

Figure 4-1. Deepwater Exploration and Production Structures.

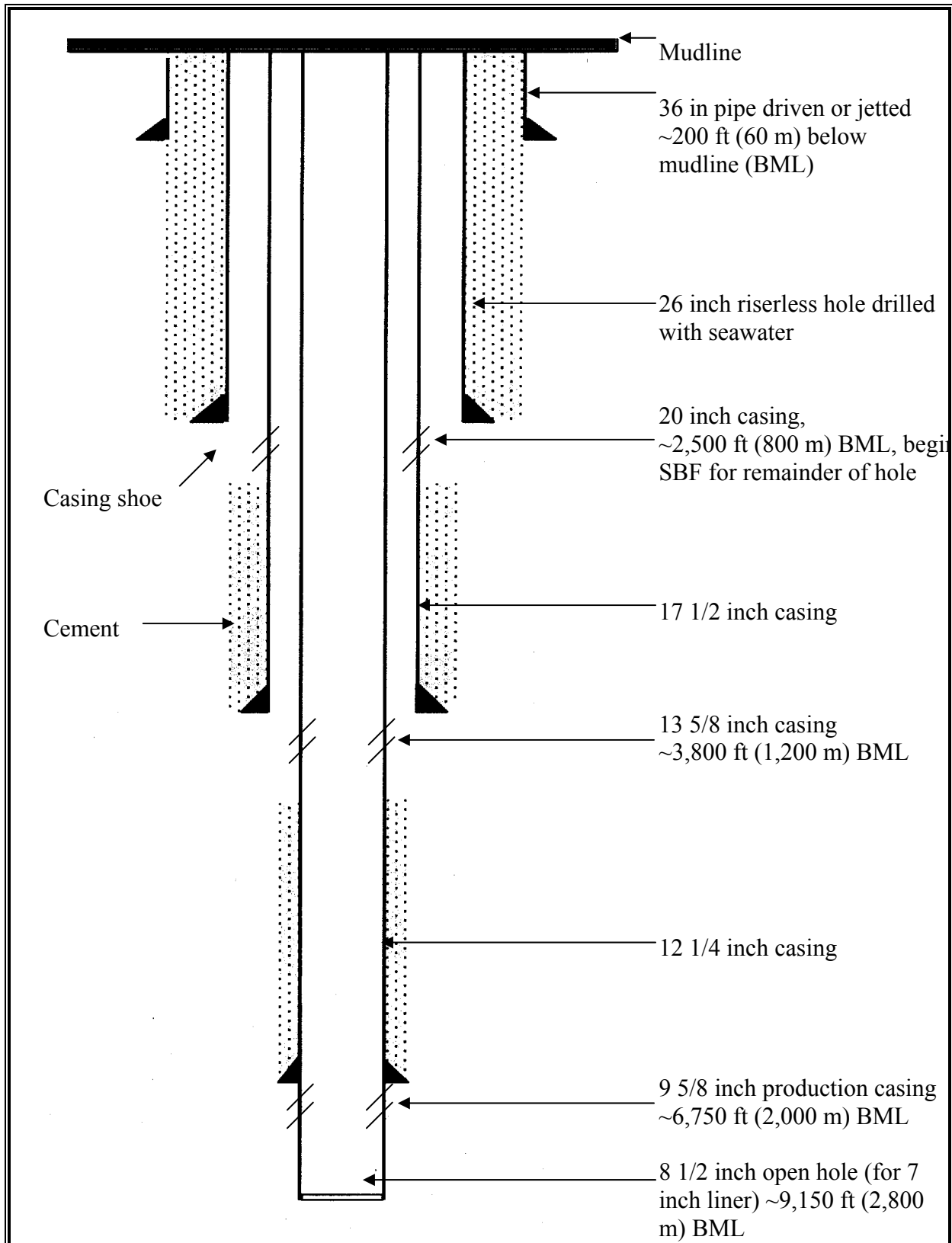


Figure 4-2. Generic Well Schematic for a Shallow Exploration Well in the Proposed Lease Sale Area, Composed from Nearby Industry Developments Projects.

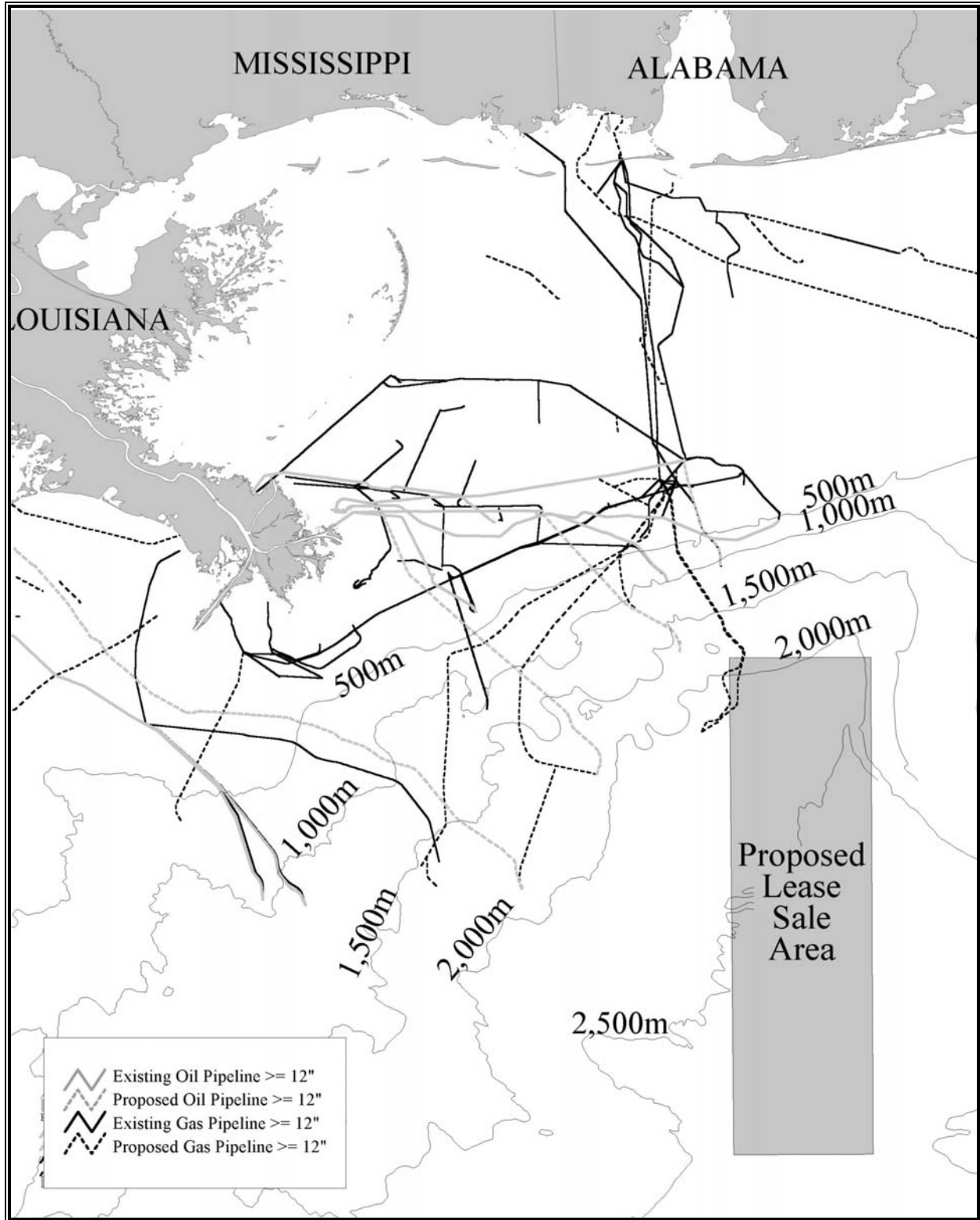


Figure 4-3. Existing and Proposed Pipelines Near the Proposed Lease Sale Area.

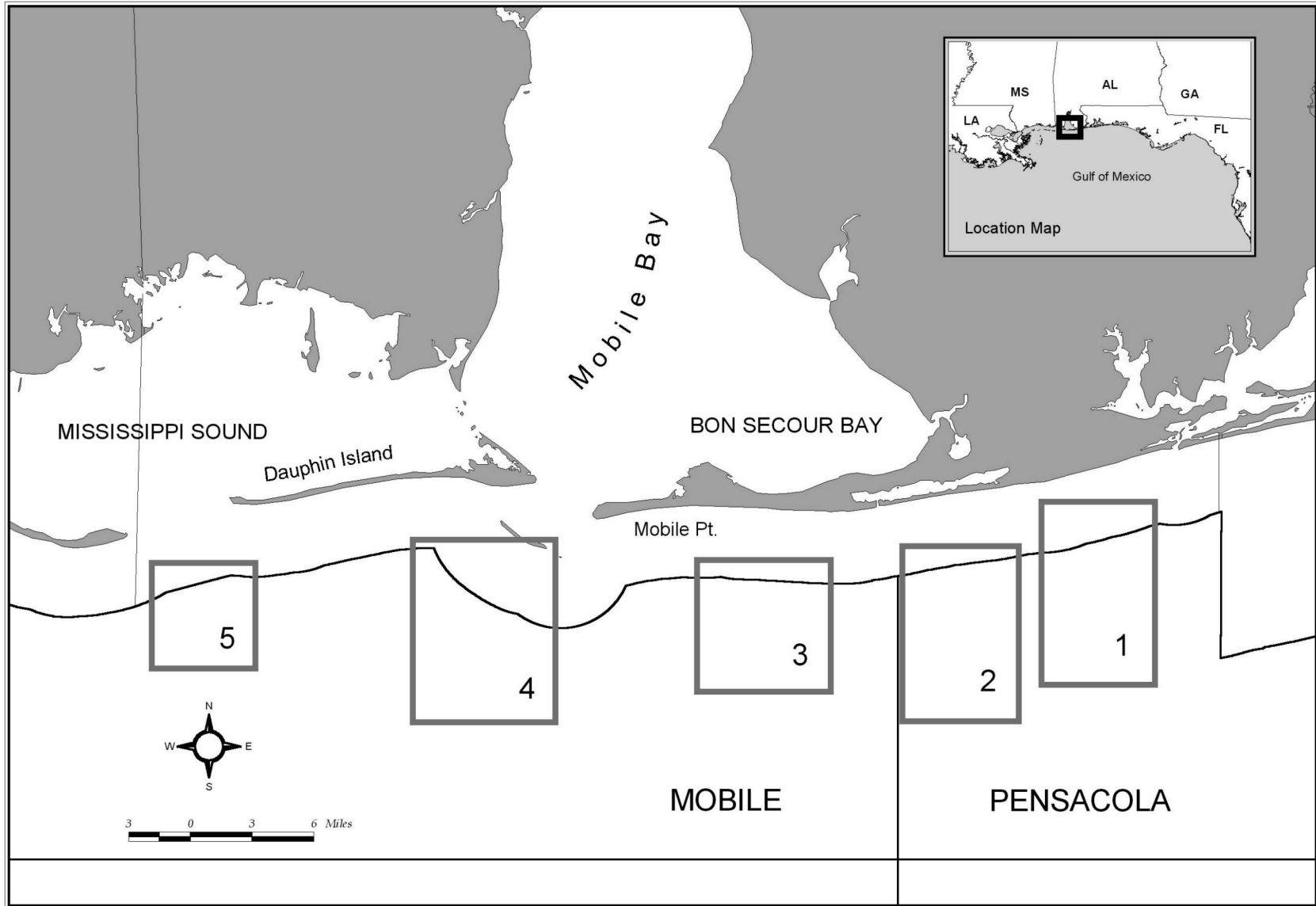


Figure 4-4. Location of Identified Sand Resource Sites Offshore Alabama.

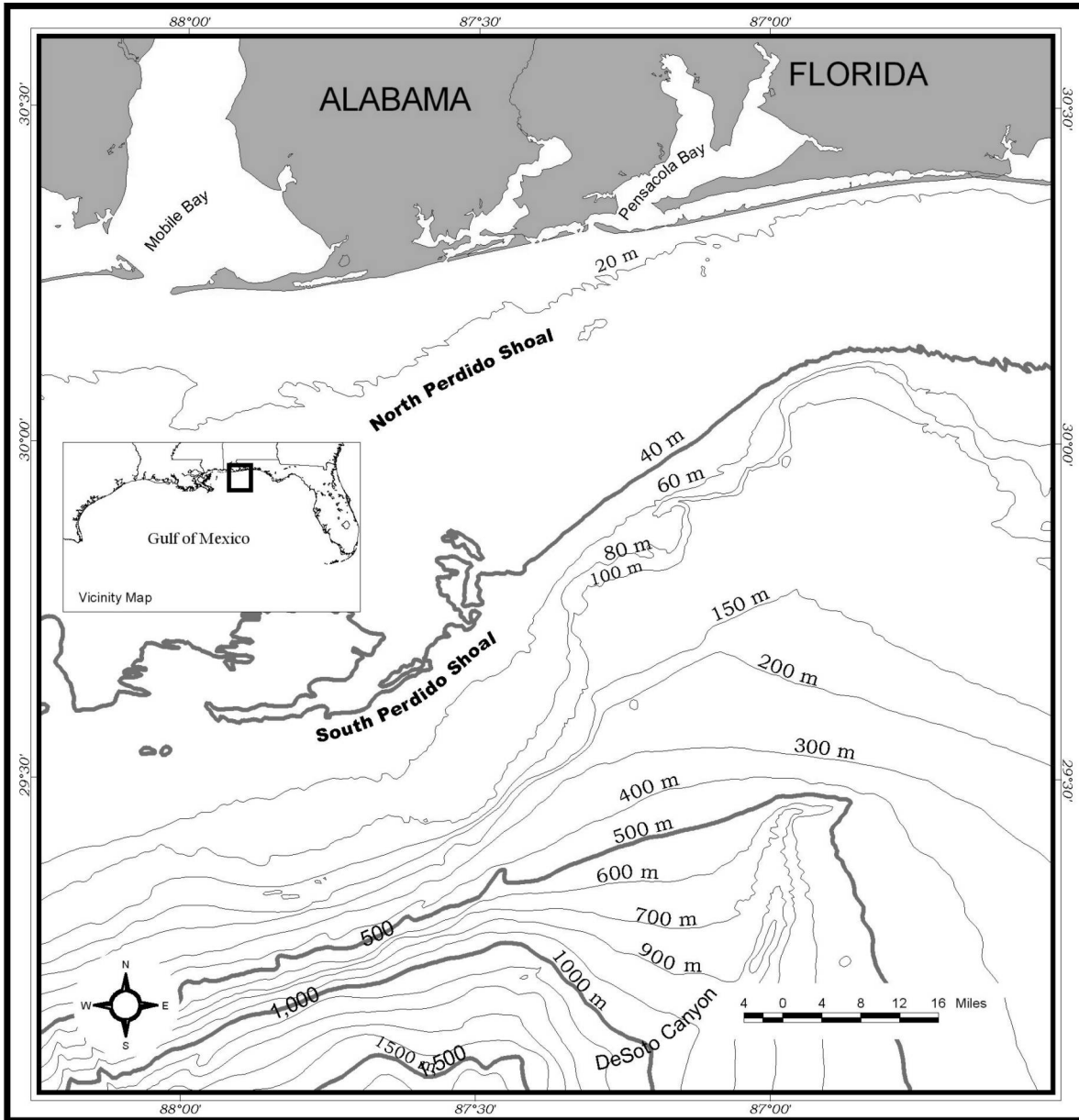
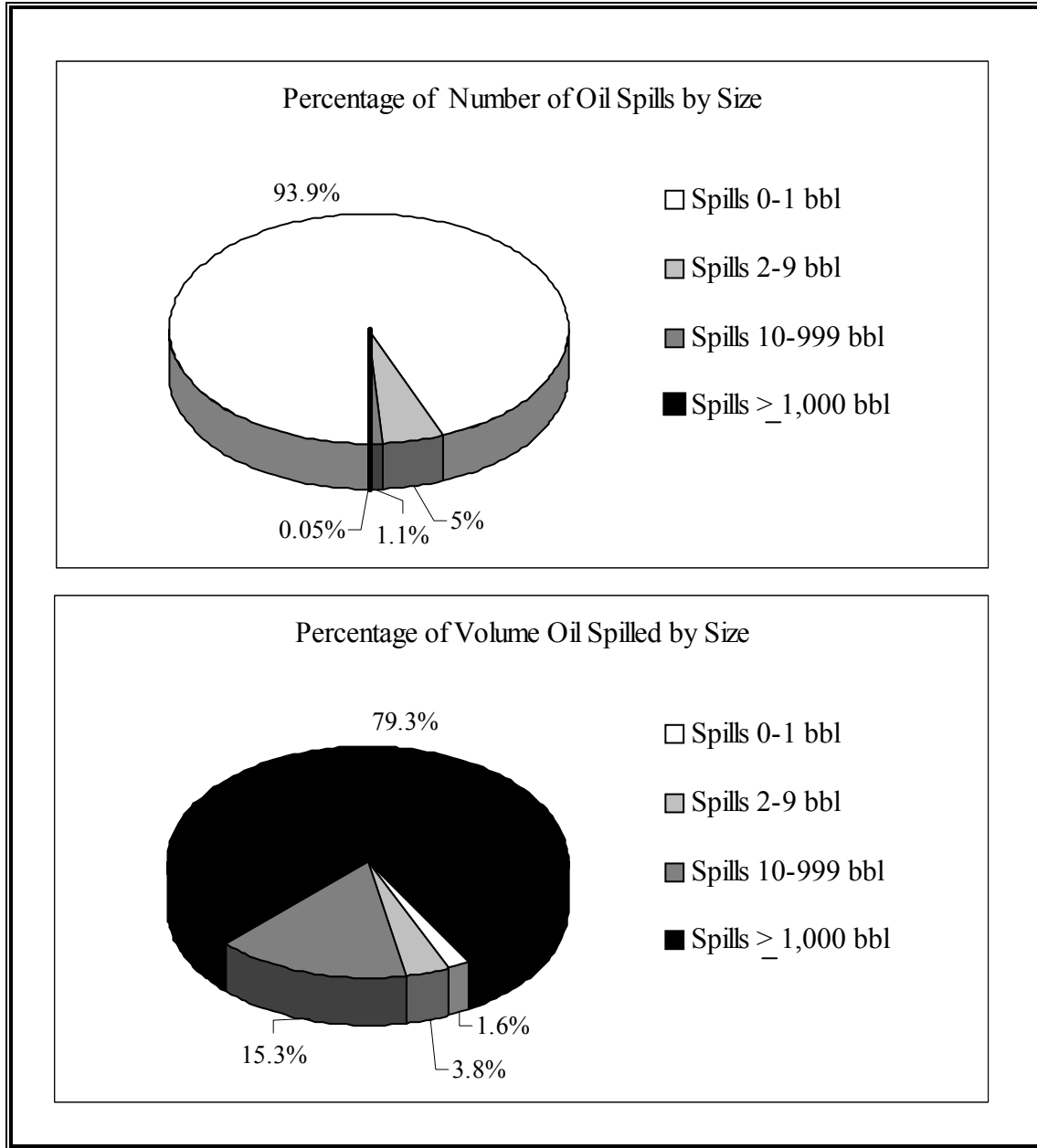


Figure 4-5. Study Area for Synthesis of Hard Mineral Resources on the Florida Panhandle Shelf.



Source: Anderson and LaBelle, 2000.

Figure 4-6. A Comparison of Spill Frequency and Spill Volume for Past OCS Spills by Size Category (1971-1999).

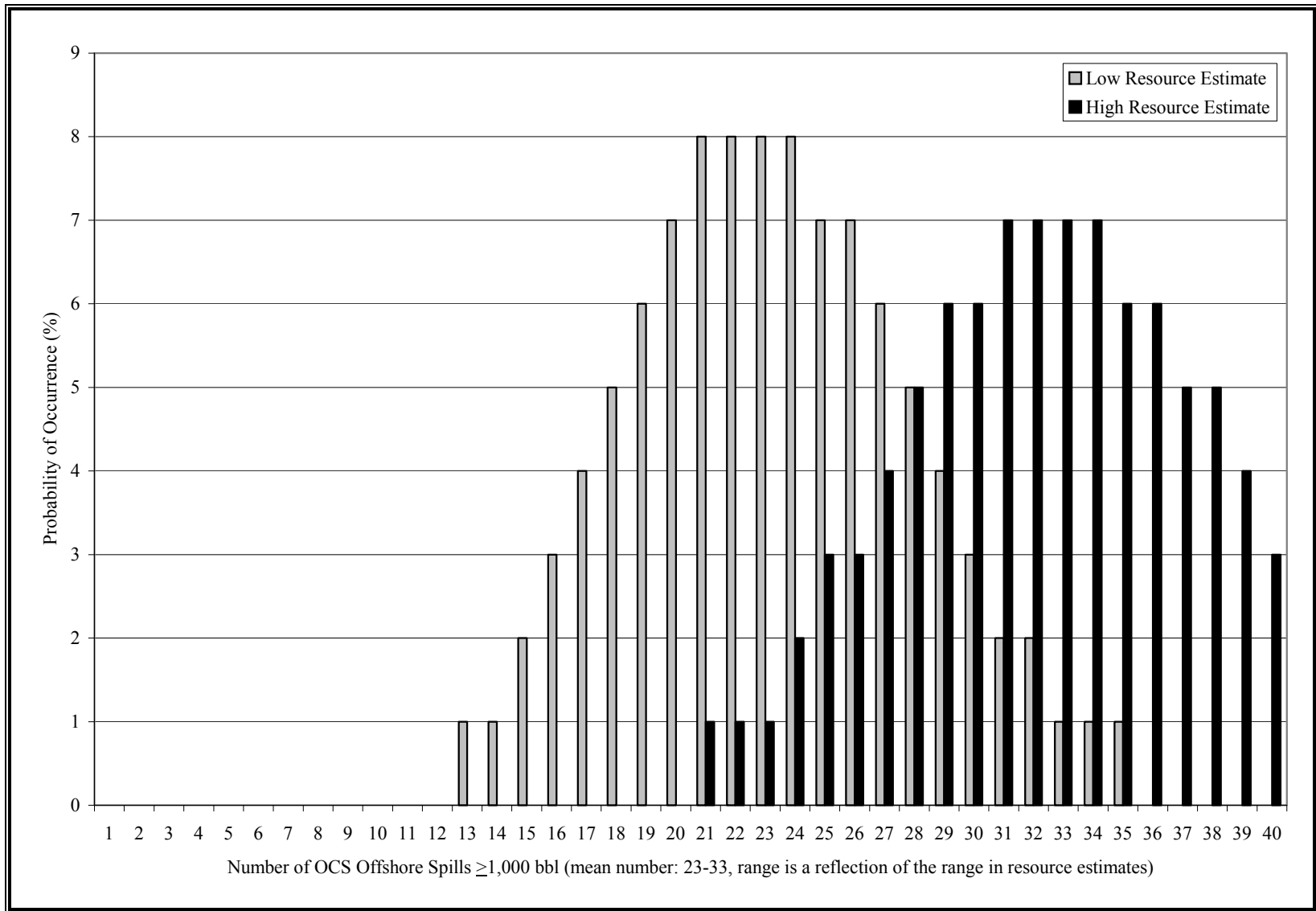


Figure 4-7. Probability of a Particular Number of Offshore Spills $\geq 1,000$ bbl Occurring as a Result of OCS Program Operations Gulfwide during the Years 2003-2042.

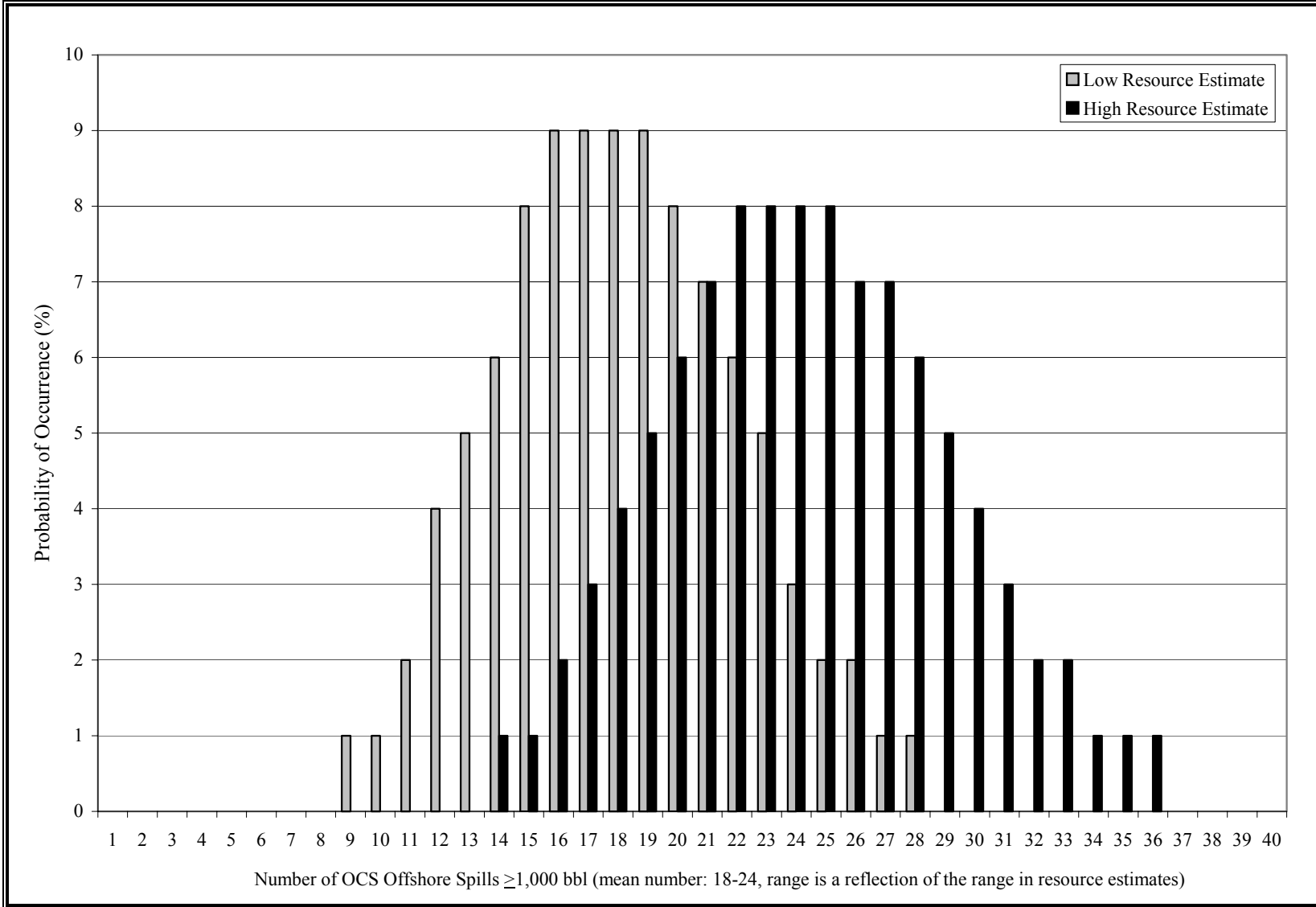


Figure 4-8. Probability of a Particular Number of Offshore Spills $\geq 1,000$ bbl Occurring as a Result of OCS Program Operations in the Central Planning Area during the Years 2003-2042.

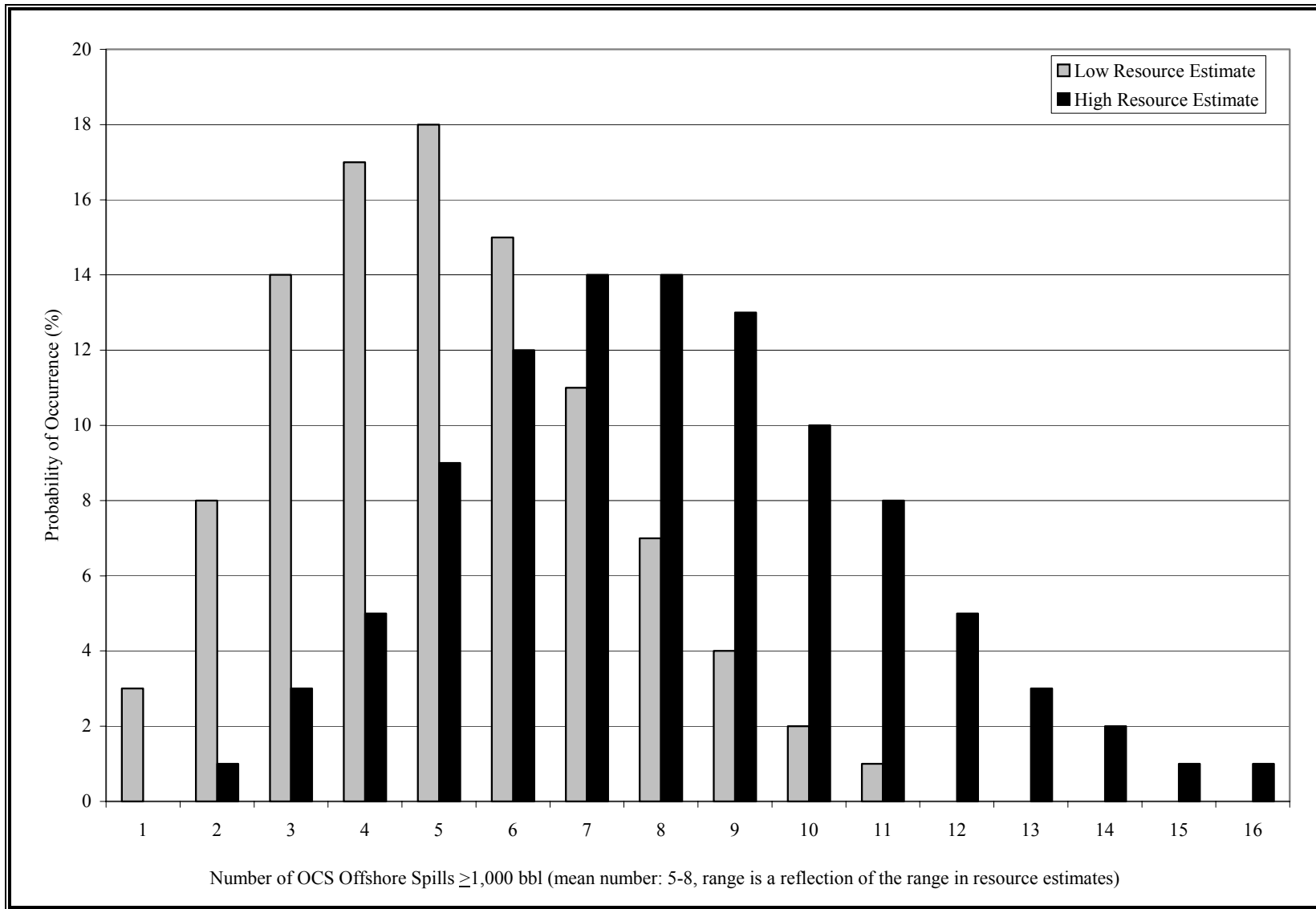


Figure 4-9. Probability of a Particular Number of Offshore Spills $\geq 1,000$ bbl Occurring as a Result of OCS Program Operations in the Western Planning Area during the Years 2003-2042.

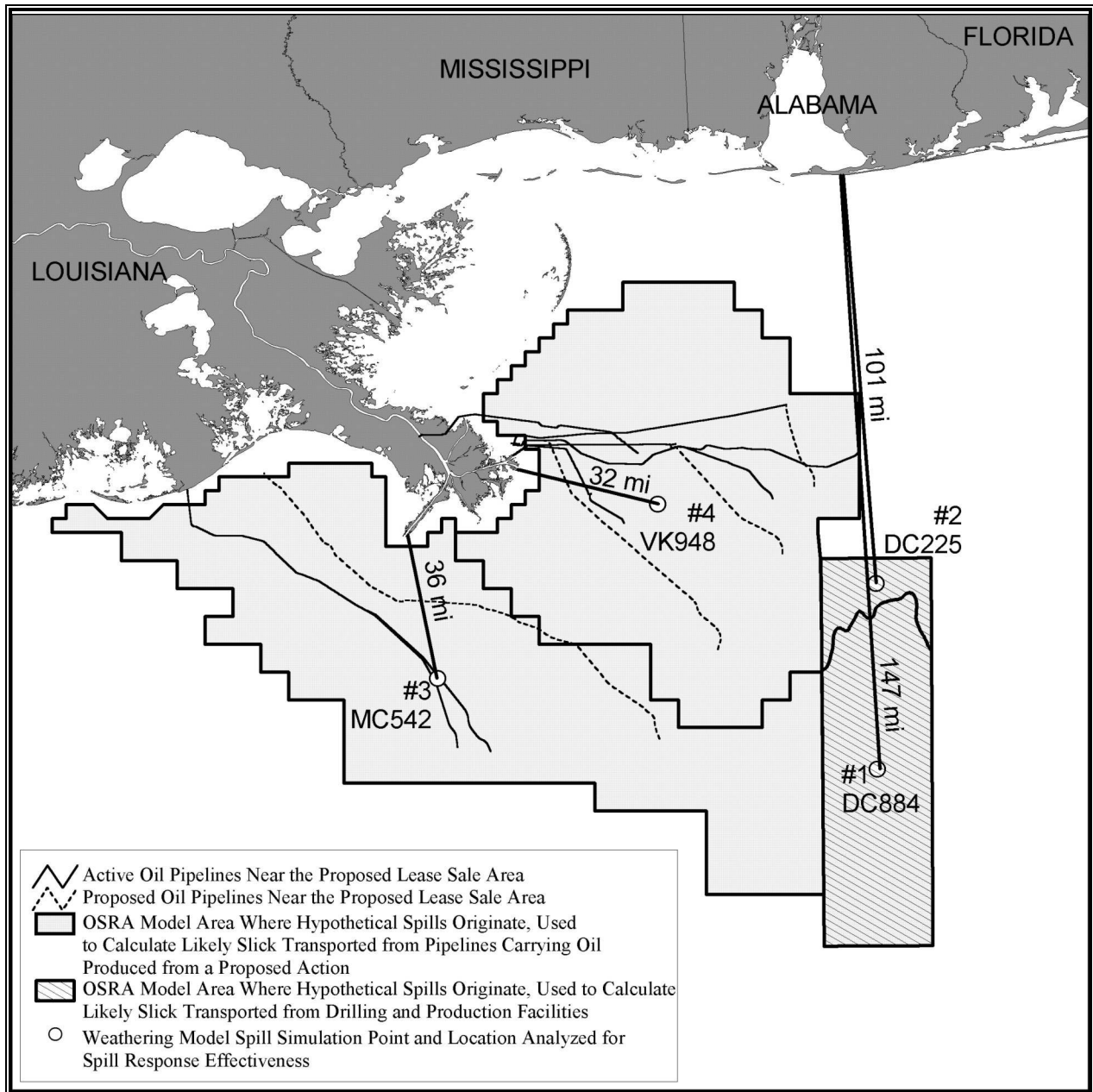


Figure 4-10. Study Area Used to Estimate Spill Risk Associated with a Proposed Action.

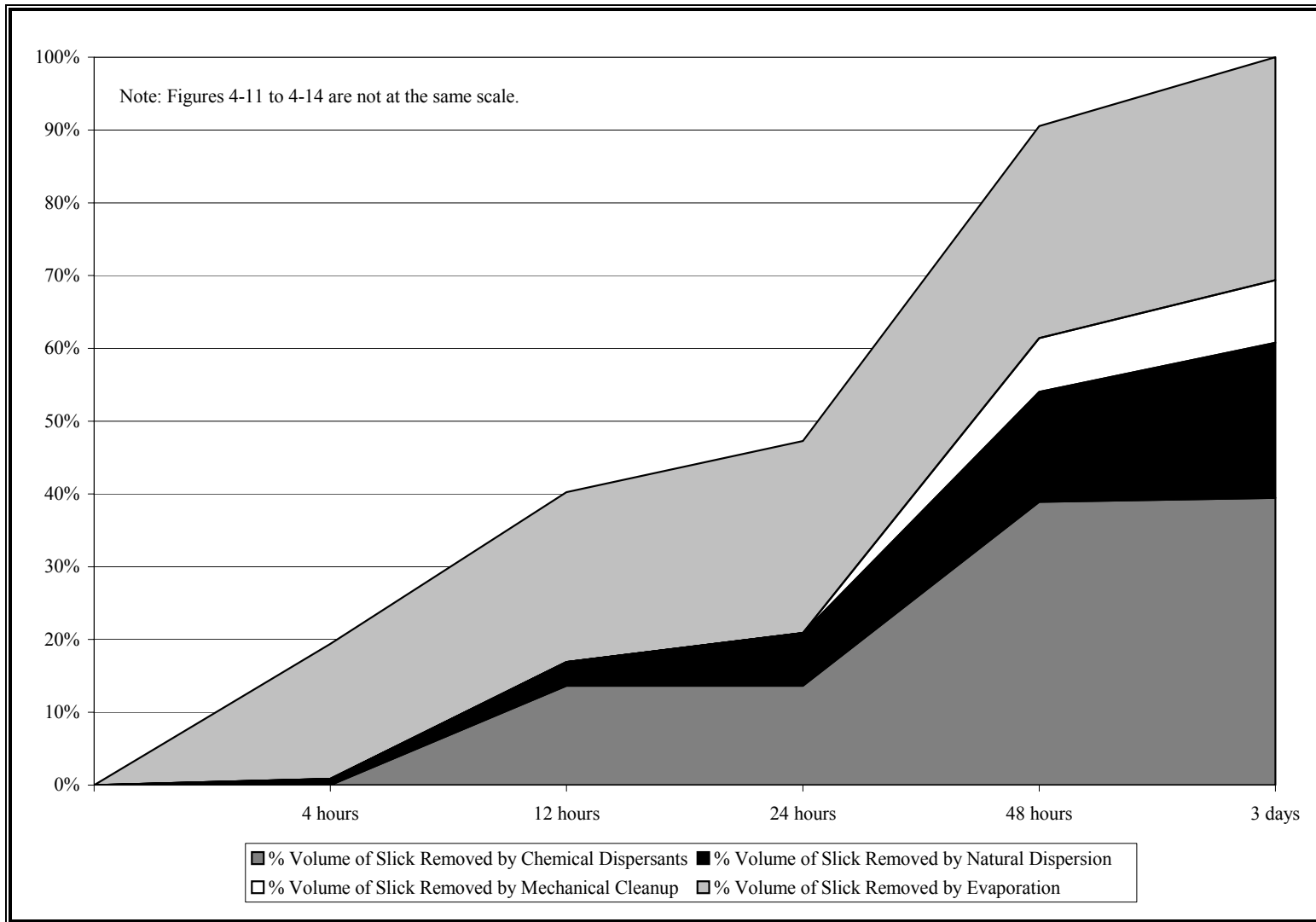


Figure 4-11. Mass Balance of a Hypothetical Spill of 4,600 bbl of a Likely Lighter Weight Crude Oil Spilled over 12 Hours from an OCS Pipeline Break at DeSoto Canyon Block 884 during Summer Conditions. (This scenario represents the minimum volume of oil remaining in a slick as a function of time for EPA conditions.)

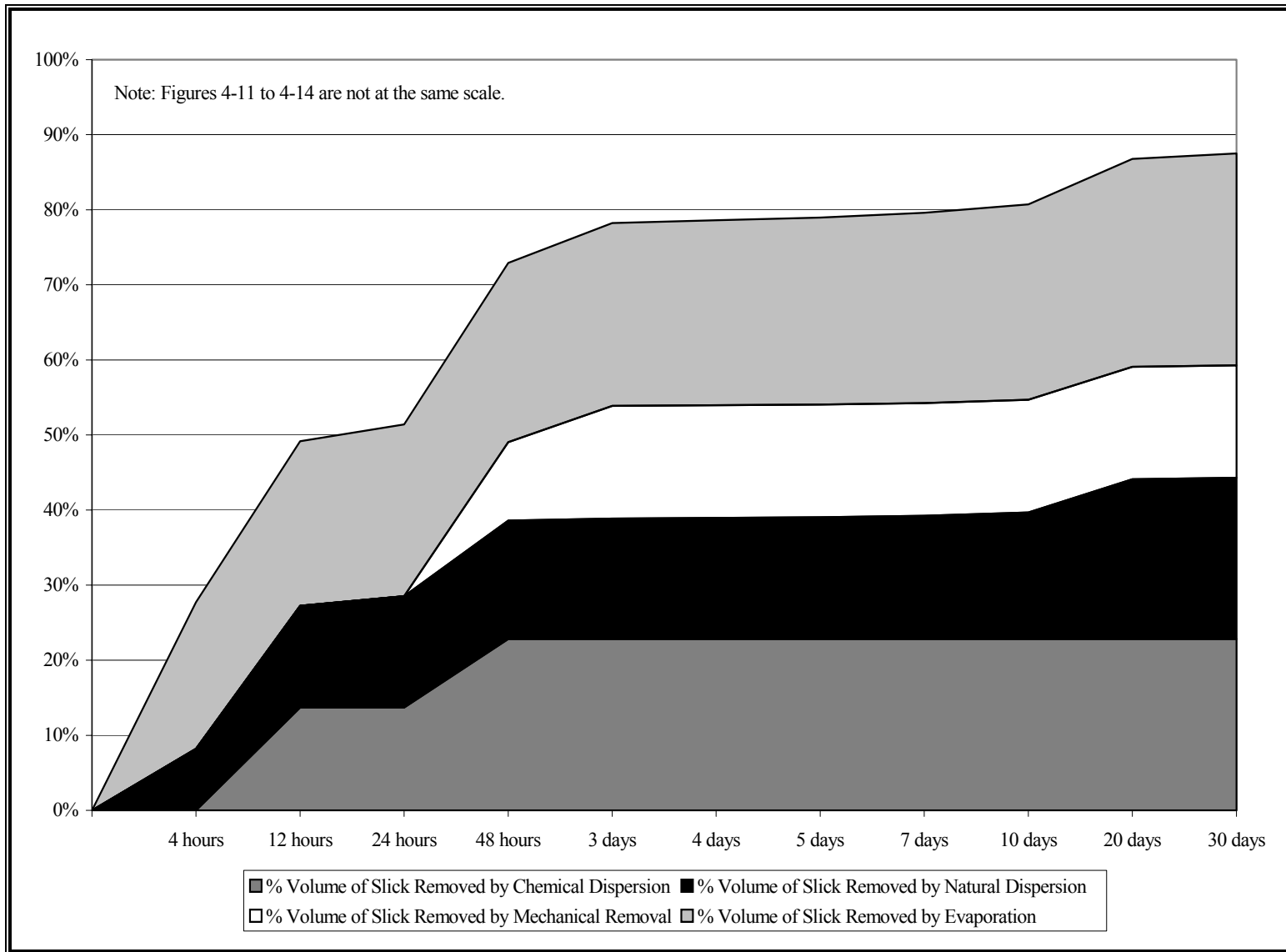


Figure 4-12. Mass Balance of a Hypothetical Spill of 4,600 bbl of a Likely Heavier Weight Crude Oil Spilled over 12 Hours from an OCS Pipeline Break at DeSoto Canyon Block 225 during Winter Conditions. (This scenario represents the maximum volume of oil remaining in slick as a function of time for EPA conditions.)

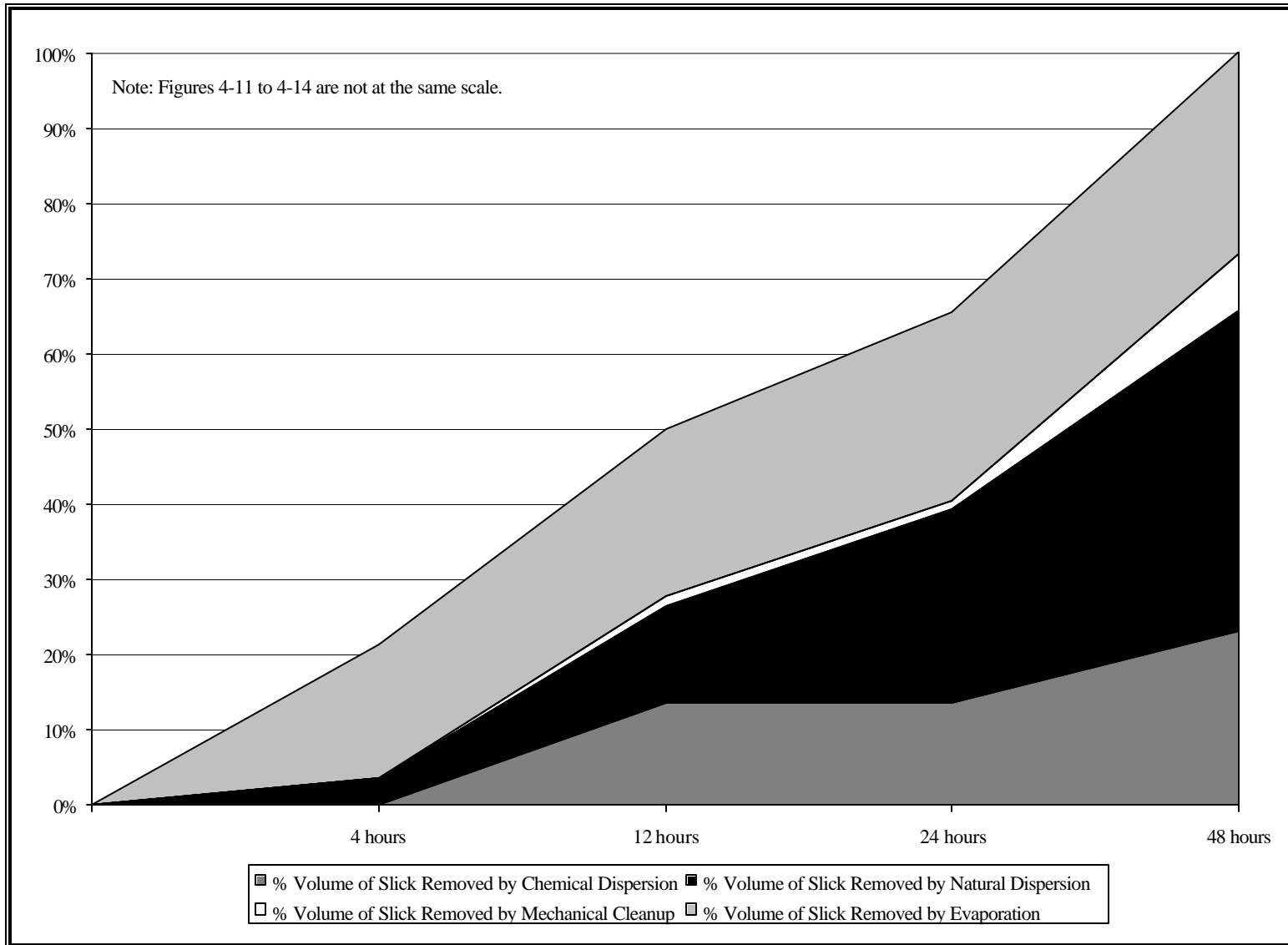


Figure 4-13. Mass Balance of a Hypothetical Spill of 4,600 bbl of a Likely Lighter Weight Crude Oil Spilled over 12 Hours from an OCS Pipeline Break at Mosca Knoll Block 948 during Winter Conditions. (This scenario represents the minimum volume of oil remaining in slick as a function of time for CPA conditions.)

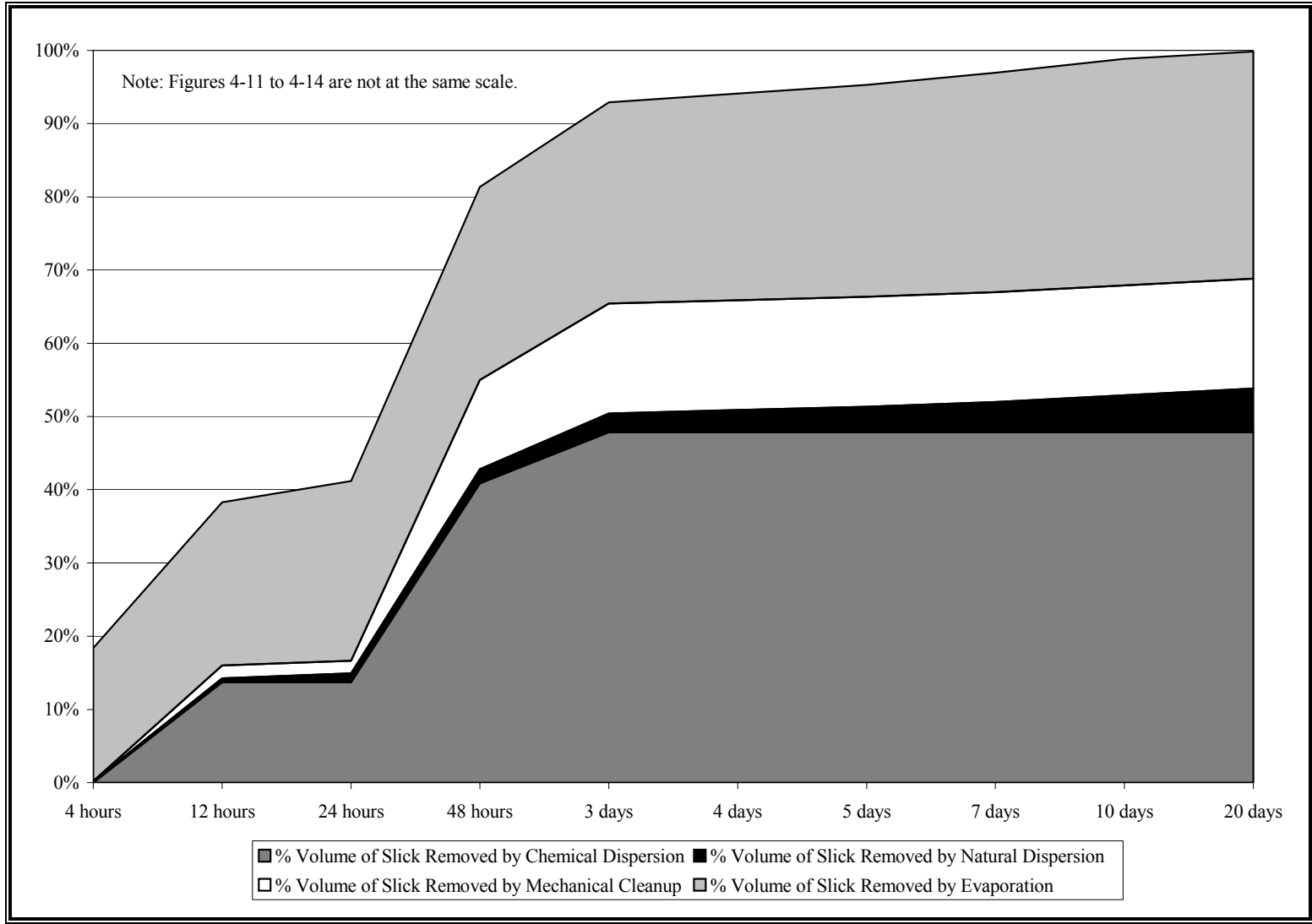


Figure 4-14. Mass Balance of a Hypothetical Spill of 4,600 bbl of a Likely Heavier Weight Crude Oil Spilled over 12 Hours from an OCS Pipeline Break at Mississippi Canyon Block 952 during Summer Conditions. (This scenario represents the maximum volume of oil remaining in slick as a function of time for CPA conditions.)

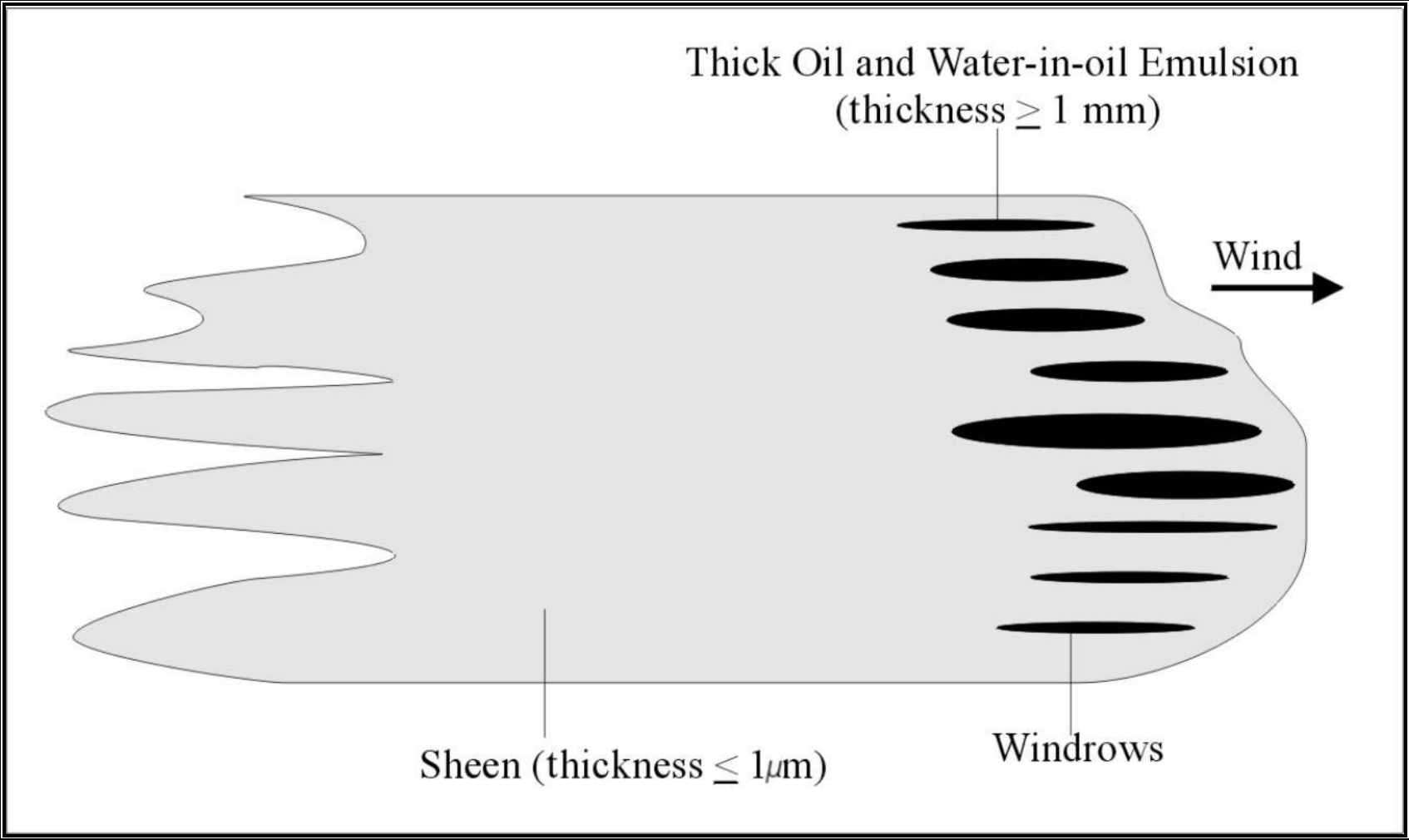


Figure 4-15. Typical Slick Shape.

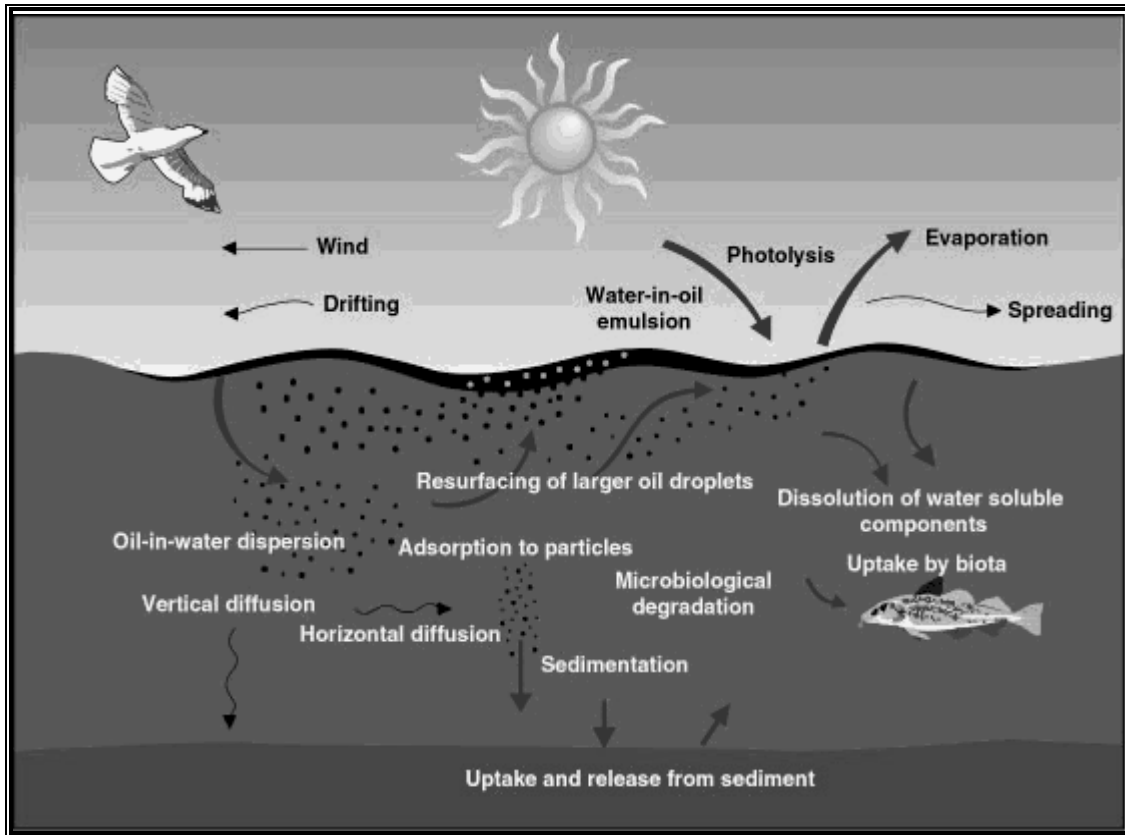


Figure 4-16. Oil Weathering at Sea.

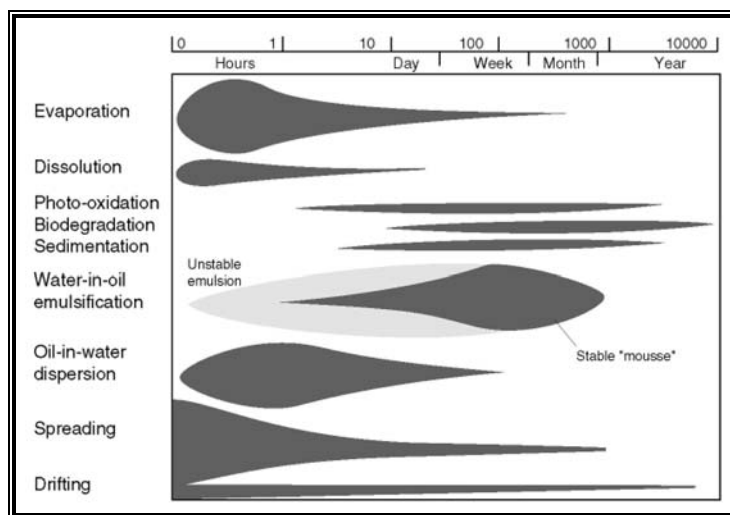


Figure 4-17. Relative Importance of Weathering Processes Over Time.

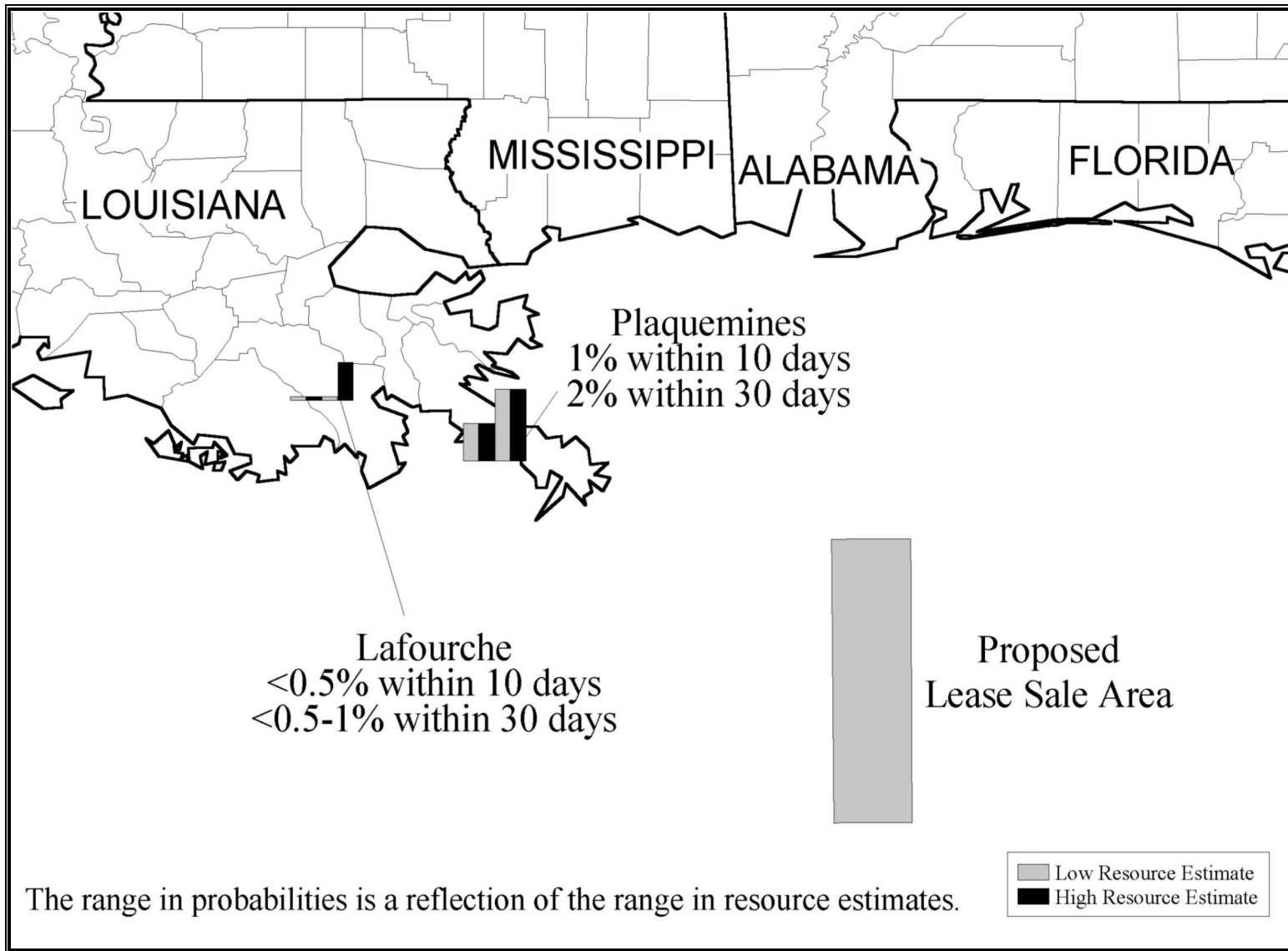


Figure 4-18. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Gulf States' Shorelines (by County and Parish) within 10 or 30 Days as a Result of a Proposed Action (only counties and parishes with greater than a 0.5% risk of contact within 10 or 30 days are shown).

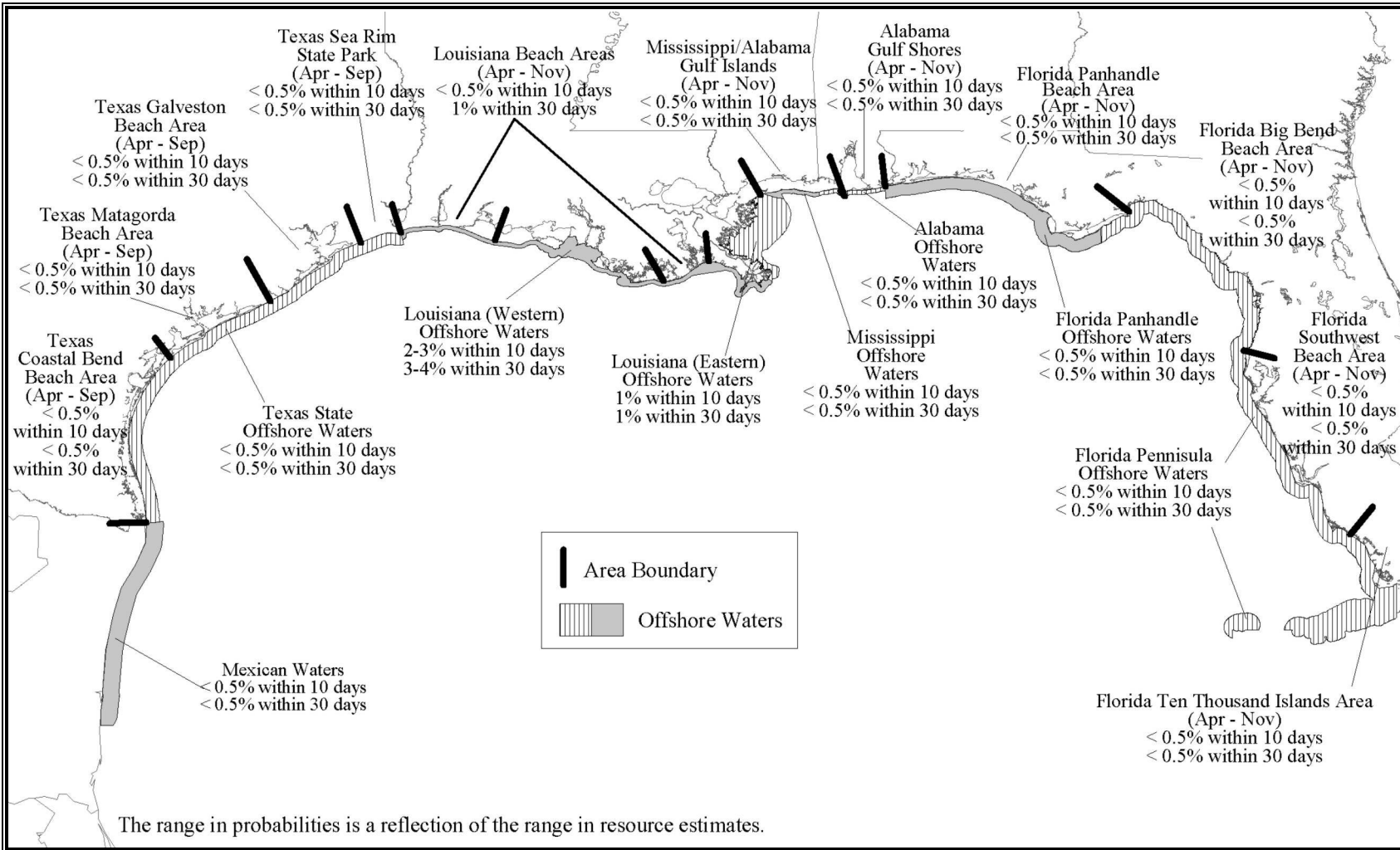


Figure 4-19. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Gulf States' Offshore Waters or Recreational Beach Areas within 10 or 30 Days as a Result of a Proposed Action.

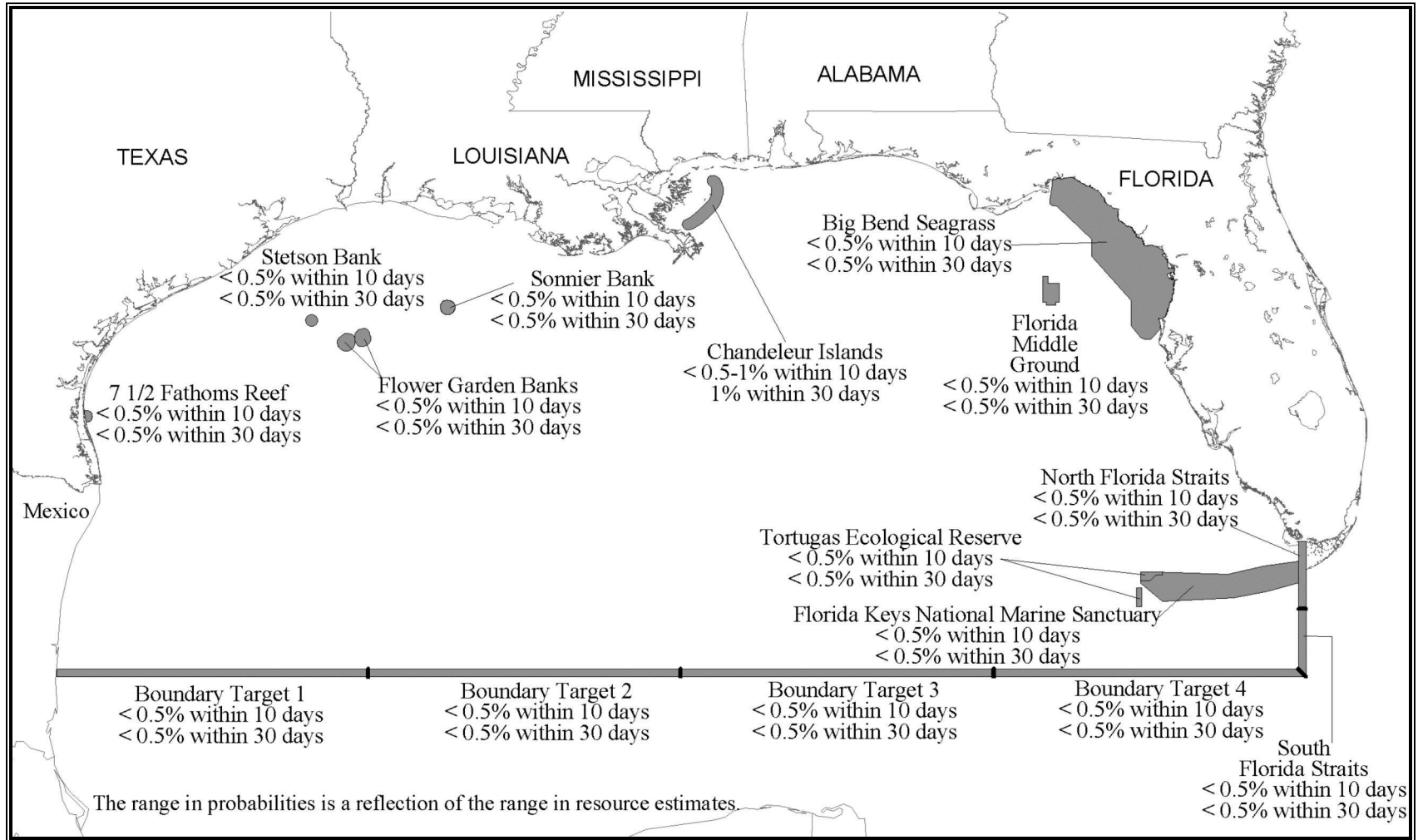


Figure 4-20. Probabilities of Offshore Spills (≥1,000 bbl) Occurring over the Life of a Proposed Action and Contacting the Surface Waters Overlying and Surrounding Offshore Environmental Features or Reaching Boundary Targets within 10 or 30 Days as a Result of a Proposed Action.

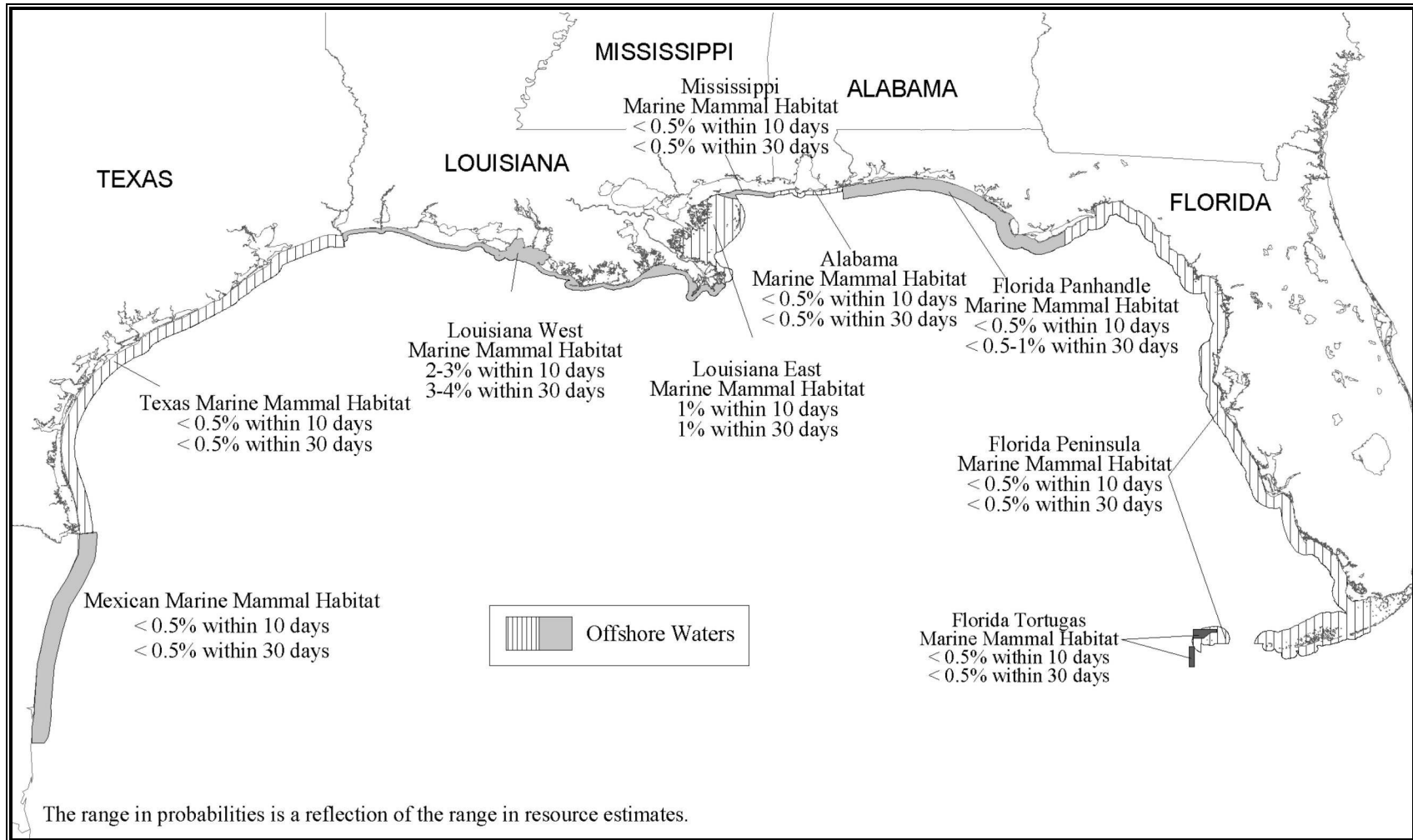


Figure 4-21. Probabilities of Offshore Spills (≥1,000 bbl) Occurring over the Life of a Proposed Action and Contacting Marine Mammal Habitats within 10 or 30 Days as a Result of a Proposed Action.

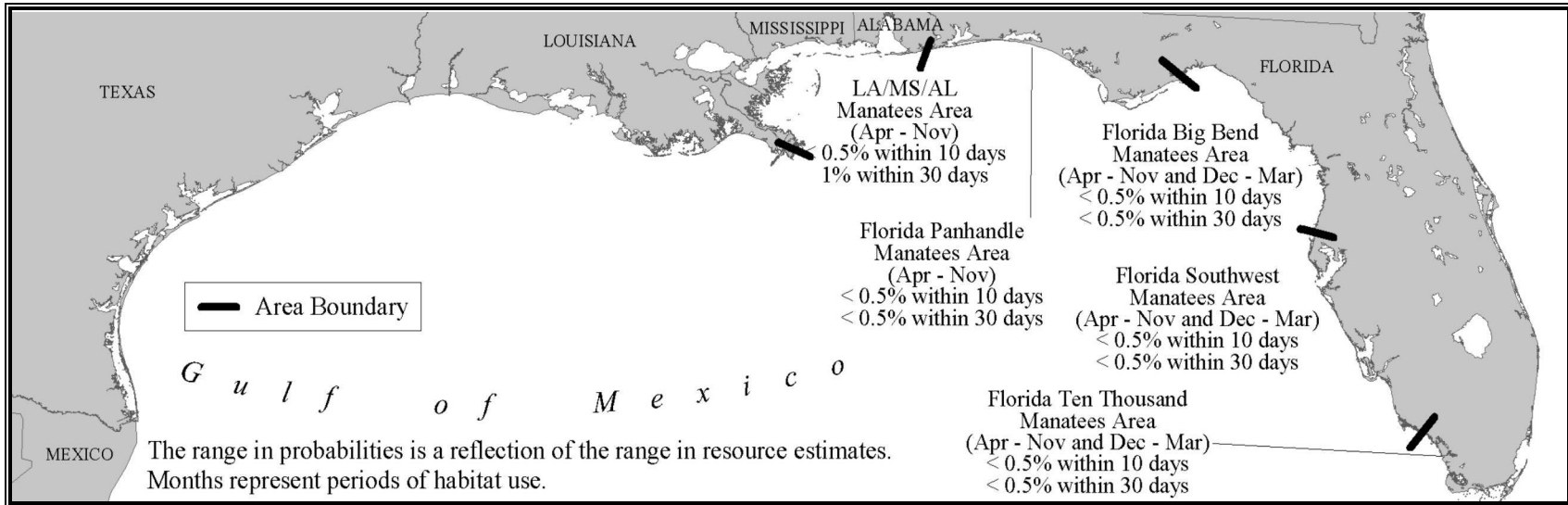


Figure 4-22. Probabilities of Offshore Spills (≥1,000 bbl) Occurring over the Life of a Proposed Action and Contacting Manatee Habitats within 10 or 30 Days as a Result of a Proposed Action.

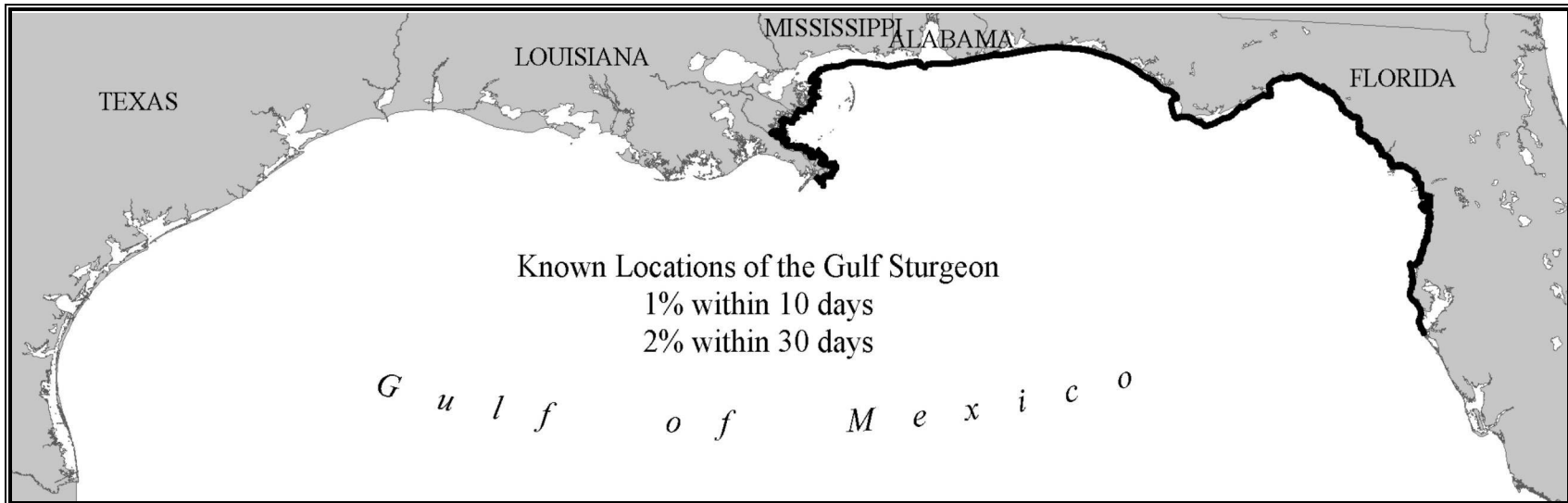


Figure 4-23. Probabilities of Offshore Spills (≥1,000 bbl) Occurring over the Life of a Proposed Action and Contacting Known Locations of Gulf Sturgeon within 10 or 30 Days as a Result of a Proposed Action.

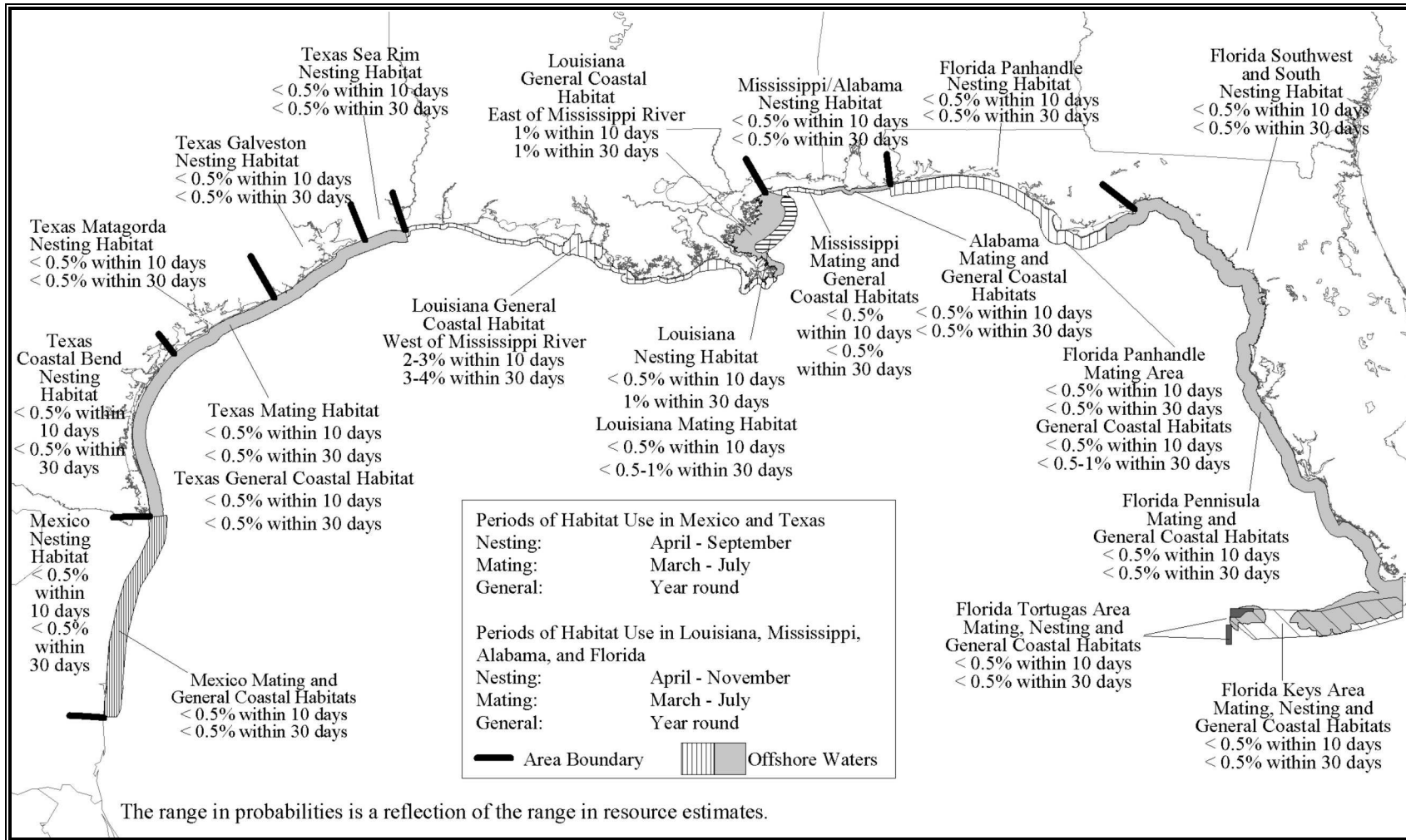


Figure 4-24. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Sea Turtle Habitats within 10 or 30 Days as a Result of a Proposed Action.

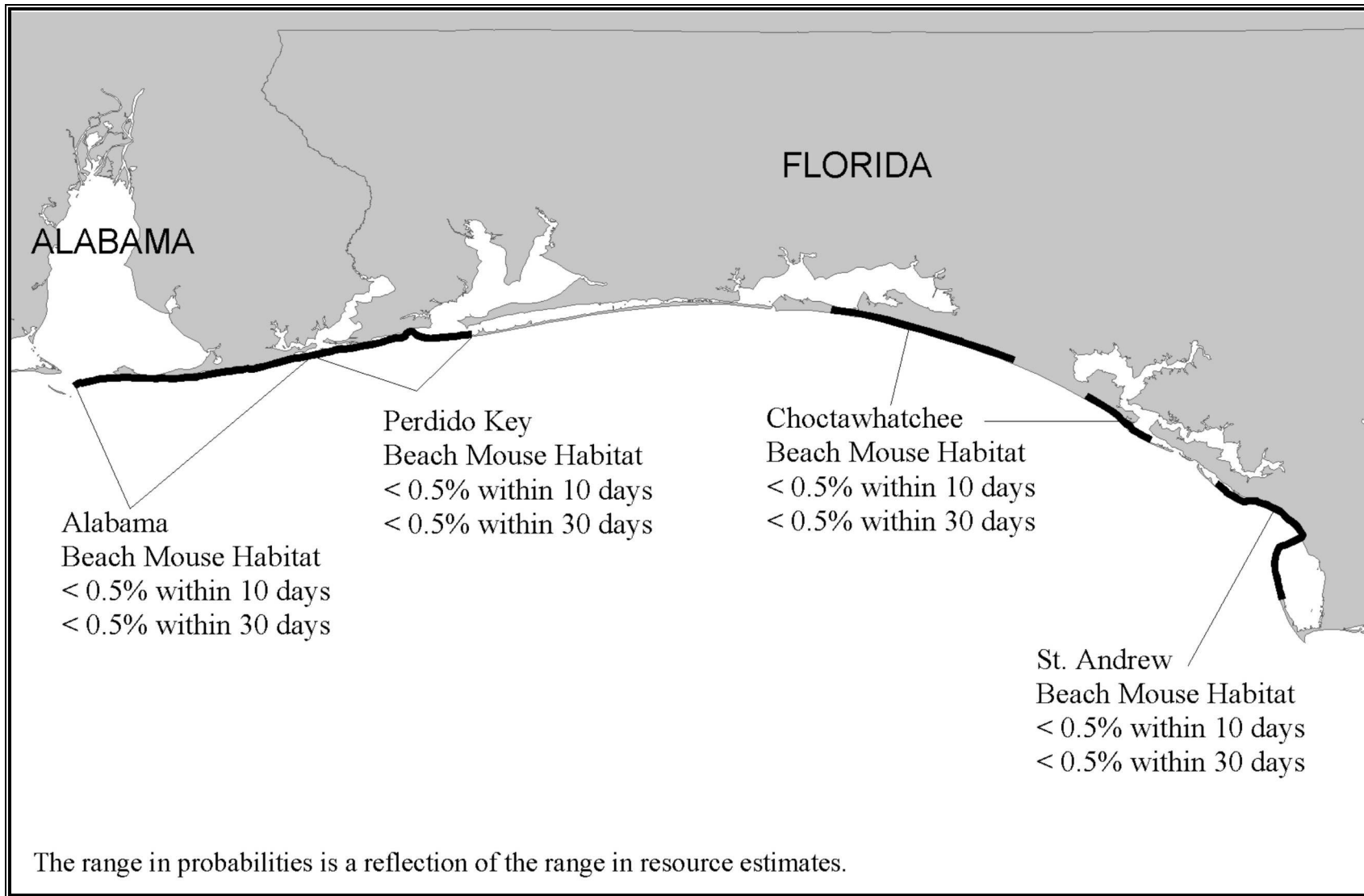


Figure 4-25. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Endangered Beach Mice Habitats within 10 or 30 Days as a Result of a Proposed Action.

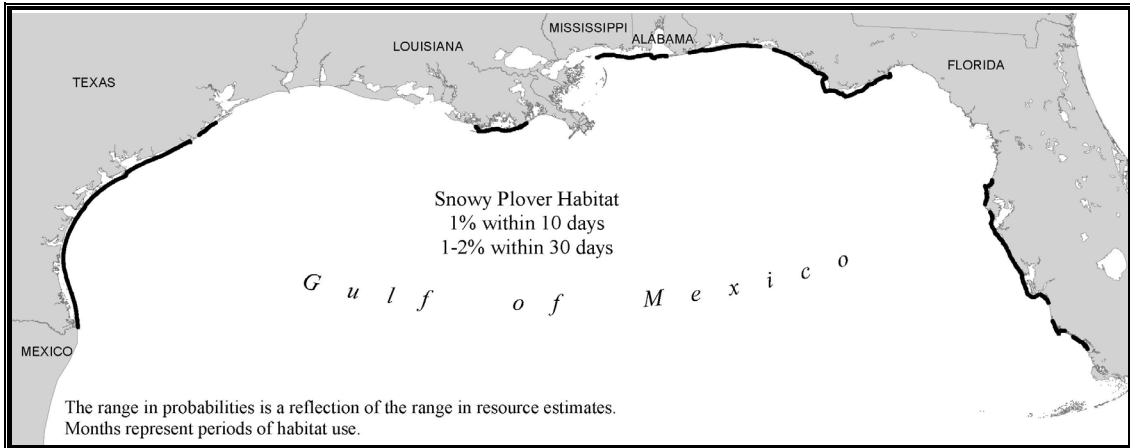


Figure 4-26. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Snowy Plover Habitat within 10 or 30 Days as a Result of a Proposed Action.

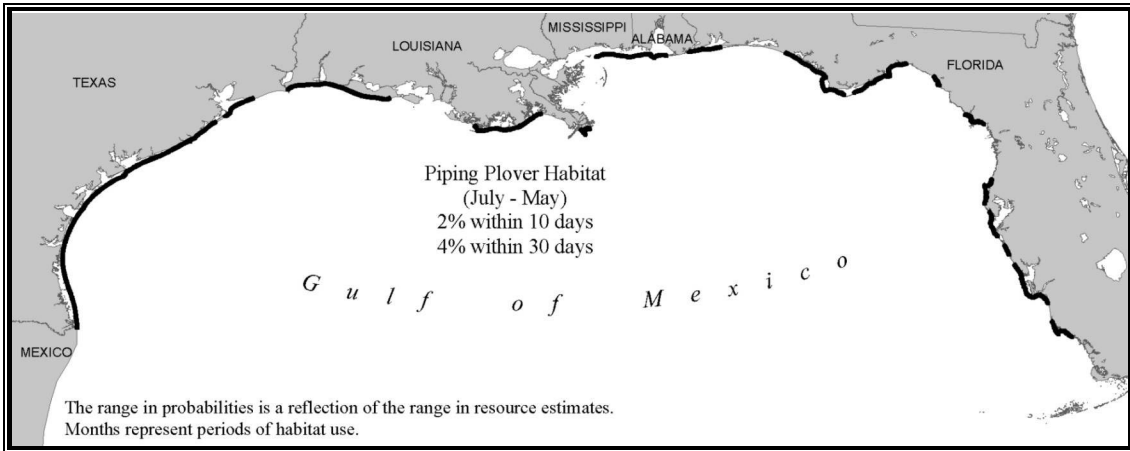


Figure 4-27. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Piping Plover Habitat within 10 or 30 Days as a Result of a Proposed Action.

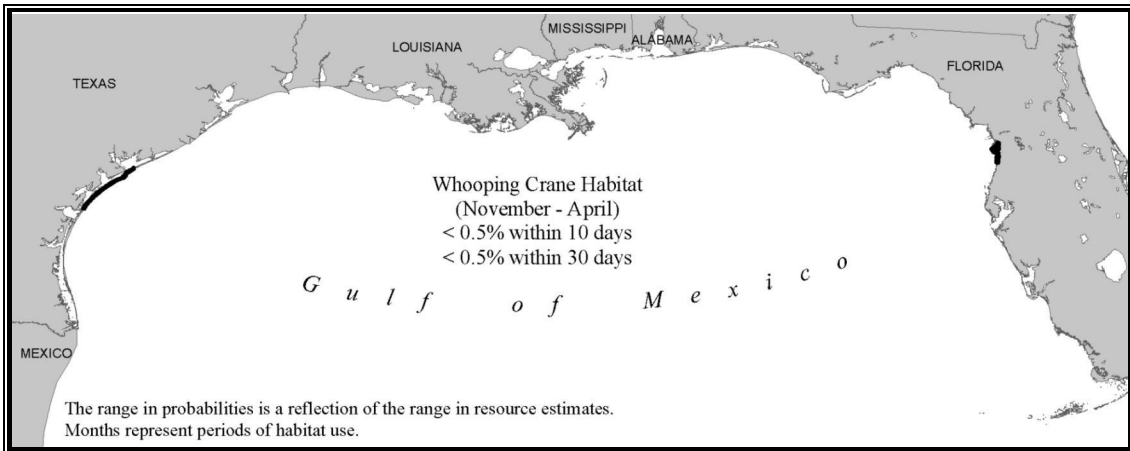


Figure 4-28. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Whooping Crane Habitat within 10 or 30 Days as a Result of a Proposed Action.

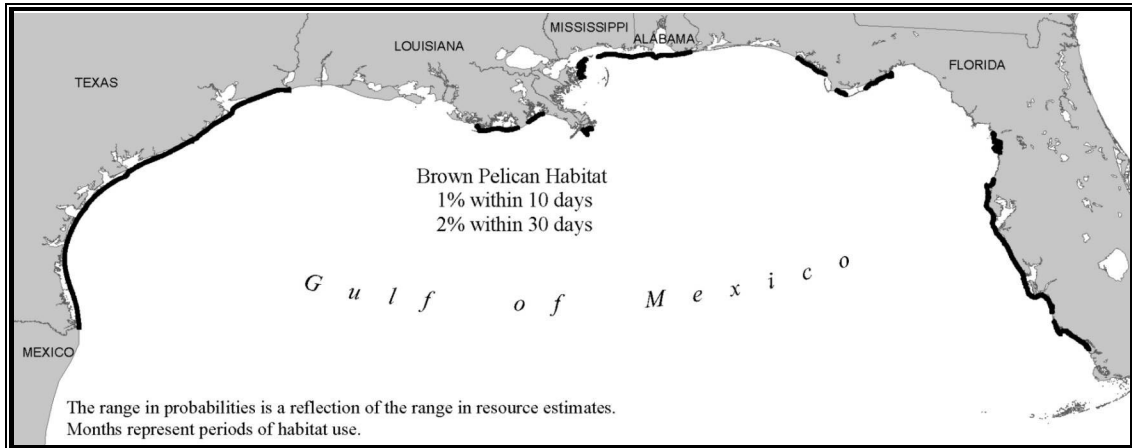


Figure 4-29. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Brown Pelican Habitat within 10 or 30 Days as a Result of a Proposed Action.

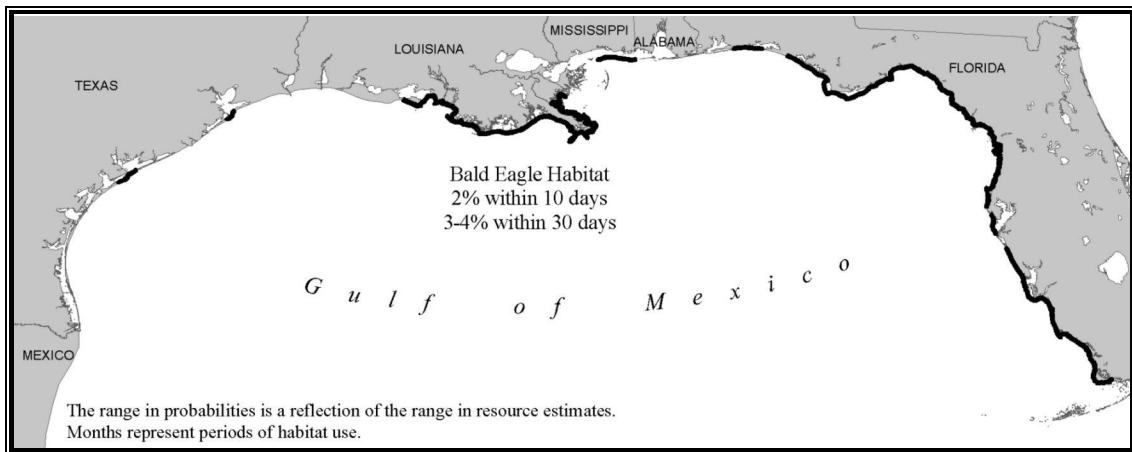


Figure 4-30. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Bald Eagle Habitat within 10 or 30 Days as a Result of a Proposed Action.

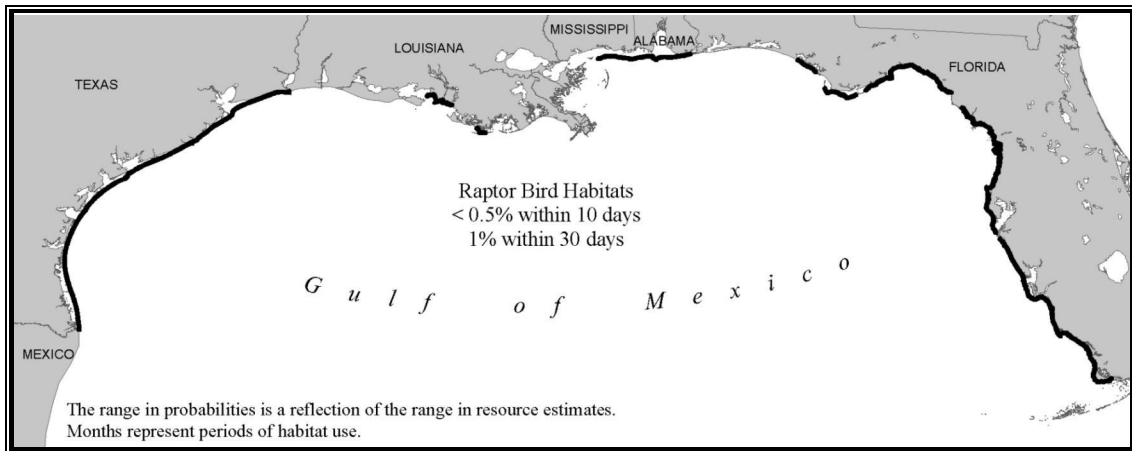


Figure 4-31. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Raptor Bird Habitats within 10 or 30 Days as a Result of a Proposed Action.

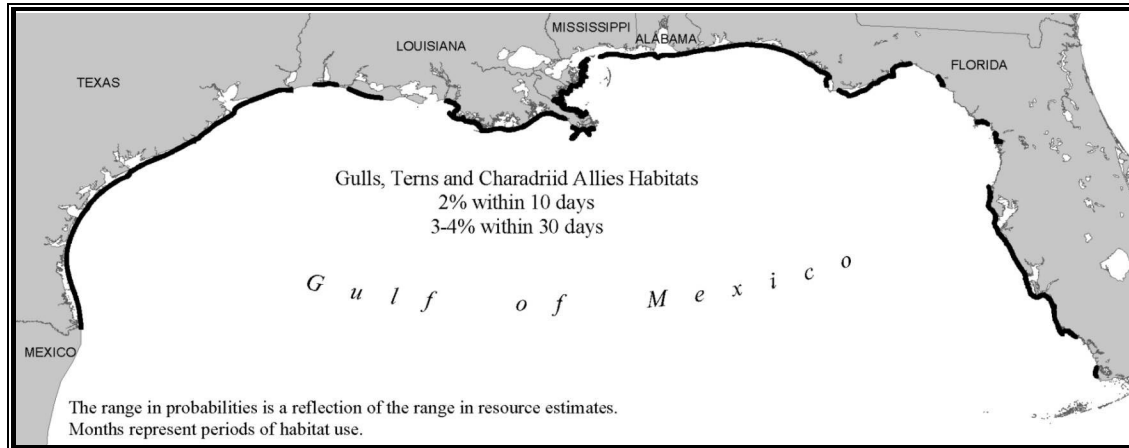


Figure 4-32. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Gull, Terns and Charadriid Allies Habitats within 10 or 30 Days as a Result of a Proposed Action.

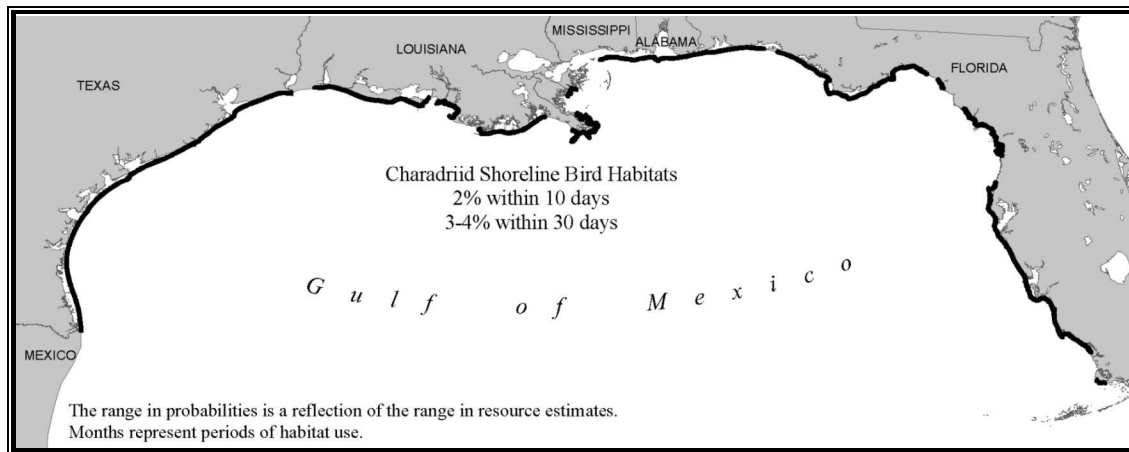


Figure 4-33. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Charadriid Shoreline Bird Habitats within 10 or 30 Days as a Result of a Proposed Action.

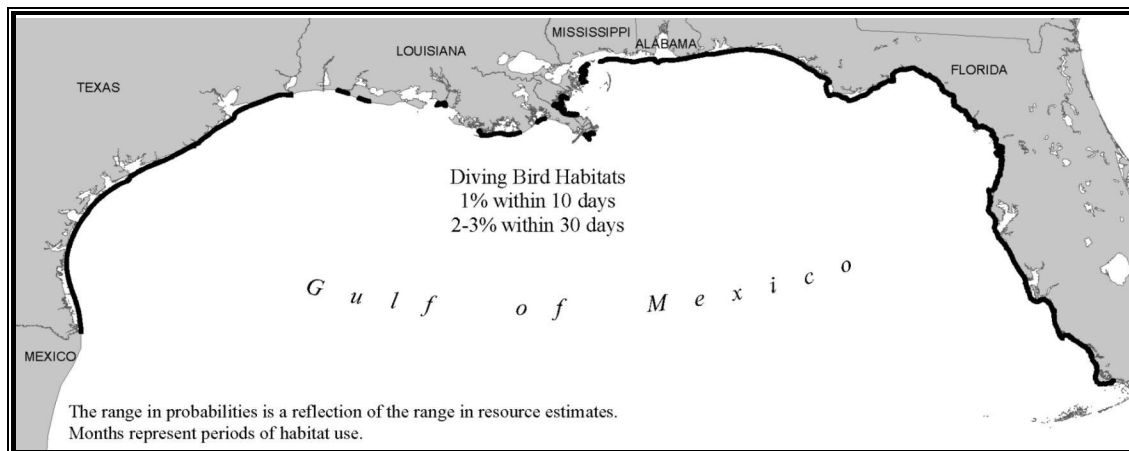


Figure 4-34. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Diving Bird Habitats within 10 or 30 Days as a Result of a Proposed Action.

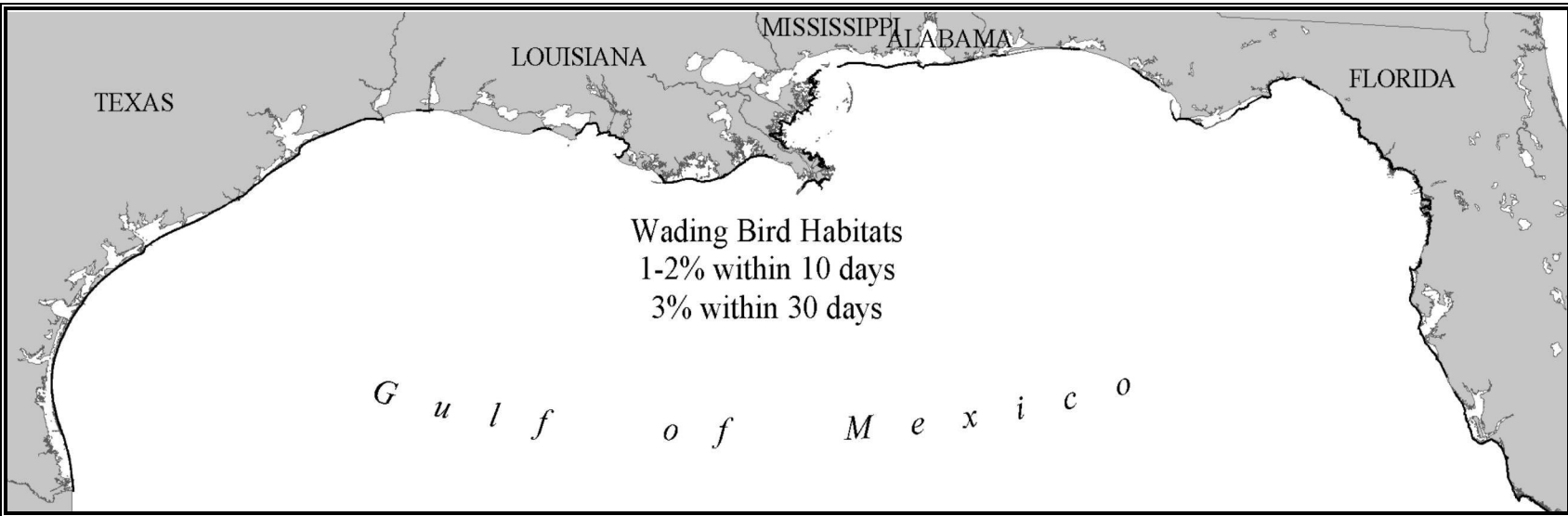


Figure 4-35. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Wading Bird Habitats within 10 or 30 Days as a Result of a Proposed Action.

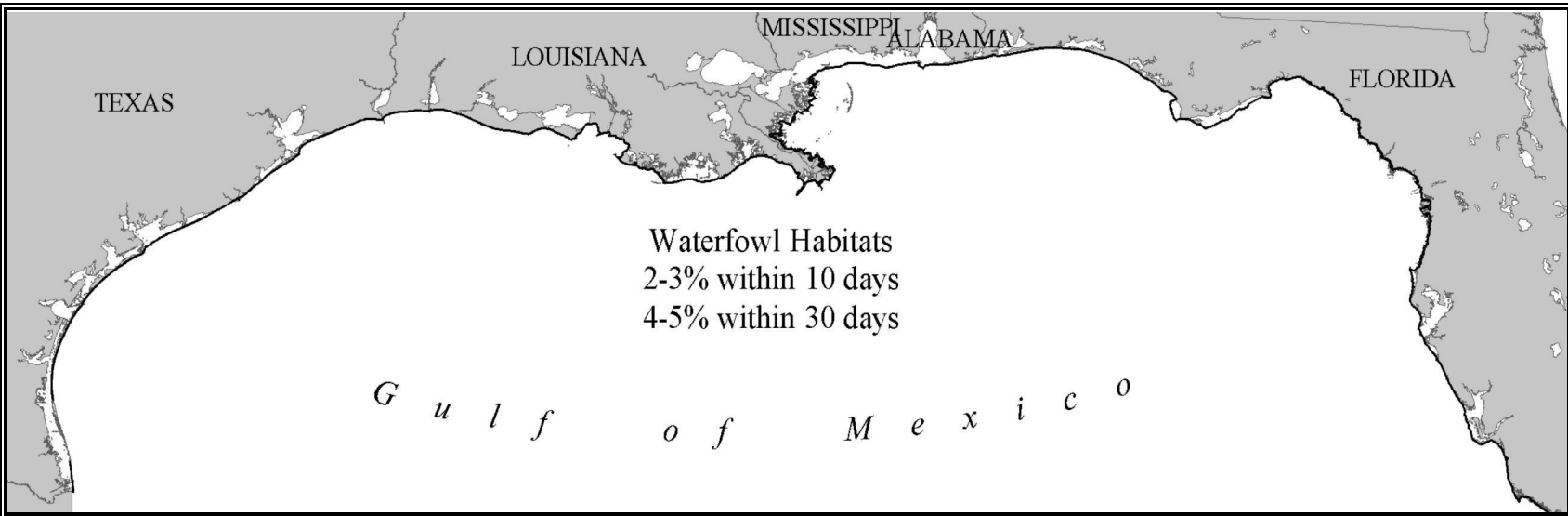


Figure 4-36. Probabilities of Offshore Spills ($\geq 1,000$ bbl) Occurring over the Life of a Proposed Action and Contacting Waterfowl Habitats within 10 or 30 Days as a Result of a Proposed Action.