

Gulf of Mexico Regional OCS Oil and Gas Programmatic EIS

Potential Impacts to Biological Resources from a Single OCS Oil and Gas Lease Sale

Coastal Communities and Habitats

Reduced area of impact 

Area of Impact	Alternative A	Alternative B	Alternative C	Alternative D
Routine Impacts <i>in leased areas</i>	none	• → • Negligible adverse to minor adverse	• → • Negligible adverse to minor adverse	• → • Negligible adverse to minor adverse
Routine Impacts <i>in excluded areas</i>	none	• → • Negligible adverse to minor adverse	• → • Negligible adverse to minor adverse	• → • Negligible adverse to minor adverse
Accidental Impacts <i>in leased areas</i>	none	• → • Negligible adverse to moderate adverse ^[1]	• → • Negligible adverse to moderate adverse	• → • Negligible adverse to moderate adverse
Accidental Impacts <i>in excluded areas</i>	none	• → • Negligible adverse to moderate adverse ^[1]	• → • Negligible adverse to moderate adverse ^[2]	• → • Negligible adverse to moderate adverse ^[3]

1. Impacts primarily associated with the slight risk of large spills and associated response activities affecting coastal communities and habitats. However, trends and OSRA analyses show that most spills (>95%) are 1 bbl or less, and small spills (<1,000 bbl) would likely weather and disperse before reaching coastal communities and habitats.
2. Decreased potential for oil spills and response activities to affect coastal habitats adjacent to the exclusion areas, including substantial areas along Texas and Louisiana, and all areas along the Mississippi and Alabama coast.
3. Further decreased potential for oil spills and response activities to affect coastal habitats adjacent to the exclusion areas, including all areas along the Texas, Mississippi, and Alabama coast, and most areas along the Louisiana coast.

Range of Impact Levels













- Major Adverse
- Moderate Adverse
- Minor Adverse
- Negligible Adverse

For more information, visit the [GOM Oil and Gas Programmatic EIS webpage](#).

Benthic Communities and Habitats and Protected Corals




Reduced area of impact



Area of Impact	Alternative A	Alternative B	Alternative C	Alternative D
Routine Impacts without BOEM Protective Measures in leased areas	none	 Negligible adverse to major adverse	 Negligible adverse to major adverse	 Negligible adverse to major adverse
Routine Impacts with BOEM Protective Measures in leased areas	none	 Negligible adverse to minor adverse	 Negligible adverse to minor adverse	 Negligible adverse to minor adverse
Routine Impacts in excluded areas	none	none	none	none
Accidental Impacts in leased areas	none	 Negligible adverse to major adverse	 Negligible adverse to major adverse	 Negligible adverse to major adverse
Accidental Impacts in excluded areas ¹	none	 Negligible adverse to major adverse	 Negligible adverse to major adverse	 Negligible adverse to major adverse

1. Oil spills and spill response could occur in or move through excluded areas.

Range of Impact Levels

-  Major Adverse
-  Moderate Adverse
-  Minor Adverse
-  Negligible Adverse

For more information, visit the [GOM Oil and Gas Programmatic EIS webpage](#).

Pelagic Communities and Habitats



Area of Impact	Alternative A	Alternative B ^[2]	Alternative C ^[2]	Alternative D ^[2]
Routine Impacts <i>in leased areas</i>	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse
Routine Impacts <i>in excluded areas</i>	none	● → ● Negligible adverse to minor adverse	none	none
Accidental Impacts <i>in leased areas</i>	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse
Accidental Impacts <i>in excluded areas</i> ^[1]	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse

1. Vessel strikes and oil spills could still occur in the excluded areas.
2. Overall impacts are due to the localized nature of the effects compared to the basin-wide distribution of plankton and Sargassum in the northern GOM.



















Range of Impact Levels

● Major Adverse	● Moderate Adverse	● Minor Adverse	● Negligible Adverse
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For more information, visit the [GOM Oil and Gas Programmatic EIS webpage](#).





Fishes and Invertebrates

Reduced area of impact 

Area of Impact	Alternative A	Alternative B	Alternative C ^[1]	Alternative D ^[2]
Routine Impacts <i>without</i> BOEM Protective Measures <i>in leased areas</i>	none	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse
Routine Impacts <i>with</i> BOEM Protective Measures <i>in leased areas</i>	none	 Minor adverse	 Minor adverse	 Minor adverse
Routine Impacts <i>without</i> BOEM Protective Measures <i>in excluded areas</i>	none	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse
Routine Impacts <i>with</i> BOEM Protective Measures <i>in excluded areas</i>	none	 Minor adverse	 Minor adverse	 Minor adverse
Accidental Impacts <i>in leased areas</i>	none	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse
Accidental Impacts <i>in excluded areas</i>	none	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse

- Alternative C would provide greater protection than Alternative B for highly productive and diverse fish and invertebrate assemblages, including recreationally and commercially managed finfish species, known to inhabit hard bottom habitats like topographic and pinnacle trend features found in the areas excluded from leasing.
- Alternative D may further reduce impacts of Alternative C specific to coastal and estuarine fishes and invertebrates due to additional exclusion areas in nearshore waters.











Range of Impact Levels

 Major Adverse
  Moderate Adverse
  Minor Adverse
  Negligible Adverse

For more information, visit the [GOM Oil and Gas Programmatic EIS webpage](#).





Birds

Reduced area of impact 

Area of Impact	Alternative A	Alternative B	Alternative C ^[2]	Alternative D ^[2]
Routine Impacts <i>in leased areas</i>	none	 Negligible adverse to minor adverse	 Negligible adverse to minor adverse	 Negligible adverse to minor adverse
Routine Impacts <i>in excluded areas</i>	none	 Negligible adverse to minor adverse	none	none
Accidental Impacts <i>in leased areas</i> ^[1]	none	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse
Accidental Impacts <i>in excluded areas</i> ^[1]	none	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse	 Negligible adverse to moderate adverse

1. Impact levels for oil spills are dependent on their frequency, duration, geographic extent, and mitigation effectiveness.
2. Alternatives C and D would not directly or indirectly influence the impact conclusions for birds, including ESA-listed species, because of their abundance and basin-wide distribution across the northern GOM.

Range of Impact Levels

 Major Adverse
  Moderate Adverse
  Minor Adverse
  Negligible Adverse

For more information, visit the [GOM Oil and Gas Programmatic EIS webpage](#).

Marine Mammals

Reduced area of impact



Area of Impact	Alternative A	Alternative B	Alternative C ^[2]	Alternative D ^[2]
Routine Impacts <i>without</i> BOEM Protective Measures <i>in leased areas</i>	none	● → ● Negligible adverse to moderate adverse	● → ● Negligible adverse to moderate adverse	● → ● Negligible adverse to moderate adverse
Routine Impacts <i>with</i> BOEM Protective Measures <i>in leased areas</i>	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse
Routine Impacts <i>without</i> BOEM Protective Measures <i>in excluded areas</i>	none	● → ● Negligible adverse to moderate adverse	none, except noise ^[3]	none, except noise ^[3]
Routine Impacts <i>with</i> BOEM Protective Measures <i>in excluded areas</i>	none	● → ● Negligible adverse to minor adverse	none, except noise ^[4]	none, except noise ^[4]
Accidental Impacts <i>without</i> BOEM Protective Measures <i>in leased areas</i>	none	● → ● Negligible adverse to major adverse	● → ● Negligible adverse to major adverse	● → ● Negligible adverse to major adverse
Accidental Impacts <i>with</i> BOEM Protective Measures <i>in leased areas</i>	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse
Accidental Impacts <i>without</i> BOEM Protective Measures <i>in excluded areas</i> ^[1]	none	● → ● Negligible adverse to major adverse	● → ● Negligible adverse to major adverse	● → ● Negligible adverse to major adverse
Accidental Impacts <i>with</i> BOEM Protective Measures <i>in excluded areas</i> ^[1]	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse

- Oil spills, spill response, and vessel strikes could occur in or move through excluded areas.
- Alternatives C and D would not change the overall impact conclusions for marine mammals given their wide distribution across the GOM, transitory use of the excluded areas, and because impacts from some IPFs (Impact Producing Factors) (e.g., vessel strikes and oil spills) could still occur in the excluded areas.
- Impacts from noise may travel from the sound source into excluded areas resulting in negligible to moderate impacts without the application of BOEM protective measures.
- Impacts from noise may travel from the sound source into excluded areas resulting in negligible to minor impacts with the application of BOEM protective measures.

Range of Impact Levels

● Major Adverse
 ● Moderate Adverse
 ● Minor Adverse
 ● Negligible Adverse

For more information, visit the [GOM Oil and Gas Programmatic EIS webpage](#).

Sea Turtles

Reduced area of impact

Area of Impact	Alternative A	Alternative B	Alternative C ^[2, 3]	Alternative D ^[2, 4]
Routine Impacts <i>without</i> BOEM Protective Measures <i>in leased areas</i>	none	● → ● Negligible adverse to moderate adverse	● → ● Negligible adverse to moderate adverse	● → ● Negligible adverse to moderate adverse
Routine Impacts <i>with</i> BOEM Protective Measures <i>in leased areas</i>	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse
Routine Impacts <i>without</i> BOEM Protective Measures <i>in excluded areas</i>	none	● → ● Negligible adverse to moderate adverse	none, except noise ^[5]	none, except noise ^[5]
Routine Impacts <i>with</i> BOEM Protective Measures <i>in excluded areas</i>	none	● → ● Negligible adverse to minor adverse	none, except noise ^[6]	none, except noise ^[6]
Accidental Impacts <i>without</i> BOEM Protective Measures <i>in leased areas</i>	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse
Accidental Impacts <i>with</i> BOEM Protective Measures <i>in leased areas</i>	none	● Negligible adverse	● Negligible adverse	● Negligible adverse
Accidental Impacts <i>without</i> BOEM Protective Measures <i>in excluded areas</i> ^[1]	none	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse	● → ● Negligible adverse to minor adverse
Accidental Impacts <i>with</i> BOEM Protective Measures <i>in excluded areas</i> ^[1]	none	● Negligible adverse	● Negligible adverse	● Negligible adverse

- Oil spills, spill response, and vessel strikes could occur in or move through excluded areas.
- Alternatives C and D would not change the overall impact conclusions for sea turtles given their wide distribution across the GOM, transitory use of the excluded areas, and because impacts from some IPFs (Impact Producing Factors) (e.g., vessel strikes and oil spills) could still occur in the excluded areas.
- Some benefits to breeding, nesting, and hatchling sea turtles may also be realized for those individuals that nest and hatch off Baldwin County, Alabama, and the Texas coast shoreward of the identified wind energy areas. The exclusion of whole and partial blocks identified as Significant Sediment Resource Areas located along the Texas, Louisiana, and Mississippi coastlines could benefit Kemp's ridley sea turtles utilizing areas shoreward of the 100-m (328-ft) isobath extending from from Texas to Florida.
- The exclusion of coastal areas shoreward of the 20-m (66 ft) isobath along the central and western Louisiana and eastern Texas coasts provide additional benefits to Kemp's ridley sea turtles and other species that utilize these areas for foraging. Further protection is provided with the exclusion of the Gulf of Mexico Wind Leasing Call Area, and sea turtles foraging and resting within those areas would not experience impacts from routine OCS oil- and gas-related activities.
- Impacts from noise may travel from the sound source into excluded areas resulting in negligible to moderate impacts without the application of BOEM protective measures.
- Impacts from noise may travel from the sound source into excluded areas resulting in negligible to minor impacts with the application of BOEM protective measures.

Range of Impact Levels

● Major Adverse
 ● Moderate Adverse
 ● Minor Adverse
 ● Negligible Adverse



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