,409
	Indirect	6	6	6	6	5	5	5	4	4	4	4	5	4	4	4	3	3	3	2	2	239
	Induced	13	13	12	12	11	10	10	9	9	8	8	9	7	7	8	6	6	5	5	5	453
	Total	58	57	55	52	49	46	44	41	38	36	34	40	34	33	37	26	25	24	23	22	2,102
LA-2	Direct	361	351	337	322	304	286	269	252	237	223	211	241	204	199	219	161	153	148	140	133	12,936
	Indirect	87	84	81	78	74	69	65	61	57	54	51	62	51	50	57	39	37	36	34	32	3,200
	Induced	191	186	179	171	162	152	143	134	126	119	112	124	107	103	110	85	81	78	74	70	6,510
	Total	639	622	597	571	540	508	477	448	420	395	375	428	363	353	386	285	271	262	249	235	22,646
LA-3	Direct	285	275	262	250	236	221	208	195	183	172	163	204	166	167	199	125	118	115	109	103	11,707
	Indirect	91	89	85	82	77	73	68	64	60	57	54	69	56	56	67	41	39	38	36	34	3,637
	Induced	131	127	122	116	110	104	97	91	86	81	77	92	76	76	87	58	55	54	51	48	4,939
	Total	507	491	469	448	423	397	373	350	328	309	294	365	298	298	353	224	213	206	196	185	20,283
LA-4	Direct	93	90	86	82	78	73	69	64	60	57	55	81	59	59	75	43	41	40	38	35	4,025
	Indirect	58	57	55	53	50	47	44	42	39	37	35	49	38	38	47	27	26	25	24	22	2,292
	Induced	62	60	58	56	53	50	47	44	41	39	37	55	40	40	51	29	28	27	26	24	2,555
	Total	212	207	199	191	181	170	160	150	141	132	127	184	137	137	172	99	94	92	88	82	8,871
MS-1	Direct	33	32	30	29	27	26	24	23	21	20	19	22	19	18	21	14	14	13	13	12	1,304
	Indirect	6	6	5	5	5	5	4	4	4	4	3	4	3	3	4	3	2	2	2	2	253
	Induced	8	8	8	7	7	7	6	6	5	5	5	6	5	5	5	4	3	3	3	3	327
	Total	48	46	44	42	39	37	35	32	30	29	27	32	27	26	30	21	20	19	18	17	1,884
TX-1	Direct	54	53	51	48	46	43	40	38	36	34	32	37	31	30	34	24	23	22	21	20	2,014
	Indirect	11	10	10	10	9	9	8	8	7	7	6	8	6	6	8	5	5	4	4	4	424
	Induced	25	25	24	23	21	20	19	18	17	16	15	17	14	14	15	11	11	10	10	9	897
	Total	90	88	84	81	76	72	67	63	59	56	53	61	52	51	57	40	38	37	35	33	3,335
TX-2	Direct	66	65	62	60	56	53	50	47	44	41	39	43	37	36	39	30	28	27	26	24	2,271
	Indirect	13	13	13	12	11	11	10	10	9	8	8	10	8	8	9	6	6	6	5	5	487
	Induced	23	22	22	21	20	18	17	16	15	14	14	15	13	13	13	10	10	9	9	9	771
	Total	103	100	96	92	87	82	77	73	68	64	61	68	59	57	62	46	44	42	40	38	3,530
TX-3	Direct	381	368	351	334	316	297	278	262	245	230	220	295	228	228	279	170	162	157	150	141	17,767
	Indirect	171	167	160	153	146	137	128	121	113	106	101	132	105	106	128	78	74	72	68	64	7,425
	Induced	235	228	218	208	197	185	174	163	153	144	138	181	142	142	173	106	101	98	93	87	10,543
	Total	787	762	729	696	659	619	580	546	511	480	459	607	475	475	580	354	336	327	311	292	35,735
Total EIA	Direct	1,465	1,418	1,354	1,292	1,222	1,147	1,077	1,012	948	891	849	1,046	850	840	978	649	617	599	569	536	59,292
	Indirect	482	470	451	432	410	385	362	340	319	300	286	364	293	293	348	219	208	201	191	170	19,623
	Induced	738	717	688	657	622	585	549	516	483	455	433	529	432	425	491	332	315	305	290	273	28,969
	Total	2,684	2,604	2,493	2,382	2,254	2,117	1,987	1,868	1,750	1,646	1,568	1,938	1,574	1,558	1,817	1,200	1,139	1,105	1,050	990	107,883

Note: Totals may not sum due to rounding.

Source: Employment output from MMS's economic impact model MAG-PLAN.

Table 4-31a

High-Case Employment (Direct, Indirect, and Induced) Projections  
for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 1-20)

EIA	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
AL-1	Direct	54	153	136	98	272	125	111	96	67	65	66	70	72	70	70	70	69	66	65	62
	Indirect	12	35	31	24	66	29	25	21	14	14	14	15	15	14	15	15	15	14	14	13
	Induced	7	18	16	11	31	15	13	12	9	8	9	9	10	9	9	9	9	9	9	9
	Total	73	205	182	133	369	168	149	129	90	87	88	94	96	93	94	94	94	94	89	87
FL-1	Direct	42	94	87	52	121	69	70	71	54	54	57	62	63	63	64	65	65	63	62	60
	Indirect	33	66	75	36	82	48	41	41	16	15	16	17	17	16	17	17	17	17	17	17
	Induced	21	46	47	26	63	34	31	31	18	18	19	20	21	20	21	21	21	21	21	20
	Total	95	207	209	114	265	152	142	142	88	87	91	98	101	99	101	103	104	104	100	99
FL-2	Direct	18	52	48	39	107	46	40	32	21	20	20	22	22	20	21	22	23	23	23	
	Indirect	4	12	11	9	25	11	9	7	5	4	4	5	5	5	5	5	5	5	5	
	Induced	6	20	17	15	42	17	15	11	7	7	7	8	8	8	8	8	9	9	9	
	Total	28	84	76	63	174	73	64	50	33	32	32	34	35	33	34	36	36	36	36	
FL-3	Direct	44	113	84	56	140	90	104	113	102	94	94	99	99	95	92	90	87	79	76	
	Indirect	14	36	26	17	44	29	34	37	33	30	30	31	31	30	28	27	26	24	22	
	Induced	21	56	42	29	75	45	50	52	46	43	43	45	45	43	42	41	40	36	35	
	Total	79	205	153	102	259	164	187	202	182	168	167	176	176	168	162	158	153	139	133	
FL-4	Direct	13	52	40	34	106	42	39	30	25	24	26	27	28	28	28	27	26	25	24	
	Indirect	4	18	14	15	47	16	13	8	5	5	5	5	5	5	5	5	5	5		
	Induced	6	27	21	20	63	23	19	13	9	9	10	10	10	10	10	10	10	9		
	Total	23	97	75	69	216	81	72	50	38	38	39	42	43	43	43	42	41	39	37	
LA-1	Direct	41	104	93	69	176	86	79	73	56	56	58	62	64	63	64	65	66	64	63	
	Indirect	7	20	18	15	39	17	15	13	9	9	9	10	10	10	10	10	10	10	10	
	Induced	12	31	27	20	49	25	24	22	18	18	19	20	21	21	21	22	22	21	21	
	Total	61	155	138	103	264	129	118	108	84	83	86	93	95	93	95	97	98	95	94	
LA-2	Direct	404	961	886	651	1,635	831	751	727	554	540	553	595	610	590	604	611	614	594		
	Indirect	103	254	237	186	478	228	199	181	129	125	127	137	141	134	139	142	144	141		
	Induced	193	435	398	280	656	360	343	343	273	269	278	301	308	301	310	316	319	311		
	Total	700	1,650	1,521	1,117	2,769	1,419	1,293	1,250	956	934	958	1,033	1,058	1,026	1,053	1,069	1,076	1,046		
LA-3	Direct	399	1,080	978	704	1,921	901	795	714	494	474	480	513	523	503	506	505	501	477		
	Indirect	114	318	285	224	610	273	239	202	141	136	139	150	153	147	151	153	154	150		
	Induced	151	395	354	260	682	328	298	269	201	196	202	217	222	216	220	222	223	216		
	Total	663	1,792	1,617	1,188	3,213	1,502	1,332	1,185	836	806	821	880	898	866	877	880	878	842		
LA-4	Direct	145	408	374	289	802	356	301	257	167	156	152	163	167	155	158	159	159	153		
	Indirect	70	202	182	157	425	181	154	121	81	78	78	85	88	82	87	90	93	92		
	Induced	85	240	218	174	474	209	180	149	99	94	93	100	103	96	99	102	103	101		
	Total	300	850	774	619	1,701	746	635	526	347	328	324	349	358	333	344	351	355	347		
MS-1	Direct	40	111	97	71	195	91	83	74	55	53	55	59	60	59	59	59	58	56		
	Indirect	7	22	19	15	43	19	17	15	11	11	11	12	12	12	12	12	11	11		
	Induced	10	27	24	17	48	22	20	18	14	13	14	15	15	15	15	15	15	14		
	Total	57	160	140	103	285	132	120	108	80	78	80	86	88	86	86	86	85	80		
TX-1	Direct	62	158	141	99	253	127	119	111	83	81	83	90	92	89	91	92	92	89		
	Indirect	14	37	33	25	67	31	28	24	17	16	16	17	18	17	18	18	18	17		
	Induced	27	65	58	40	100	52	50	47	37	36	37	40	41	40	41	42	42	41		
	Total	103	261	232	164	419	209	197	182	137	133	137	147	151	146	150	152	153	148		
TX-2	Direct	63	150	133	96	231	121	116	111	91	91	95	103	105	104	107	109	111	108		
	Indirect	14	38	34	28	74	33	29	24	17	17	18	19	20	19	20	21	21	21		
	Induced	20	48	42	30	71	38	38	36	30	30	32	35	36	35	37	38	38	37		
	Total	97	235	209	154	376	192	183	171	138	138	145	157	161	158	164	168	170	167		
TX-3	Direct	644	1,978	1,718	1,369	3,987	1,691	1,445	1,191	754	693	673	717	727	670	672	672	668	635		
	Indirect	258	762	674	552	1,552	662	567	458	287	269	264	284	290	269	276	282	285	278		
	Induced	382	1,133	994	782	2,219	958	831	687	426	395	387	414	421	389	396	399	401	386		
	Total	1,284	3,872	3,386	2,702	7,759	3,311	2,843	2,336	1,466	1,357	1,324	1,415	1,438	1,328	1,344	1,353	1,354	1,299		
Total EIA	Direct	1,969	5,415	4,816	3,625	9,945	4,575	4,053	3,600	2,523	2,401	2,412	2,583	2,633	2,509	2,536	2,546	2,539	2,432		
	Indirect	652	1,819	1,638	1,303	3,552	1,579	1,371	1,150	764	729	731	787	804	759	781	796	805	785		
	Induced	940	2,540	2,258	1,705	4,573	2,125	1,912	1,690	1,187	1,137	1,148	1,235	1,261	1,203	1,229	1,245	1,251	1,211		
	Total	3,562	9,773	8,712	6,632	18,071	8,278	7,336	6,440	4,474	4,267	4,292	4,605	4,698	4,471	4,547	4,587	4,596	4,428		

Source: Employment output from MMS's economic impact model MAG-PLAN.

Note: Totals may not sum due to rounding.

Table 4-31b

High-Case Employment (Direct, Indirect, and Induced) Projections  
for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 21-40)

EIA	Type	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total
AL-1	Direct	61	58	56	53	50	47	44	42	39	37	35	39	34	33	46	32	29	26	24	23	2,661
	Indirect	13	13	12	12	11	10	10	9	9	8	8	7	7	7	11	7	6	6	5	5	591
	Induced	8	8	8	7	7	7	6	6	5	5	5	5	5	5	6	4	4	4	3	3	343
	Total	82	79	76	72	68	64	60	56	53	50	47	53	46	45	62	43	40	35	33	31	3,596
FL-1	Direct	59	57	55	52	49	46	44	41	38	36	34	36	32	31	36	29	27	25	23	22	2,106
	Indirect	17	16	16	15	14	14	13	12	11	11	10	11	10	9	12	9	8	7	7	6	848
	Induced	20	19	18	17	17	16	15	14	13	12	11	12	11	10	13	10	9	8	8	7	800
	Total	95	92	89	85	80	75	71	67	63	59	56	59	52	50	61	47	44	40	38	36	3,754
FL-2	Direct	22	22	21	20	19	18	17	16	15	14	13	15	12	12	16	12	11	10	10	9	945
	Indirect	5	5	5	5	4	4	4	4	3	3	3	3	3	3	4	3	3	2	2	2	216
	Induced	8	8	8	8	7	7	6	6	6	5	5	5	5	5	6	5	4	4	4	3	355
	Total	35	35	34	32	31	29	27	25	24	22	21	23	20	20	26	20	18	17	16	15	1,515
FL-3	Direct	69	65	62	58	55	51	48	45	43	40	38	38	34	33	37	31	30	28	26	24	2,679
	Indirect	20	19	18	17	16	15	14	13	12	11	11	11	10	10	11	9	9	8	7	7	819
	Induced	31	30	28	26	25	23	22	20	19	18	17	18	16	15	17	14	14	13	12	11	1,250
	Total	120	114	108	102	96	89	84	79	74	69	65	67	60	58	65	55	52	48	45	43	4,748
FL-4	Direct	21	20	19	18	17	16	15	14	13	13	12	12	11	11	12	11	10	9	9	8	941
	Indirect	5	4	4	4	4	4	3	3	3	3	3	3	3	2	3	3	3	2	2	2	256
	Induced	8	8	8	7	7	7	6	6	5	5	5	5	5	4	6	5	4	4	4	4	417
	Total	35	33	31	30	28	26	25	23	22	21	19	20	18	17	21	18	17	16	15	14	1,614
LA-1	Direct	60	59	57	54	51	48	45	42	40	37	35	38	34	33	41	31	29	26	24	23	2,272
	Indirect	10	9	9	8	8	7	7	6	6	6	6	7	6	6	8	5	5	4	4	4	394
	Induced	20	20	19	18	17	16	15	14	13	13	12	13	11	11	13	10	10	9	8	8	725
	Total	90	88	85	81	77	72	68	63	60	56	53	58	50	49	62	46	43	39	37	35	3,391
LA-2	Direct	558	541	521	498	471	442	415	390	366	344	325	350	307	296	371	283	265	241	226	213	21,288
	Indirect	135	131	127	121	115	108	101	95	89	84	80	89	76	75	99	71	66	59	55	52	5,330
	Induced	296	288	278	266	251	236	222	208	196	184	174	183	162	156	186	146	138	126	118	112	10,528
	Total	989	960	926	884	837	786	737	693	651	611	579	622	545	527	656	500	468	427	399	377	37,147
LA-3	Direct	436	419	402	382	361	338	317	298	280	263	249	286	243	240	341	232	214	189	176	165	19,214
	Indirect	141	137	133	127	120	113	106	99	93	88	83	97	82	81	116	77	71	62	58	54	5,967
	Induced	202	196	189	180	170	160	150	141	132	124	118	131	113	111	148	105	98	87	81	77	8,006
	Total	779	752	723	689	651	611	573	539	506	475	450	514	438	432	605	415	382	338	314	296	33,187
LA-4	Direct	143	138	133	127	120	113	106	99	93	88	84	109	85	85	139	86	79	69	64	60	6,839
	Indirect	91	89	87	83	79	74	70	66	62	58	55	68	55	55	84	53	49	42	39	37	3,825
	Induced	96	94	91	87	82	77	73	68	64	60	58	74	58	58	93	58	53	46	43	40	4,290
	Total	330	321	311	297	281	264	248	233	219	206	197	251	199	198	316	197	181	158	145	136	14,954
MS-1	Direct	51	49	47	44	42	39	37	35	33	31	29	32	28	27	35	26	24	22	20	19	2,110
	Indirect	9	9	8	8	7	7	6	6	6	5	5	6	5	5	6	5	4	4	4	3	411
	Induced	13	12	12	11	11	10	9	9	8	8	7	8	7	7	9	6	6	5	5	5	527
	Total	73	70	67	64	60	56	53	50	47	44	41	45	39	38	50	37	34	31	29	27	3,047
TX-1	Direct	84	81	78	75	71	66	62	59	55	52	49	53	46	45	57	43	40	36	34	32	3,247
	Indirect	17	16	16	15	14	13	12	12	11	10	10	11	10	9	13	9	8	7	7	7	694
	Induced	39	38	37	35	33	31	29	27	26	24	23	24	21	21	26	20	18	17	16	15	1,437
	Total	140	136	131	125	118	111	104	98	92	86	82	89	77	75	96	72	67	61	57	54	5,378
TX-2	Direct	103	100	97	93	88	82	77	73	68	64	61	64	57	54	65	51	48	44	41	39	3,626
	Indirect	21	20	20	19	18	17	16	15	14	13	12	14	12	12	16	11	10	9	9	8	794
	Induced	36	35	34	32	31	29	27	25	24	22	21	22	20	19	23	18	17	15	14	14	1,223
	Total	160	155	150	144	136	128	120	113	106	100	94	100	88	86	104	80	75	68	64	60	5,644
TX-3	Direct	582	561	538	512	484	453	425	400	376	353	335	406	332	328	502	342	318	284	264	249	30,168
	Indirect	265	258	249	238	226	212	199	187	176	165	157	185	155	153	226	153	141	125	116	110	12,509
	Induced	361	350	337	321	304	285	268	252	236	222	211	251	208	205	308	211	195	174	162	153	17,764
	Total	1,209	1,168	1,125	1,072	1,014	951	892	839	788	740	703	842	694	686	1,037	706	654	582	542	511	60,441
Total EIA	Direct	2,249	2,171	2,086	1,987	1,878	1,761	1,652	1,553	1,459	1,370	1,299	1,478	1,254	1,227	1,699	1,208	1,123	1,009	940	887	98,098
	Indirect	748	727	703	672	636	598	561	527	496	466	441	513	433	427	610	416	383	339	315	297	32,654
	Total	1,140	1,105	1,065	1,017	962	903	848	797	749	703	667	753	641	627	853	612	569	513	478	451	47,665

Source: Employment output from MMS's economic impact model MAG-PLAN.

Note: Totals may not sum due to rounding.



Table 4-33

Offshore Spills  $\geq$ 1,000 Barrels from Accidents Associated with OCS Facility Operations (1964-2005)

Year	Volume Spilled (bbl)	Area and Block	Water Depth (ft)	Distance from Shore (mi)	Cause of Spill
1964	2,559	EI 208	94	48	Freighter struck production platform, fire
1964	5,180	EI 208	94	48	Hurricane Hilda destroyed 3 production platforms, blowout
1964	5,100	SS 149	55	33	Hurricane Hilda destroyed production platform, blowout
1964	1,589	SS 199	102	44	Hurricane Hilda destroyed production platform, caused storage oil loss
1965	1,688 <sup>1</sup>	SS 29	15	7	Drilling blowout
1969 <sup>1</sup>	80,000	*	190	6	Drilling blowout
1969	2,500	SS 72	30	6	Storm caused vessel to bump drilling rig resulting in blowout
1970	30,000	MP 41	39	14	Fire destroyed production platform, blowout
1970	53,000	ST 26	60	8	Workover caused fire, destroyed platform and 2 drilling rigs
1973	9,935	WD 79	110	17	Oil storage tank ruptured
1973	7,000	SP 23	61	15	Rough seas sunk stationary storage barge
1979	1,500 <sup>2</sup>	MP 151	280	10	Collision during rough seas between service vessel and drilling rig, damaged rig's diesel tank
1980	1,456	HI 206	60	27	During ballasting, for Hurricane Jeanne, oil storage tank overflowed
1998	1,012 <sup>3</sup>	EW 873	1,271	61	Zinc bromide solution, human error, valve left open
2002	1,800 <sup>4</sup>	WR 206	8,180	160	SBF release, loop current and severe weather, emergency riser disconnect
2003	1,421 <sup>4</sup>	MC 778/822	6,040	75	SBF release, weather, external forces, riser parted
2004	1,034 <sup>4</sup>	GC 653	4,238	120	SBF release, weather, external forces, emergency riser disconnect
2005 <sup>#</sup>	2,000 <sup>1</sup>	EI 314	230	78	Hurricane Rita destroyed platform
2005 <sup>#</sup>	1,572 <sup>2</sup>	SS 250	182	48	Hurricane Rita destroyed drilling rig
2005	1,494 <sup>2</sup>	SM 146	232	79	Hurricane Rita

Notes: Gulf of Mexico crude oil unless otherwise indicated.

<sup>1</sup> condensate.

<sup>2</sup> diesel or other refined oil.

<sup>3</sup> chemical spill.

<sup>4</sup> synthetic base fluid.

\* Occurred in Santa Barbara Channel, California.

# Preliminary information.

EI = Eugene Island Area

SS = Ship Shoal Area

MP = Main Pass Area

ST = South Timbalier Area

WD = West Delta Area

SP = South Pass Area

HI = High Island Area

EW = Ewing Bank

WR = Walker Ridge

MC = Mississippi Canyon

GC = Green Canyon

SM = South Marsh Island

Sources: Anderson and LaBelle, 2000; USDOJ, MMS, 2006a; Anderson, personal communication, June and August 2006.



Table 4-34

Offshore Spills  $\geq 1,000$  bbl from Accidents Associated with OCS Pipeline Oil Transport (1964-2005)

Year	Volume Spilled (bbl)	Area and Block	Water Depth (ft)	Distance From Shore (mi)	Cause of Spill
1967	160,638	WD 73	168	22	Internal corrosion caused by anchor kink
1968	6,000	ST 131	160	28	Anchor drag
1969	7,532	MP 299	210	17	Anchor drag
1973	5,000	WD 73	168	22	Internal corrosion
1974	19,833	EI 317	240	75	Anchor drag
1974	3,500	MP 73	141	9	Hurricane Carmen, connection torn loose
1976	4,000	EI 297	210	71	Trawl drag
1981	5,100	SP 60	185	4	Service vessel's anchor
1988	15,576	GAL 2A	75	34	Anchor drag
1990	14,423 <sup>1</sup>	SS 281	197	60	Anchor drag
1990	4,569	EI 314	230	78	Trawl drag
1992	2,000	SP 8	30	6	During Hurricane Andrew, drilling rig's anchor drag
1994	4,533 <sup>1</sup>	SS 281	197	60	Trawl drag
1998	1,211 <sup>1</sup>	EC 334	264	105	Service vessel anchor drag during rescue operation
1998	8,212	SP 38	10	6	During Hurricane Georges, damage from mudslide
1999	3,200	SS 241	133	50	Jack-up barge damage
2000	2,240	SS 332	435	75	Drilling rig anchor drag
2004 <sup>3</sup>	1,720	MC 20	479	19	Hurricane Ivan mud slide
2004	4,834 <sup>2</sup>	MP 261	1475	75	Hurricane Ivan, anchor drag
2005#	>100-1,812 <sup>1</sup>	EI 51	17	20	Hurricane Rita, suspected anchor or mooring drag
2005#	>100-1,551 <sup>1</sup>	EI 95	17	24	Hurricane Rita, suspected anchor or mooring drag
2005#	200-2,000	MC 109	1,000	18	Hurricane Katrina

Notes: Crude oil unless otherwise indicated.

<sup>1</sup>condensate.<sup>2</sup>methanol.

# = Preliminary information.

WD = West Delta Area

ST = South Timbalier Area

MP = Main Pass Area

EI = Eugene Island Area

SP = South Pass Area

SS = Ship Shoal Area

EC = East Cameron Area

MC = Mississippi Canyon

Sources: Anderson and LaBelle, 2000; Anderson, personal communication, August 2006.

Table 4-35

Mean Number and Sizes of Spills Estimated to Occur in  
OCS Offshore Waters from an Accident Related  
to Activities Supporting a Proposed Action Over a 40-Year Time Period

Spill Size Group	Spill Rate (Spills/BBO) <sup>1</sup>	Number of Spills Estimated for a WPA Proposed Action <sup>2</sup>	Number of Spills Estimated for a CPA Proposed Action <sup>2</sup>	Estimated Spill Size <sup>1</sup>
0-1.0 bbl	3,357.31	812-1,420	2,605-4,337	0.07 <sup>3</sup>
1.1-9.9 bbl	74.7	18-32	58-97	3 <sup>4</sup>
10.0-49.9 bbl	16.18	4-7	13-21	20 <sup>4</sup>
50.0-499.9 bbl	6.37	2-3	5-8	90 <sup>4</sup>
500.0-999.9 bbl	0.52	<1	<1-1	640 <sup>4</sup>
≥1,000 bbl	1.51	<1-1	1-2	4,600 <sup>4</sup>
≥10,000 bbl	0.39	<1	<1-1	15,000 <sup>4</sup>

Notes: The number of spills estimated is derived by application of the historical rate of spills per volume crude oil handled (1985-1999) (Anderson and LaBelle, 2000) to the projected production for a proposed action in the WPA or CPA (Table 4-1). Projected production is an estimate of recoverable resource and is influenced by supporting infrastructure, as well as economic and technological factors. The actual number of spills that may occur in the future could vary from the estimated number.

<sup>1</sup> Source: Anderson and LaBelle, 2000.

<sup>2</sup> Source: Table 4-1.

<sup>3</sup> Average spill size.

<sup>4</sup> Median spill size.

Table 4-36

Mass Balance of a Hypothetical Spill of 4,600 bbl Spilled over a 12-Hour Period from a Pipeline Break during the Summer, 50 Miles Off Louisiana  
(oil characteristics: API 30° and stable emulsion formation)

Time Elapsed after Spill Event Begins (hr)	Estimated Volume in Slick (Spilled Oil Remaining on Water Surface)* (bbl)	Estimated Open Water Slick Thickness (mm)	Estimated Area of Open Water Covered by Slick* (ac)	Estimated Length of Shoreline Contacted, if Slick were to Reach Land (km)	Estimated Volume Lost from Slick by Natural Weathering (bbl)	Estimated Volume Removed from Slick Using Chemical Dispersants (bbl)	Estimated Volume Removed from Slick by Mechanical Cleanup (bbl)	Percent of Total Volume Cleaned Up (%)	Total Percent of Slick Lost from Natural Weathering (%)	Percent of Total Spill Mass Evaporated (%)	Percent of Total Spill Mass Naturally Dispersed (%)
4	1,260	1.4	35	5	220	0	0	0	15	15	0
12	2,620	1	200	30	920	1,050	0	23	21	20	1
24	1,330	1	100	15	1,060	1,750	460	48	24	22	2
48	270	1	20	3	1,210	2,050	1,070	68	27	24	3
72	270	1	10	1	1,250	2,050	1,070	68	28	27	1
240	50**	1	5	1	1,430	2,050	1,070	68	32	30	2

\* Assumes continuous coverage of water surface by slick for first 4 hours and noncontinuous, patchy, wind-row coverage after 4 hours. 50% of the slick would become emulsified, with the remaining being a light sheen.

\*\* After 10 days, the 50 bbl remaining is expected to occur as a rainbow sheen, the slick broken up into many, small slicks spread out over approximately 200 ac. These small sheens would dissipate in less than a day.

Table 4-37

Mass Balance of a Hypothetical Spill of 4,600 bbl Spilled over 12-Hour Period from an OCS Pipeline Break during the Winter, 65 Miles off Texas  
(oil characteristics: API 35°, no emulsion formation)

Time Elapsed after Spill Event Begins (hr/day)	Estimated Volume in Slick (Spilled Oil Remaining on Water Surface)* (bbl)	Estimated Open Water Slick Thickness (mm)	Estimated Area of Open Water Covered by Slick* (ac)	Estimated Length of Shoreline Contacted, if Slick were to Reach Land (km)	Estimated Volume Lost from Slick by Natural Weathering (bbl)	Estimated Volume Removed from Slick Using Chemical Dispersants (bbl)	Estimated Volume Removed from Slick by Mechanical Cleanup (bbl)	Percent of Total Volume Cleaned Up (%)	Total Percent of Slick Lost from Natural Weathering (%)	Percent of Total Spill Mass Evaporated (%)	Percent of Total Spill Mass Naturally Dispersed (%)
4 hr	1,140	0.7	60	10	1,180	0	0	0	26	21	5
12 hr	1,870	0.4	350	50	2,025	710	0	16	44	27	18
24 hr	450	0.3	140	20	2,900	1,040	180	27	64	30	35
48 hr	0				3,380	1,040	180	27	73	31	42
3 days	0										
10 days	0										

\* Assumes continuous coverage of water surface by slick for first 4 hours, then noncontinuous, patchy coverage after 4 hours.

Table 4-38

Estimated Number of Spills that Could Happen in Gulf Coastal Waters  
from an Accident Related to Activities Supporting a Proposed Action

Size Category	Assumed Size	WPA Proposed Action	CPA Proposed Action
Total		15-34	46-102
≤1 bbl	1 bbl	13-29	42-92
>1 bbl and <50 bbl	3 bbl	1-2	2-4
≥50 bbl and <1,000 bbl	150 bbl	1-2	2-5
≥1,000 bbl	3,000 bbl	<1-1	<1-1

Note: The estimated number of spills is obtained from the count of coastal spills for 2001 proportioned to reflect that OCS oil comprised 19 percent of the oil crossing into GOM coastal waters in 2001. Intrastate oil and refined product transport were not included. The low estimate in the range was obtained from Dickey (2006) and the high estimate was obtained from aggregated national data available on the Internet (USCG, 2001).

Sources: Dickey, 2006; USCG, 2001; National Ocean Economics Program, 2006; USDOE, EIA, 2006.

Table 4-39

Number and Volume of Chemical and Synthetic-Based Fluid Spills  
in the Gulf of Mexico during the Years 2001-2004

Spill Size (bbl)	2001		2002		2003		2004	
	Chemical	SBF	Chemical	SBF	Chemical	SBF	Chemical	SBF
1 - <50	9	4	6	11	2	11	16	5
50 - <100	0	0	0	2	0	2	1	1
100 - <500	2	3	2	1	1	3	2	2
500 - <1,000	0	1	0	2	0	1	0	1
>1,000	0	0	0	1	0	1	1	1
Total	11	8	8	17	3	18	20	10

Note: For the years 2001-2003, the total volume of drilling fluid was recorded rather than the volume of the synthetic based fluid within of the drilling fluid.

Table 4-40

Record of Past Spills Where >1,000 bbl of Synthetic-Based Fluid (SBF) was Released

Date	Location	Water Depth (ft)	SBF Volume Released *	Cause
03/01/02	WR 206	8,180	1,800	Emergency riser disconnect
05/21/03	MC 822	6,040	1,421	Riser failure
04/11/04	GC 653	4,238	1,034	Emergency riser disconnect

\* Volume reflects the amount of synthetic fluid, not the total drilling mud released.

Table 4-41

Estimated Air Emissions for OCS and Non-OCS Activities  
in the Western and Central Gulf of Mexico Planning Areas

Activity	Pollutant (tons/yr)				
	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10</sub>	CO	VOC
Production Platforms	112,367	4,999	1,136	132,659	85,714
Exploration Wells	7,083-9,107	1,195-1,536	176-226	744-956	68-88
Platform Construction/ Removal	15,552-15,691	2,650-2,674	388-392	1,936-1,956	199-201
Pipelaying Vessels	2,495-4,990	419-838	62-125	261-523	24-48
Support Vessels	46,455-48,947	7,937-8,362	1,160-1,222	5,997-6,319	621-654
Survey Vessels	111	18	3	11	1
Helicopters	1,179-1,242	145-153	88-92	4,969-5,235	1,873-1,974
Tanker/Barge Transport	3,165	544	81	528	2,572
Total	188,407-195,620	17,906-19,124	3,094-3,277	147,104-148,187	91,072-91,251
2000 Non-Oil/Gas OCS Emissions	49,923	9,280	1,371	13,536	24,444

Table 4-42

Recommended Mitigation Techniques Used to Avoid or Reduce Adverse Impact to Wetlands by  
Pipelines, Canals, Dredging, and Dredged Material Placement

Technique	Decision Process	Factors to Consider
Pipeline Construction		
Avoidance	Route selection and location Evaluation of potential routes that avoid wetlands entirely Shared right-of-way (ROW) and pipelines Using all or part of an existing ROW would avoid new impacts to wetlands	Length of route Difficulty of the land for pipeline installation, i.e., access points and sediment characteristics Presence of other pipelines Presence of transportation corridors Density of surrounding developments Number of different land owners
Minimization	Necessity of pipeline contents	Environment function Timing of the project Previous pipeline installations Availability of equipment
Location/Route Selection	Early planning Considering wetland type Use of aerial photography as well as digital and topographic maps combined with field surveys to identify route of minimal impact	Most routes are predetermined by the beginning and end points Flexibility within general route to locate sections of pipelines to one side or another to take advantage of upland areas, existing ROW, etc.
Existing ROW/Corridors	Plan routes paralleling existing pipelines (safety issues) Timing right to share section of pipeline between or among users	Group pipelines in corridors where impacts are limited to smaller areas of coastal wetlands
Construction/Installation	Methods depend on environment pipeline is constructed Flotation canals Push-pull method Single versus double ditching techniques Directional drilling *	Choice of method has implications for Type of impact Access impact Impact from specific equipment
Dredging		
Dredge and Other Material Disposal	Features associated with pipeline canals and navigation channels Avoid levees by spray dredging, levee manipulation/spoil bank removal, and canal backfilling	Navigation channels and some canals must be left open for access Impacts associated with spoil banks include soil compaction, impoundment, and creation of upland vegetation
Dredge Material Bank Removal	Identify areas to place dredge Navigation channels Canals that cannot be backfilled Potential use for filling nearby old canal or abandoned navigation channels Off-site mitigation	Due to expense and difficulty in many coastal areas only used in sensitive areas
Levee Manipulation	Dredge material should allow water to pass through openings in the line of dredge placement	Levees used as walkways and built from material placed in a long line paralleling the length of the project is detrimental to marsh and should be built discontinuous instead Must maintain natural hydrologic pattern Technique is post-construction technique where sections of dredge banks are removed in order to restore hydrologic flow
Spray Dredge	Suggested and used to avoid completely the creation of dredge banks Spray dredging places material over a large area of marsh surface at a depth that avoids destroying vegetation or altering hydrology	Normally dredge is deposited discontinuously and unevenly, enabling the avoidance of sensitive habitats or minimize spoil over small creeks More costly than more traditional use of the bucket dredge; most contractors along the Gulf Coast have not invested in spray dredge technology
Canals and Channels		
Backfill	Suggested as a way to minimize impacts from canals and to restore impacted habitats Based on OCS permit information, this is the most common required mitigation in recent years In Texas and Louisiana, a typical backfilled pipeline canal results in 75% reduction in direct impacts to the marsh as compared to non-backfilled canals (Baumann and Turner, 1990)	Involves returning soil into the canal so that the elevation is restored as close as possible to pre-construction elevation May occur on-site for canal restoration, as well as off-site as mitigation for other dredging operations Intended benefits of backfilling are reestablishment of marsh vegetation in the canal and on the regraded spoil bank, and restoration of marsh soils on bottom of the canal



Technique	Decision Process	Factors to Consider
Canals and Channels (continued)		
Wood Chipping	A new technique unique to forested wetlands Regulatory personnel believe the use of windrows should be avoided. Requirement for chipping on-site started approximately 1992/1993	Prior to 1996, trees removed for ROW being pushed to the side created <i>windrows</i> with the potential to act as hydrologic barriers Success of wood chipping remains undetermined. Problems encountered include equipment not adapted to the function of marshes, equipment is expensive, and process is time-consuming
Erosion Stabilization	Many impacts are from pipeline canals and navigation channels Stabilization of banks is critical Lack of stabilization can result in slumping of canal sides and blockage of natural creeks/drainage streams	Erosion control measures are required through the use of Best Management Practices Requirement is usually erosion control/siltation fences
Revegetation	Often required by permits Extremely valuable to the acceleration of marsh recover over first growing season Most extensive data exist for the revegetation of dunes, but through the use of directional drilling, is not the concern as in past cases	Stabilizes shorelines, shore banks, and areas surrounding stream crossings where erosion is most likely to occur Helps to reduce sedimentation and erosion
Plugs/Dams	Structures have been used frequently in order to mitigate adverse hydrodynamic impacts and accelerated erosion, i.e., dams, weirs, bulkheads, rip-rap, shell/gravel mats, and biodegradable mats	Reduces erosion and provides barriers to saltwater intrusion Plugs maintain elevated marsh water levels Prevent saltwater intrusion into low-salinity marshes Reduces tidal exchange thereby reducing bank erosion
Erosion Control during Project	Construction of pipelines and navigation Channels is governed by the of Best Management Practices and erosion control during the construction phase is a requirement	Natural features of each construction site should be identified for the necessary erosion control
Timing of Project	Seasonal timing of the project can minimize impacts Avoid impacts to endangered species, particularly bird breeding seasons	Expanding restrictions to ensure there will be at least part of one growing season for re-establishment of vegetation before fall/winter has been discussed, but dismissed for economic reasons to industry
Restoration	Can occur either immediately, post construction, or many years after pipeline and navigation canal construction	Backfilling of canals, resulting in levee removal, has been a requirement for most pipeline installation projects There is a benefit to backfilling old canals and navigation channels in order to reduce or reverse the trend of wetland losses in coastal Louisiana Other options include the use of imported material
Compensation	Typically occurs through the creation of new wetland habitat or through a cash payment to the appropriate land management agency Allows for the creation and restoration of lost wetland habitat In Louisiana, the payment of cash for wetlands into a State trust fund is administered by LADNR and is controversial This fund has been in existence for several years and has a significant accumulation of funds; however, no creation projects have yet to tap into it	In many cases not an option Saline marshes have yet to be successfully created, and finding appropriate locations to create salt marsh is difficult Forested wetlands are also difficult to compensate
* Trenchless, or directional drilling, is the newest and favored technique in sensitive habitats. This technique is considered to be extremely protective of sensitive habitats. At present, directional drilling is required almost without exception for crossing barrier island and shore faces. Impacts are limited to the access and staging sites for the equipment. By using directional drilling, pipeline installation can occur without having to cut through shore facings, minimizing any erosion and surface habitat disturbance		

















Table A-1

## Watermasses in the Gulf of Mexico

Watermass	Eastern Gulf of Mexico			Western Gulf of Mexico		
	Depth	Feature(s)	Sigma-theta (m)(mg/cm <sup>3</sup> )	Depth	Feature(s)	Sigma-theta (m)(mg/cm <sup>3</sup> )
SUW-LC	150-250	S <sub>max</sub>	25.40	NA	NA	NA
SUW	150-250	S <sub>max</sub>	25.40	0-250	S <sub>max</sub>	25.40
18°C W	200-400	O <sub>2max</sub>	26.50	NA	NA	NA
TACW	400-700	O <sub>2min</sub>	27.15	250-400	O <sub>2min</sub>	27.15
AAIW	NA	NA	NA	500-700	NO <sub>3max</sub>	27.30
AAIW	700-900	PO <sub>4max</sub>	27.40	600-800	PO <sub>4max</sub>	27.40
AAIW	800-1,000	S <sub>min</sub>	27.50	700-800	S <sub>min</sub>	27.50
UNADW	900-1,200	SiO <sub>2max</sub>	NA	1,000-1,100	SiO <sub>2max</sub>	NA
		SiO <sub>2max</sub>	27.70		SiO <sub>2max</sub>	27.70

## Key:

18°C W = 18 degrees Centigrade Sargasso Sea Water.

AAIW = Antarctic intermediate water.

NA = information not available.

NO<sub>3max</sub> = nitrate maximum.

O<sub>2max</sub> = dissolved oxygen maximum.

O<sub>2min</sub> = dissolved oxygen minimum.

PO<sub>4max</sub> = phosphate maximum.

SiO<sub>2max</sub> = silicate maximum.

S<sub>max</sub> = salinity maximum.

S<sub>min</sub> = salinity minimum.

SUW = subtropical underwater in the Gulf but outside the Loop Current.

SUW-LC = subtropical underwater in the Loop Current and new Loop Current eddies.

TACW = tropical Atlantic central water.

UNADW = mixture of upper North Atlantic deep water and high-silicate Caribbean mid-water.

Table A-2

## Climatological Data for Selected Gulf Coast Locations

Location	Precipitation (annual average, meters)	Temperature (mean annual, °C)	Wind Speed (average annual mean, m/sec)	Humidity (average percent)	Barometric Pressure (average annual millibars)	Stability Conditions Annual Percent		
						Unstable	Neutral	Stable
Corpus Christi, TX	0.77	21.7	5.4	89	1,014	11.0	61.0	28.0
Galveston, TX	1.07	20.9	4.9	83	1,015	16.0	61.4	22.6
Lake Charles, LA	1.35	19.9	3.9	90	1,016	23.0	44.0	33.0
Gulfport, MS	1.50	20.0	3.6	85	1,016	17.5	47.4	35.1
Pensacola, FL	1.55	19.9	3.7	85	1,013	18.0	22.0	60.0
Key West, FL	1.01	25.3	5.0	79	1,014	80.0	18.0	2.0

Source: USDOC, NOAA, 1961-1986.

Table A-3

## Summary of the Most Damaging Hurricanes in the Gulf of Mexico (1900-2005)

Hurricane	Year	Category <sup>1</sup>	Damage (million \$)	Deaths
Texas	1900	4	NA	6,000+
Mississippi/Alabama/Pensacola, Florida	1906	3	NA	134
Southeast Florida	1906	2	NA	164
Louisiana	1909	4	NA	350
Texas	1909	3	NA	41
Louisiana	1915	4	NA	275
North Texas	1915	4	1,177	275
Southwest Louisiana	1918	3	NA	34
Florida Keys	1919	4	NA	600-900
Florida	1926	4	1,315	243
Louisiana	1926	3	NA	25
Texas	1932	4	NA	40
South Texas	1933	3	NA	40
Southwest Florida	1944	3	582	NA
Southeast Florida/Louisiana/Mississippi	1947	4	707	51
Audrey (Louisiana/Texas)	1957	4	696	390
Carla (Texas)	1961	4	1,926	46
Hilda (Louisiana)	1964	3	578	38
Betsy (Florida/Louisiana)	1965	3	6,461	75
Beulah (Texas)	1967	3	844	NA
Camille (Mississippi/Alabama)	1969	5	5,242	256
Celia (Texas)	1970	3	1,560	NA
Eloise (Florida)	1975	3	1,081	NA
Claudette (Texas)	1979	T.S.	609	NA
Frederic (Alabama/Mississippi)	1979	3	3,502	NA
Allen (Texas)	1980	3	410	NA
Alicia (Texas)	1983	3	2,391	NA
Elena (Mississippi/Alabama/Louisiana)	1985	3	1,392	NA
Juan (Louisiana)	1985	1	1,671	NA
Allison (Texas)	1989	T.S.	511	NA
Andrew (Florida/Louisiana)	1992	4	30,475	NA
Gordon (Florida)	1994	T.S.	400	NA
Alberto (Florida/Alabama)	1994	T.S.	500	30
Erin (Florida/Miss/Alabama)	1995	1	700	NA
Opal (Florida/Alabama)	1995	3	3,069	NA
Danny (Louisiana/Florida)	1997	1	NA	NA
Earl (Florida)	1998	1	NA	NA
Georges (Florida/Mississippi)	1998	2	NA	NA
Bret (Texas)	1999	4	NA	NA
Irene (Florida)	1999	1	NA	NA
Allison (Texas)	2001	T.S.	5,000	NA
Lili (Louisiana)	2002	1	860	NA
Jeanne (Florida)	2004	3	6,900	NA
Frances (Florida)	2004	2	8,900	NA
Ivan (Alabama/Florida)	2004	3	14,200	NA
Charley (Florida)	2004	4	15,000	NA

Table A-3. Summary of the Most Damaging Hurricanes in the Gulf of Mexico (1900-2005)  
(continued)

Hurricane	Year	Category <sup>1</sup>	Damage (million \$)	Deaths
Dennis (Florida)	2005	3	2,230	42
Katrina (Louisiana/Mississippi/Alabama)	2005	3	75,000-100,000	1,600+
Rita (Texas/Louisiana)	2005	3	10,000	6
Wilma (Florida)	2005	3	12,200	22

Sources: Modified from Herbert et al., 1992.

USDOC, NOAA, NHC, 2001.

USDOC, NOAA, NHC, 2006.

<sup>1</sup> Storm category at landfall from the Saffir-Simpson scale.

Category 1 = winds of 74-95 mph

Category 4 = winds of 131-155 mph

Category 2 = winds of 96-110 mph

Category 5 = winds greater than 155 mph

Category 3 = winds of 111-130 mph

T.S. = tropical storm.

NA= data not available.

Table A-4

Rigs-to-Reefs Donations and Methods of Removal and Reefing by State as of May 2006

State	Rigs-to-Reefs Donations	Tow-and-Place Platforms	Topple-in-Place Platforms	Partial Removal Platforms
Louisiana	147	91	49	7
Texas	83	40	16	27
Florida	3	3	0	0
Alabama	6	6	0	0
Mississippi	8	3	5	0
Total	247	143	70	34

Table A-5

## MMS-Funded Hurricane Research and Studies

Subject	Description
Hurricanes Katrina and Rita	
Joint Industry Project to Study Risk-Based Restarts of Untreated Subsea Oil and Gas Flowlines in the GOMR (Project No. 579)	This project assesses potential solutions to the disruptions of production restart from hydrates affecting pipelines after a long shut-in period such as a hurricane. Preliminary work shows that it may be possible to reduce the risk of hydrate plugging by selecting an appropriate restart rate. The MMS and industry will use the results of this project to reduce the risk of having hydrates stop production restarts.
Hindcast Data on Winds, Waves and Currents in Northern Gulf of Mexico in Hurricanes Katrina and Rita (2005) (Project No. 580)	The study objective is to develop a database of wind, sea state, and currents resulting from Hurricanes Katrina and Rita meteorological data and application of advanced hindcast models. The study contractor has already responded to urgent industry needs for a preliminary assessment of the impact of Hurricanes Katrina and Rita by performing and distributing to several offshore operators an "emergency response (ER)" wind and wave hindcast. The study contractor will make that same data immediately available to the other MMS contracted researchers providing Hurricane Katrina/Rita research then, following completion of the study contractor's new work, they will deliver a second and more in-depth hindcast data analysis (referred to as "fast response (FR)" that results from this new study. The FR hindcast differs from the ER hindcast in the following ways: (1) it will use a larger base of measured wind, wave, surge, and current data, (2) it will include a more detailed reanalysis of the wind field; (3) particular attention will be paid to provision of much higher resolution in shallow water and to the inclusion of the storm-perturbed water level in the shallow-water wave hindcast; and (4) more robust 1D and 2D current models will be adopted.
Pipeline Damage Assessment from Hurricane Katrina/Rita (Project No. 581)	The objective of the study is to find out what happened to the GOM pipeline infrastructure during Hurricanes Katrina and Rita and how to be better prepared in the future to reduce hurricane damage in the GOM. The study contractor proposes development of a web-based pipeline damage reporting system with MMS's eWell system. The intent of the web-based program is to allow operators with options to report their operational status more quickly and efficiently following a major event, plus it allows MMS the means to automate data collection and reporting.
Assessment of Fixed Offshore Platform Performance in Hurricanes Katrina and Rita (Project No. 578)	The objective of this effort is to conduct a qualitative and quantitative assessment of fixed offshore platforms that were affected by Hurricane Katrina and/or Rita. Resulting data will be evaluated to determine if any common trends occur, and also to determine if current API standards are an accurate indicator of expected performance. Coordination and consultation with the API HEAT group will occur throughout the project.
Modeling Waves and Currents Produced by Hurricanes Katrina and Rita (GM-06-x10)	<p>The objective of the study is to assess the response of waves and currents throughout the water column on the northern GOM slope and shelf to Hurricanes Katrina and Rita, using numerical modeling techniques in conjunction with available meteorological and physical oceanographic data. In particular, this study aims at</p> <ol style="list-style-type: none"> <li>1. a realistic simulation of circulation throughout the entire water column in the northern GOM continental slope and shelf regions, including the response of currents and waves to Hurricanes Katrina and Rita;</li> <li>2. determination of the length of time for which substantial ocean response to these hurricanes persisted; and</li> <li>3. determination of the area or areas of greatest wave height and current speed.</li> </ol>

<p>Post-Hurricane Assessment of Sensitive Habitats of the Flower Garden Banks Vicinity (GM-06-x11)</p>	<p>The condition of the communities on the banks selected for the study is important to the health of the ecosystem as a whole. This study will conduct field surveys at the East Flower Garden Bank and at Sonnier, Geyer, and possibly West Flower Garden and McGrail Banks to determine their condition and to track the progress of recovery from Hurricane Rita effects. The study will enhance MMS's ability to distinguish natural from anthropogenic impacts. Results from the study of these banks can be considered representative of others in the area and will improve the MMS's ability to make management decisions.</p>
<p>Post-Hurricane Assessment of OCS-Related Infrastructure and Communities in the Gulf of Mexico Region (GM-92-42-124)</p>	<p>The primary objective of this project is to update the existing Infrastructure Fact Book in light of the recent changes in the industry and the region. The goal will be a better understanding of the impacts that the 2005 tropical activity may have on future onshore infrastructure development trends and outlooks. A second objective will be to reorganize and supplement some of the information to better support EIS development. In addition to updating the underlying data, the original data documentation will be updated to ensure that the metadata associated with the project meets newer MMS data collection standards that have been developed since the original project concluded. The project will also conduct a socioeconomic analysis of select communities with a high concentration of OCS-related infrastructure. This analysis will take the existing GIS infrastructure information, as well as additions and supplements developed during this project, and identify communities of interest. For a set of 6-10 communities selected, detailed community profiles will be developed using Census data.</p>
<p>Spatial Restructuring and Fiscal Impacts in the Wake of Disaster: The Case of the Oil and Gas Industry Following Hurricanes Katrina and Rita (GM-92-42-125)</p>	<p>The objective of the study is to examine the following research questions:</p> <ol style="list-style-type: none"> <li>1. What role will the oil and gas industry play in providing employment stability in the region in the aftermath of the storms, and how will this change over time?</li> <li>2. Will a spatial shift of employment occur in response to the storms? If so, which areas stand to benefit and which areas stand to suffer from these changes?</li> <li>3. How will the response of the oil and gas industry compare with other major industrial sectors in terms of its impact on employment and thus the region's recovery?</li> <li>4. What strategies will the oil and gas industry use to recruit new and retain current employees?</li> <li>5. What fiscal effects will the industry have on impacted communities, Gulf States, and the Gulf region?</li> </ol>
<p>Hurricane Ivan</p>	
<p>Examination and Review of Mobile Offshore Drilling Unit (MODU) Loss of Station-keeping Ability during Hurricane Ivan and Assessment of Current Mooring Standards and Criteria to Prevent Similar Failures (Project No. 548)</p>	<p>The project examined the loss of MODU station-keeping in the Gulf of Mexico during Hurricane Ivan in September 2004, comparing those findings with that of recent Hurricanes Andrew (1992) and Lili (2002), and it assessed the current mooring standards and criteria to prevent similar failures.</p>
<p>Assessment of Fixed Offshore Platforms in Hurricane Ivan, Andrew (Project No. 549)</p>	<p>Based on the damage data collected from Hurricanes Ivan (2004), Andrew (1992), and Lili (2002), this project determined the effectiveness of current structural design standards and MMS regulations. It analyzed the effectiveness of API RP2A and Section 17 to see if both the API standards and MMS regulations performed as expected for the assessment of existing fixed platforms.</p>
<p>A Pilot Study for Regionally-Consistent Hazard Susceptibility Mapping of Submarine Mudslides, Offshore Gulf of Mexico (Project No. 550)</p>	<p>During Hurricane Ivan in 2004, a number of GOM pipelines and platforms were believed to have been impacted by mudslides in the region of Ivan's path. This project provides hazard information for the design and placement of new pipelines and structures by determining the applicability of developing regionally consistent hazard maps that delineate relative susceptibility of GOM offshore regions to future submarine mudslides, including identification of past and future probable locations of underwater slope failures. The project consists of a pilot test to map the seafloor bottom using high-resolution bathymetric and seismic data to delineate past mudslide failures, sediments susceptible to failure, and areas of relative stability. An important part of this mapping is to determine the relative ages of sediment and past failures in order to evaluate where future failures are most likely to occur, and equally important, likely to not occur.</p>

Assessment of Drilling and Workover Rig Storm Sea Fastenings on Offshore Floating Platforms During Hurricane Ivan (Project No. 551)	Drilling and workover rigs on floating production systems (FPS's) are held to the decks by sea fastenings to prevent movement during hurricanes. During Hurricane Ivan, a number of drilling or workover rigs shifted. These movements are assessed, along with the current design philosophy and criteria for storm sea fastenings, rig and storm sea fastening installation practices, and onboard storm operational practices to ready FPS's for a hurricane. The study's results provide information that can be used to assess any needs to revise tie-down criteria or practices.
Mudslides during Hurricane Ivan and an Assessment of the Potential for Future Mudslides in the GOM (Project No. 552)	During 2004 and 2005, Hurricanes Ivan, Katrina, and Rita damaged and destroyed hundreds of GOM pipelines and platforms, many from mudslides both in line with and adjacent to the hurricanes' paths. This project examines and reviews the mudflow/mudslide areas in the GOM caused by hurricanes. Revised and/or new maps indicating areas of high risk were produced. This will be accomplished through a review of both historical data, as well as new data that resulted from Hurricanes Ivan, Katrina, and Rita.
Pipeline Damage Assessment from Hurricane Ivan (Project No. 553)	In September 2004, Hurricane Ivan, a Category 4 hurricane, moved through the GOM with winds and waves that exceeded the 100-year storm design criteria of offshore facilities. Approximately 10,000 mi of pipelines were in the direct path of Hurricane Ivan. The MMS received industry damage assessment reports identifying damage to the offshore pipeline infrastructure. This project determined the type, cause, and extent of pipeline damage incurred during Hurricane Ivan and provides guidance for improving pipeline integrity/design to reduce potential damage from future GOM hurricanes.
Offshore Hurricane Readiness & Recovery Conference (Project No. 559)	The Offshore Hurricane Readiness & Recovery Conference, co-sponsored by MMS, was held July 26-27, 2005, in Houston, Texas. The conference brought industry and government officials together to share and learn from the experiences of Hurricane Ivan to improve future performance and reliability of offshore operations in the GOM.
Ocean Currents under Hurricane Ivan on the Mississippi/Alabama Shelf (GM-05-x12)	The purpose of this interagency agreement is to analyze vertical profiles of ocean currents prior to, during, and after the passage of Hurricane Ivan to assess the response of the ocean to such an energetic atmospheric event. In particular, a 3-dimensional response of ocean currents will be sought by the Naval Research Laboratory research team.
Hurricane Lili	
Validation and Calibration of API RP2A Using Hurricane Lili to Update the Hurricane Andrew Joint Industry Project (JIP) Results that Provided the Basis for API Section 17 (Project No. 466)	This project updates the API RP2A section using Hurricane Lili data to validate and calibrate Hurricane Andrew's JIP results. The general project objectives were to <ol style="list-style-type: none"> <li>1. determine the validity of the API RP2A process using a combined set of Hurricane Andrew and Hurricane Lili data;</li> <li>2. determine the anticipated conservatism of the API process, if any, by determining the bias factors for the jacket and foundation;</li> <li>3. identify the areas of the API design process, wave load, foundation design, etc., that provide the most significant bias contributors; and</li> <li>4. make recommendations on improvements to API RP2A.</li> </ol>
Hindcast Study of Winds, Waves, and Currents in Northern GOM in Hurricane Lili (2002) (Project No. 467)	The purpose of this study was to develop a description of the evolution and distribution of the surface wind field, wave, salinity, sea-surface temperature, and current field in the northern GOM during the approach and passage of Hurricane Lili in 2002. The hindcast used all available public domain meteorological and oceanographic measured data, and Oceanweather's most accurate cyclone wind and wave hindcast methods. Hindcast results are validated against available measured data and an assessment of the accuracy of the hindcast provided with the results. The narrative report includes a description of the data sources, storm evolution (track and intensity), wind and wave hindcast method and a summary of results.
Post-Mortem Failure Assessment of Drilling Rigs during Hurricane Lili (Project No. 469)	The project studied the failures of offshore drilling rigs, MODU's, and jackup rigs associated with the passage of Hurricane Lili in the autumn of 2002. It developed recommendations for updates on criteria, reviewed data from the Hurricane Andrew timeframe, and the made recommendations to SNAME RP for possible future mitigation action.

Assessment of Performance of Deepwater Floating Production Facilities (Project No. 471)	This project collected and assessed information on the performance of deepwater production facilities that were impacted by Hurricane Lili (2002). This study formed the basis for developing recommendations for improvement in design and operation of installations such as <ol style="list-style-type: none"> <li>1. vortex-induced vibration of risers;</li> <li>2. loss of air gap with wave loading on decks;</li> <li>3. tension leg platform TLP performance; and</li> <li>4. spar performance measurements.</li> </ol>
Evaluate and Compare Hurricane-Induced Damage to Offshore Pipelines for Hurricane Lili – Rev. A (Project No. 503)	This project investigated the major classes of pipeline failure that resulted to GOM OCS facilities by Hurricane Lili in the fall of 2002. The project had four objectives: <ol style="list-style-type: none"> <li>1. investigate pipeline failures resulting from Hurricane Lili, including flowlines, major trunk lines, and platform risers from both fixed and floating production facilities;</li> <li>2. compare and contrast these failures with those reported from Hurricane Andrew;</li> <li>3. make specific recommendations for changes in design or operations guidelines that might prevent or mitigate such failures in the future; and</li> <li>4. suggest cost-effective methods for making existing pipelines designed by older guidelines less likely to fail in the future.</li> </ol>
Hurricane Andrew	
Study and Hindcast of Wind and Wave Fields for Hurricane Andrew (Project No. 193)	This study was a JIP to describe the evolution and distribution of the surface wind field and wave field in the northern GOM during Hurricane Andrew in August 1992. The hindcast used public domain meteorological and oceanographic measured data and the Oceanweather's most accurate cyclone wind and wave hindcast methods. The narrative report includes a description of the data sources, storm evolution (track and intensity), hindcast method and a summary of results.
Hurricane Andrew Calibration Study (Project No. 199)	This study was a JIP to collect information gained from platform failures and survivals during Hurricane Andrew and to develop a database for the future management of existing platforms. The MMS, through its Platform Verification Program, is responsible for a wide variety of functions related to the strength and integrity of offshore platforms. This project incorporates a "calibration" task that uses the outcome of Hurricane Andrew (survived, damaged, or failed platforms) to update and adjust, where necessary, current practices for assessing in-place offshore platforms. This calibrated approach could become part of a future API RP2A recommendation for assessing existing offshore platforms.
Performance of Safety and Pollution Control Devices in the Aftermath of Hurricane Andrew (Part of the Hurricane Andrew OCS Damage Assessment Program) (Project No. 203)	The objective of this project was to develop a reliability database that will increase the confidence in the methodology used to develop safety systems, thereby increasing the safety of offshore developments. The basis of achieving the objectives of this work was to secure the support of operators associated with MMS to ease the gathering of data related to the performance of safety and pollution control devices within the offshore environment. These data were collated into a computer database and used as input to the review of reliability assessment methodology and the performance of test case analysis.
Post Mortem Platform Failure Evaluation Study (Project No. 204)	This study was a JIP that used the results of Hurricane Andrew to evaluate engineering methods for predicting platform failure or survivability by comparing screening analysis and/or detailed failure analysis against actual field data (i.e., platforms that were exposed to Andrew and either survived, collapsed, or were damaged). In addition, the study also examined the concept of a formal Offshore Platform Evaluation System as a management information system.
Shallow Water Wave and Current Field Study (Project No. 206)	The study provides a comprehensive and reliable database of environmental data in shallow-water (as well as offshore) areas affected by Hurricane Andrew through the implementation and application of advanced numerical wave and current hindcast models. The models adopted were previously applied and validated against historical GOM hurricanes. These were carefully checked and recalibrated against available data acquired in Hurricane Andrew.
API/Hurricane Foundation Study (Project No. 207)	The study is a JIP to develop separate bias factors for evaluation of pile foundations of GOM offshore steel jackets based upon their performance during Hurricane Andrew. Some similarly limited studies were performed for caisson structures. The purpose of the study is to evaluate possible conservatism in the current API RP2A foundation design recipe.



Development of Acceptance Criteria for Caisson Structures Damaged during Hurricane Andrew (Project No. 209)	Approximately 100 caisson structures were tilted during Hurricane Andrew. The objective of this study was to develop an acceptance criteria for those tilted structures and to develop guidelines for straightening those structures that did not meet the criteria.
Hurricane Andrew Effects on Offshore Platforms (Project No. 210)	This study was a JIP to inspect and analyze three Chevron platforms in their South Timbalier field. Two structures survived Hurricane Andrew; the other toppled during the hurricane. The objective of the study was to compare analytical predictions with actual field performance, with particular emphasis on individual members and platform system failures. This assessment provided information in developing guidelines to be incorporated into API RP2A.
Dynamic Nonlinear Loading Effects on Offshore Platforms (Project No. 224)	The project's objective was to conduct parametric studies of the dynamic response of reduced degrees of freedom nonlinear systems and to determine how the results from simplified nonlinear capacity analysis relate to the results from complex time-domain analysis of the performance of platforms in extreme condition storms. Observed platform performances during recent hurricanes (e.g., Andrew, Camille, Betsy, and Hilda) were used to verify the analysis. Engineering guidelines were developed to define dynamic nonlinear loading-capacity effects on the overall performance characteristics of platforms.
Hurricane Andrew Effects on Offshore Platforms (Phase II - JIP) (Project No. 229)	The study was a JIP. Phase I was a calibration task to study the effects of Hurricane Andrew on platforms (i.e., survived, damaged, or failed). The outcomes were used to update current practices for assessing the ability of in-place platforms to withstand hurricanes. This calibration approach became part of API's RP2A standard for assessing existing offshore platforms.

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### The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



### The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.