

Critical Habitat for Loggerhead Turtles

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US Army Corps of Engineers
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Wilmington
District

Northwest Atlantic Ocean Distinct Population Segment of Loggerhead Sea Turtle (*Caretta caretta*) Wilmington District Areas of Concern

Presentation will:

- Review key concepts related to this Rule
- Summarize final rule and how this impacts work in District
- Show where data is available to map designated critical habitats



Loyalty – Duty – Respect – Selfless-Service – Honor – Integrity – Personal Courage



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Review of ESA Key Concepts Related to Critical Habitat

The Endangered Species Act (ESA) requires designation of critical habitat for species designated as Threatened or Endangered (defined in Section 3, ESA)

- Loggerhead turtles (*Caretta caretta*) were listed worldwide as Threatened in 1978
- NC is in “Northern Recovery Unit” for Loggerhead turtle – the geographic or otherwise identifiable subunit in the species’ Recovery Plan from the NW Atlantic Distinct Population Segment (DPS)

- Critical habitat are areas essential to the conservation of the species.
- No new regulatory requirements for non-federal projects: not a refuge or sanctuary for the species.
- Critical habitat is designated via the “rule making” process of publishing a draft and final Federal regulation in the Federal Register; establishes a comment period for public input into the decision-making process.
- **Federalized work in critical habitats triggers Section 7 Consultation Process.**
 - For actions that affect loggerheads, federal agencies must already not jeopardize the species' continued existence.
 - The designation of critical habitat will mean that those agencies must also assess effects of their actions to the critical habitat.





FWS – Nesting (Beach) Critical habitat (Terrestrial) lands from the mean high water line landward to the toe of the secondary dune or developed structure with:

Primary Constituent Element 1— Access

- (a) relatively unimpeded nearshore access from the ocean to the beach for nesting females and from the beach to the ocean for both post-nesting females and hatchlings
- (b) located above mean high water to avoid being inundated frequently by high tides.

Primary Constituent Element 2—Sand

- (a) suitable for nest construction
- (b) suitable for facilitating gas diffusion conducive to embryo development
- (c) temperatures and a moisture content conducive to embryo development

Primary Constituent Element 3—Darkness

- (a) sufficient darkness to ensure nesting turtles are not deterred from emerging onto the beach and hatchlings and postnesting females orient to the sea.



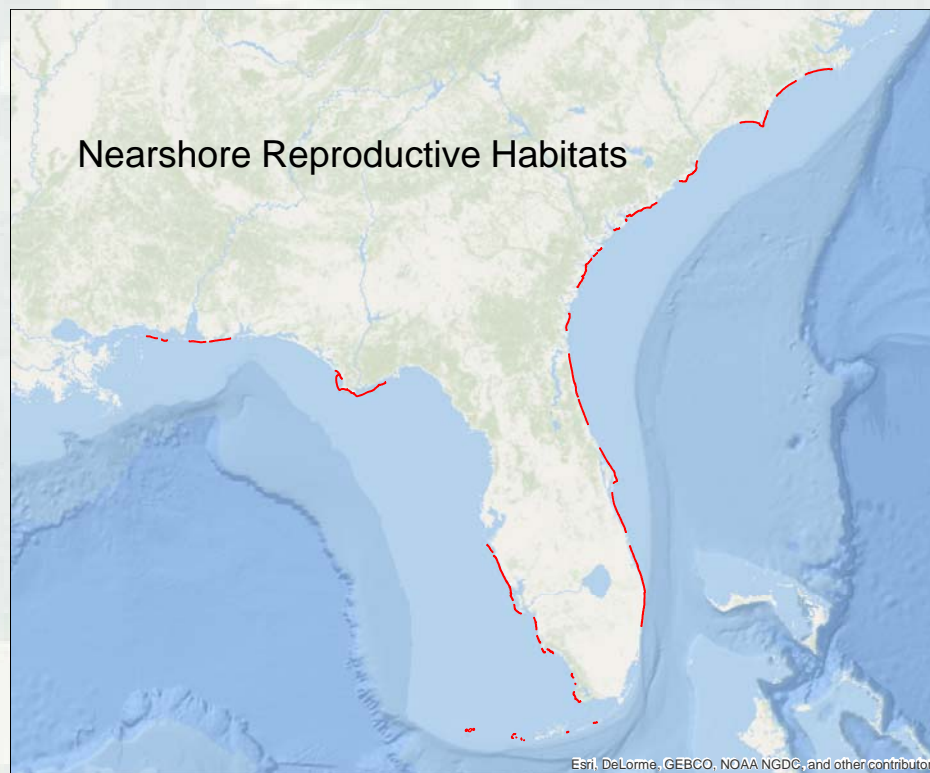
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NMFS – Marine Habitats – Nearshore Reproductive Habitats Areas Designated Critical Habitat by 8/2014 Rule

Physical and biological features (PBF) of nearshore reproductive habitat of the nearshore waters adjacent to nesting beaches

- Hatchlings use to egress to the open-water environment
- Nesting females use to transit between beach and open water during the nesting season.
- Primary constituent elements (PCEs) that support this habitat are the following:
 - (i) **Nearshore waters directly off the highest density nesting beaches**, as identified in 78 FR 43006, July 18, 2003, to 1.6 km (1 mile) offshore;
 - (ii) Waters sufficiently **free of obstructions or artificial lighting to allow transit** through the surf zone and outward toward open water; and
 - (iii) Waters with **minimal man made structures** that could promote predators (i.e., nearshore predator concentration caused by submerged and emergent offshore structures), disrupt wave patterns necessary for orientation, and/or create excessive longshore currents.



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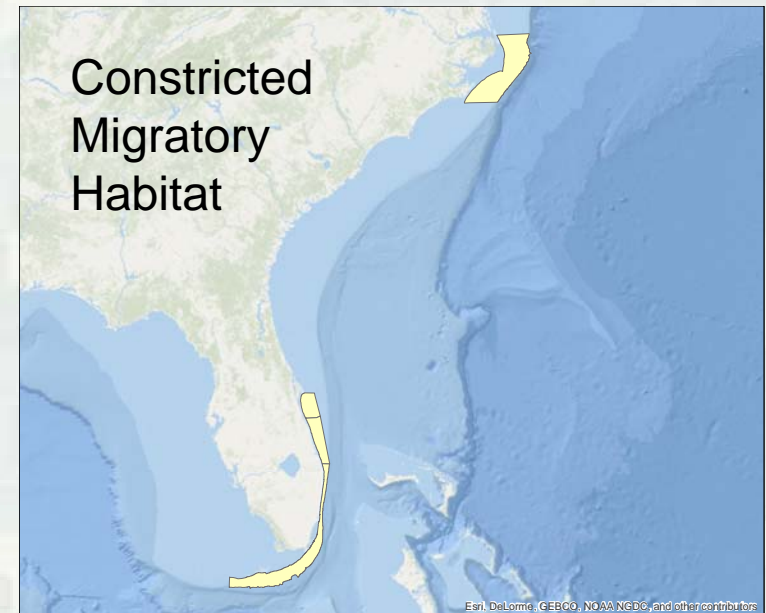


NMFS – Marine Habitats - Constricted Migratory Habitat Areas Designated Critical Habitat by 8/2014 Rule

High use migratory corridors that are constricted (limited in width) by land on one side and the edge of the continental shelf and Gulf Stream on the other side.

Primary constituent elements (PCEs) that support this habitat are the following:

- (i) Constricted continental shelf area relative to nearby continental shelf waters that concentrate migratory pathways; and
- (ii) Passage conditions to allow for migration to and from nesting, breeding, and/or foraging areas.



Effects offshore actions off Florida & North Carolina



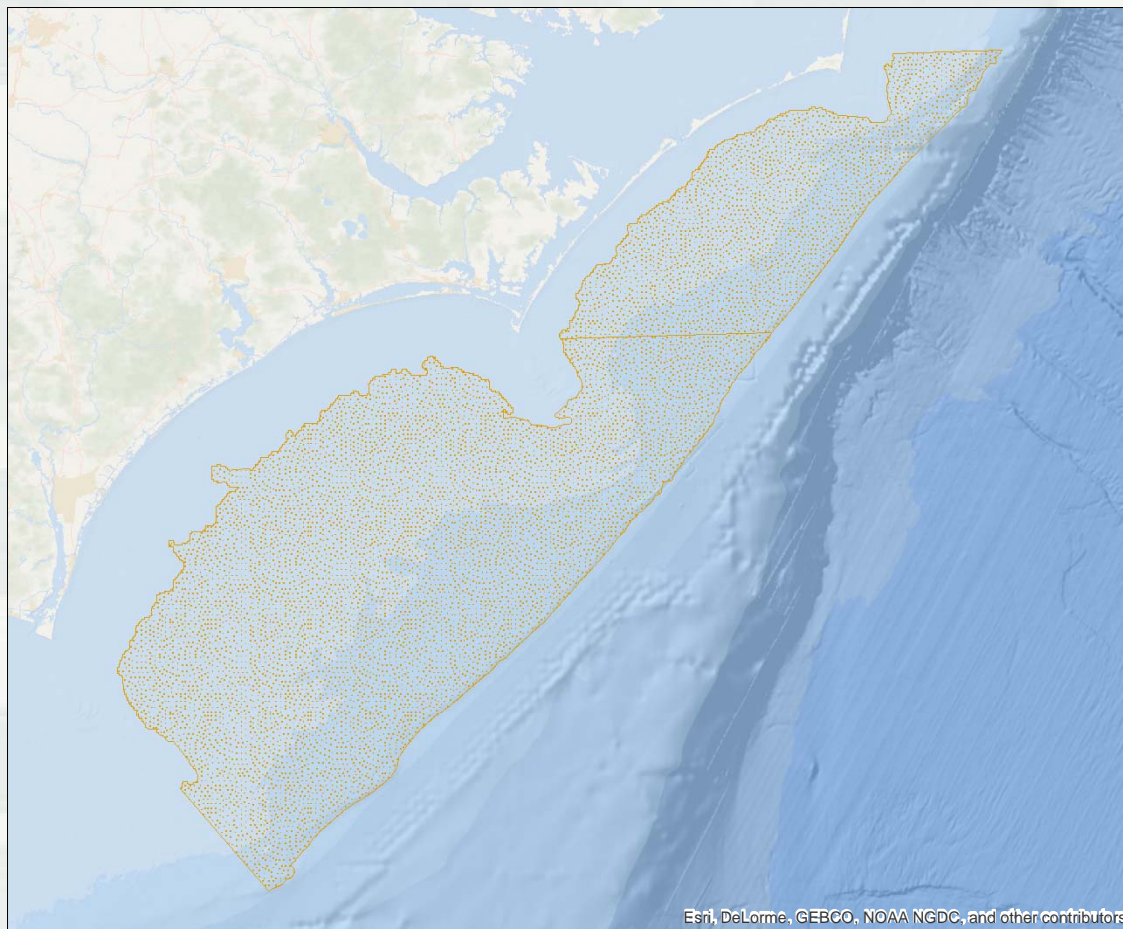
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NMFS – Marine Habitats – Winter Habitat

Areas Designated Critical Habitat by 8/2014 Rule

Winter Habitat: This habitat lies exclusively offshore of NC!



Primary constituent elements (PCEs):

- (i) Water temperatures above 10° C from November through April;
- (ii) Continental shelf waters in proximity to the western boundary of the Gulf Stream; and
- (iii) Water depths between 20 and 100 meters.



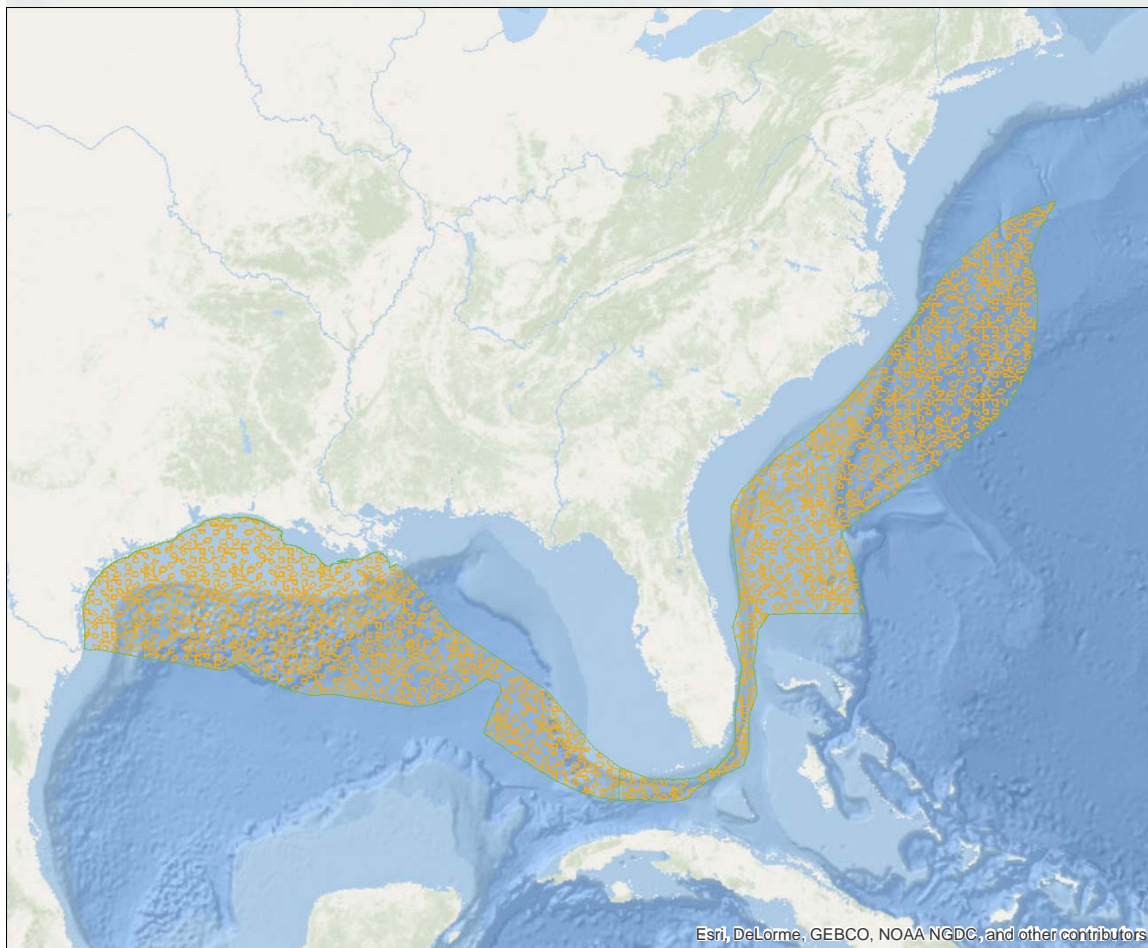
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NMFS – Marine Habitats – Sargassum Habitat

Areas Designated Critical Habitat by 8/2014 Rule

Sargassum Habitat: This habitat extends from offshore Mid Atlantic south into Gulf of Mexico



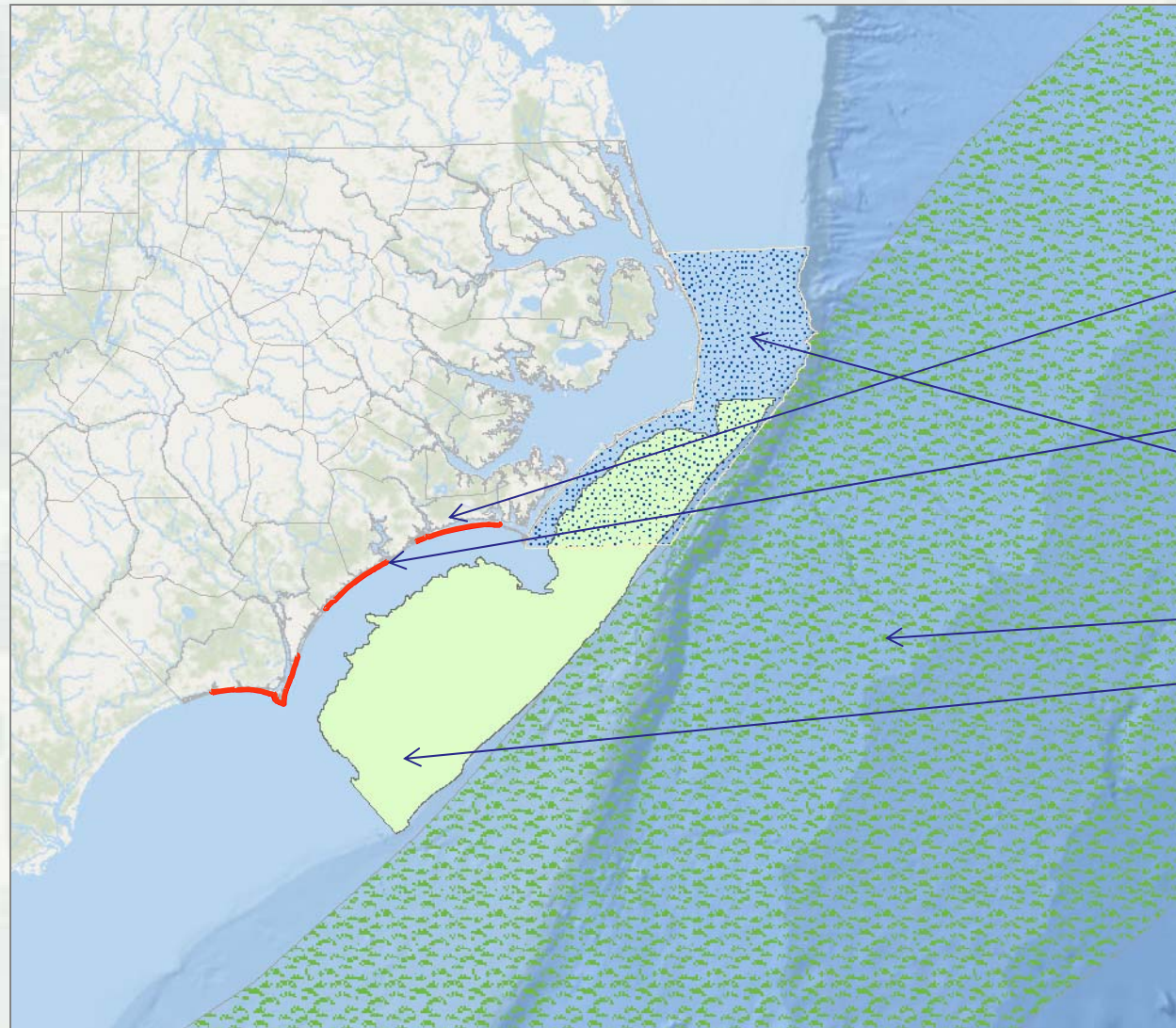
Primary constituent elements (PCEs) that support this habitat are the following:

- (i) Convergence zones, surface-water downwelling areas, the margins of major boundary currents (Gulf Stream), and other locations of Sargassum;
- (ii) Sargassum in concentrations that support adequate prey abundance and cover;
- (iii) Available prey and other material associated with Sargassum habitat including, but not limited to, plants and cyanobacteria and animals native to the Sargassum community such as hydroids and copepods;
- (iv) Sufficient water depth and proximity to available currents to ensure offshore transport (out of the surf zone), and foraging and cover requirements by Sargassum for post-hatchling loggerheads, i.e., >10 meters depth.



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Overview: Wilmington District Beaches and Offshore Areas of Concern



Designated Critical Habitats



FWS:

- Beach reproductive



NMFS:

- Nearshore reproductive
- Constricted migratory
- Sargassum beds
- Winter

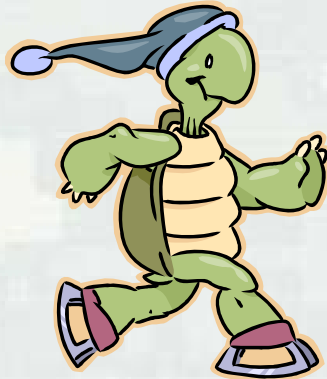
Legend

- Terrestrial (beach) and Nearshore Reproductive Critical Habitat
- Constricted Migratory Critical Habitat - NC Units
- Winter Critical Habitat
- Sargassum Critical Habitat



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Summary: Exercise care in offshore actions



- Potential work in these areas triggers Section 7 Review
- Data available for GIS screening from Services – in use in District

