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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 226

[Docket No. 130513467-4401-02]

RIN 0648-BD27

Endangered and Threatened Species: Critical Habitat for the Northwest Atlantic Ocean Loggerhead Sea Turtle Distinct Population Segment (DPS) and Determination Regarding Critical Habitat for the North Pacific Ocean Loggerhead DPS

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: We, the National Marine Fisheries Service (NMFS), issue a final rule to designate critical habitat for the Northwest Atlantic Ocean Distinct Population Segment (DPS) of the loggerhead sea turtle (Caretta caretta) within the Atlantic Ocean and the Gulf of Mexico pursuant to the Endangered Species Act of 1973, as amended (ESA). Specific areas for designation include 38 occupied marine areas within the range of the Northwest Atlantic Ocean DPS. These areas contain one or a combination of habitat types: Nearshore reproductive habitat, winter area, breeding areas, constricted migratory corridors, and/or Sargassum habitat. The U.S. Fish and Wildlife Service (USFWS) is issuing a final rule for loggerhead critical habitat for terrestrial areas (nesting beaches) in a separate document. No marine areas meeting the definition of critical habitat were

identified within the jurisdiction of the United States for the North Pacific Ocean DPS, and therefore we are not designating critical habitat for that DPS.

DATES: This rule becomes effective [Insert date 30 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: The final rule and final Economic Analysis (including the Regulatory Flexibility Analysis) used in preparation of this final rule, as well as comments and information received, and accompanying documents are available at http://www.nmfs.noaa.gov/pr/species/turtles/loggerhead.htm or by contacting Susan Pultz, NMFS, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910.

FOR FURTHER INFORMATION CONTACT: Susan Pultz, NMFS, Office of Protected Resources 301-427-8472 or susan.pultz@noaa.gov; or Angela Somma, NMFS, Office of Protected Resources 301-427-8474 or angela.somma@noaa.gov.

SUPPLEMENTARY INFORMATION:

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The following topics are discussed in this final rule:

I. Background

The loggerhead sea turtle was originally listed under the ESA worldwide as a threatened species on July 28, 1978 (43 FR 32800). No critical habitat was designated for the loggerhead sea turtle at that time. Pursuant to a joint memorandum of understanding signed on July 18, 1977, the USFWS has jurisdiction over sea turtles on land and we, the National Oceanic and Atmospheric Administration's (NOAA's) NMFS,

have jurisdiction over sea turtles in the marine environment. On September 22, 2011, NMFS and USFWS jointly published a final rule revising the loggerhead's listing from a single worldwide threatened species to nine DPSs (76 FR 58868). Five DPSs were listed as endangered (North Pacific Ocean, South Pacific Ocean, North Indian Ocean, Northeast Atlantic Ocean, and Mediterranean Sea), and four DPSs were listed as threatened (Northwest Atlantic Ocean, South Atlantic Ocean, Southeast Indo-Pacific Ocean, and Southwest Indian Ocean). Critical habitat cannot be designated in areas outside of U.S. jurisdiction (50 CFR 424.12). Two DPSs occur within U.S. jurisdiction: The Northwest Atlantic Ocean DPS (range defined as north of the equator, south of 60° N. lat., and west of 40° W. long.), and the North Pacific Ocean DPS (range defined as north of the equator and south of 60° N. lat.). At the time the final listing rule was developed, we lacked comprehensive data and information necessary to identify and describe physical or biological features (PBFs) of the terrestrial and marine habitats. As a result, we found designation of critical habitat to be "not determinable" (see 16 U.S.C. 1533(b)(6)(C)(ii)). In the final rule we stated that we would consider designating critical habitat for the two DPSs within U.S. jurisdiction in future rulemakings.

Following the 2011 listing, NMFS and USFWS convened a critical habitat review team (CHRT) to assist in the assessment and evaluation of critical habitat areas for the Northwest Atlantic Ocean and North Pacific Ocean DPSs. Based on their biological report, the initial Regulatory Flexibility Analysis and section 4(b)(2) analysis (which considers exclusions to critical habitat based on economic, national security and other relvant impacts), we published a proposed rule (78 FR 43006, July 18, 2013) to designate critical habitat for the threatened Northwest Atlantic Ocean DPS and determined that

there are no areas meeting the definition of critical habitat for the endangered North Pacific Ocean DPS.

We proposed designating 36 marine areas within the Northwest Atlantic Ocean DPS as critical habitat. Each of these areas consists of one or a combination of the following habitat types: nearshore reproductive habitat (directly off nesting beaches to 1.6 km (1 mile)), wintering habitat, breeding habitat, and constricted migratory corridors. In the proposed rule, we also asked for comment on whether to include as critical habitat in the final rule some areas that contain foraging habitat and two large areas that contain Sargassum habitat.

In the proposed rule we requested public comment through September 16, 2013. In response to requests, we extended the public comment period through November 29, 2013 (78 FR 59907) and held three public hearings.

The USFWS proposed terrestrial critical habitat (nesting beaches) in a separate rulemaking on March 25, 2013 (78 FR 18000). The proposed designations complement each other as the nearshore reproductive habitat we proposed is directly offshore of the nesting beaches proposed by the USFWS.

For a complete description of our proposed action, including the natural history of the loggerhead sea turtle, we refer the reader to the proposed rule (78 FR 43006, July 18, 2013).

II. Summary of Changes from the Proposed Critical Habitat Designation

We evaluated the comments submitted and new information received from public comments and hearings following the proposed rulemaking, and made the following changes from the proposed rule to the final rule:

(1) To the first PCE for Nearshore Reproductive Habitat (IV.B.1. and in the textual description), we added "and their adjacent beaches" and replaced the reference to the USFWS proposed rule for terrestrial critical habitat for the loggerhead sea turtle Northwest Atlantic Ocean DPS (78 FR 18000, March 25, 2013) to the appropriate place in the Code of Federal Regulations to read, "Nearshore waters directly off the highest density nesting beaches and their adjacent beaches, as identified in 50 CFR 17.95(c), to 1.6 km offshore;

(2) To the PBFs, PCEs and Special Management Considerations for Concentrated Breeding areas (IV.B.1 and IV.C.1), we changed "concentrations" to "densities."

(3) To Special Management Considerations for Sargassum (section IV.C.1.), we added "levels of ocean acidity" to (5), which now reads, "Global climate change, which can alter the conditions (such as currents and other oceanographic features, temperature, and levels of ocean acidity) that allow Sargassum habitat and communities to thrive in abundance and locations suitable for loggerhead developmental habitat."

(4) Under VII. Final Determinations and Critical Habitat Designations, we added Sargassum habitat to the list of habitat areas.

(5) In the textual description for LOGG-N-4, we deleted reference to "Onslow Beach (Marine Corps Base Camp Lejeune)" as well as "Browns Inlet" because it was determined that the base's Integrated Natural Resources Management Plan (INRMP) benefited loggerheads and therefore the area should not be designated in accordance with section 4(a)(3) of the ESA.

(6) We added textual descriptions for two units of Sargassum habitat (LOGG-S-1 and LOGG-S-2) with associated regulatory text and map.

III. Public Comments and Responses

In response to the request for comments in the proposed rule and our public hearings, we received over 200 individual comment letters, one with 5,552 signatures. At least 42 individual comments consisted of general statements supporting the designation, many noting that they would like loggerheads to receive as much protection as possible, and some noting that they would be in favor of "protecting more habitat," although they were not specific as to where. Two commenters expressed general statements opposing the designation but without reference to specific areas or issues. We received additional comments either expressing support or opposition with specific information regarding areas or issues. For the responses to comments, we do not include comments expressing general support or general opposition; only comments that are accompanied by specific details. We also did not respond to comments that were specific to terrestrial habitat, but did share those comments with USFWS so they could respond. We only include comments that are germane to the proposed rule and we sort our responses below by major topic area.

A. Comments on ESA Requirements and Process

Comment 1: Several commenters felt that NMFS took an inappropriately narrow reading of its conservation mandate for in-water designation of critical habitat. Commenters note that the ESA and its implementing regulations require the designation of critical habitat to focus on the biological features of the habitat that make it essential to the conservation of the species. The commenters said that NMFS declined to designate critical habitat in all areas where the PCEs are present and essential to the conservation of

the species, instead repeatedly narrowing its proposed designation to include only a subset of these areas. The commenters argued if an area is essential for the conservation of the species, including both its survival and recovery, it must be designated unless the economic costs outweigh the benefits of designation.

Response: The ESA requires that in designating critical habitat, we identify "physical or biological features (I) essential to the conservation of the species and (II) which may require special management consideration or protection" (section 3(5)(A)(i)). Section 3(5)(C) of the ESA states that "Except under those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the … species." This species is naturally wide-ranging and a generalist forager. As such, it occurs throughout the east coast of the U.S. We identified Physical Biological Features (PBFs) and Primary Constituent Elements (PCEs) that help us identify habitat essential to the conservation of the species (as defined in the ESA), and not the entire historical range of the species.

Comment 2: Several commenters emphasized that NMFS should subject any requests for critical habitat exclusion to a thorough public review, including notice and opportunity for comment, just as it has its critical habitat proposal.

Response: While we appreciate the commenters' concern with transparency and public review, we do not request public comment on requests for exclusions. We do make all comments available on regulations.gov and we address them in this final rulemaking so the public can see any requests that were made and our response.

Comment 3: Several commenters felt NMFS was obligated to prepare an environmental impact statement in connection with designating critical habitat pursuant to the National Environmental Policy Act, 42 U.S.C. 4321, et seq. ("NEPA"). Designation of critical habitat for the loggerhead sea turtle significantly affects the quality of the human environment, and NMFS is required to determine the extent of these impacts in compliance with NEPA.

Response: We have determined that an environmental analysis as provided for under NEPA for critical habitat designations made pursuant to the ESA is not required. See Douglas County v. Babbitt, 48 F.3d 1495 (9th Cir. 1995), cert. denied, 116 S.Ct. 698 (1996).

Comment 4: Several commenters cited data indicating that the loggerhead population is increasing and questioned whether designation of critical habitat in marine areas is in fact essential to the conservation of this species according to the requirements of the ESA.

Response: Whether the loggerhead population is increasing could have a bearing on whether and how it is listed (endangered or threatened), but does not have a bearing on whether critical habitat should be designated. Habitat is a key ingredient to the well-being of any species, and Congress determined that a species that is listed under the ESA should have critical habitat protected except in the very limited circumstances in which it is determined not to be prudent (see response to comment #5).

Comment 5: A number of commenters expressed concern about whether the critical habitat designation would add information requirements, or reasonable and

prudent alternatives, to current and future Section 7 consultations, including whether consideration of additional risk factors would be required.

Response: NMFS anticipates that it is unlikely that this critical habitat designation will alter the factors considered in, or result in additional management efforts resulting from, future section 7 consultations. Regardless of whether critical habitat is designated, all listed species undergo section 7 consultation. Loggerhead sea turtles have been protected under the ESA since 1978, with Section 7 consultations proceeding regularly since that listing.

NMFS has engaged in a large number of consultations with Federal agencies that resulted in implementation of a suite of conservation measures that are used to avoid jeopardizing the continued existence of the species. In preparing the critical habitat designation, NMFS considered whether Section 7 consultations would need to consider additional or different conservation measures or risk factors to avoid destruction or adverse modification of the primary constituent elements that support the physical and biological features of critical habitat above and beyond those measures already taken to avoid jeopardizing the continued existence of the species. For example, NMFS has issued several biological opinions to the Bureau of Ocean Energy Management (BOEM) regarding authorized activities in the Gulf of Mexico and Atlantic that may affect Sargassum habitat. This long consultation history with BOEM has allowed NMFS and the action agency to identify direct and indirect effects of BOEM actions that may adversely affect the species (e.g., authorization of routine activities such as vessel traffic, drilling, dredging and surveys; and accidental events reasonably certain to occur, such as small oil spills from vessels or platforms) and

measures to minimize and mitigate those impacts on the species. Conservation measures required by NMFS in biological opinions issued to BOEM include, but are not limited to, marine debris minimization guidance and training. Although the risk factors evaluated in the BOEM consultations and the conservation measures resulting from them were for the effects to the species, NMFS anticipates that they would be equally applicable to the determination of whether there is likely to be an adverse impact to, or an adverse modification of, critical habitat as designated in this final rule. Therefore, NMFS does not expect additional risk factors or conservation measures to be required as a result of this critical habitat designation, because the protection accorded the species through the Section 7 process has included consideration of measures necessary to protect its habitat from destruction or adverse modification.

B. Comments on Prudent and Determinable

Comment 6: Several commenters noted the ESA only allows critical habitat designations when special management considerations may be necessary, when designation is prudent, and where critical habitat is determinable. They believe the areas proposed for critical habitat designation do not meet these requirements. Several of these commenters specifically identified the Sargassum habitat discussed in the proposed rule as an example, due to the large uncertainties associated with those areas as described in the proposed rule.

Response: The commenters are correct that critical habitat is designated when special management considerations may be necessary, when designation is prudent, and where critical habitat is determinable. With regard to special management considerations, we have determined that Sargassum habitat is essential to loggerheads

and may require special management considerations. In the proposed rule, we recognized that the Sargassum PCEs can be affected by the following activities which may require special management: Commercial harvest of Sargassum, oil and gas activities, vessel operations that result in the disposal of trash and wastes, ocean dumping, and global climate change.

With regard to the prudency of critical habitat designations, our implementing regulations for critical habitat designations (50 CFR 424.12(a)(1)) state that designating critical habitat is not prudent when (1) the species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of such threat to the species (not the case for loggerheads); or (2) such designation would not be beneficial to the species. In the case of loggerhead sea turtles, identification of critical habitat would not increase the degree of threat to the species. Further, because there is value in highlighting critical habitat, including for planning and educational purposes, designation of critical habitat does contribute to the conservation of the species. Uncertainty in information does not mean a designation is not prudent.

Critical habitat is now determinable. At the time we listed the nine DPSs of loggerhead sea turtles in 2011, critical habitat was not determinable. If critical habitat is not determinable at the time of listing, the ESA allows the Secretary to extend the timeframe to designate, but only by one additional year. After this year, she must publish a final regulation based on such data as may be available at that time.

C. Comments on Coastal Zone Management Act

Comment 7: Several commenters were concerned that that our consistency determination submitted to the North Carolina Division of Coastal Management in connection with designating critical habitat is incomplete and does not meet the requirements of the Coastal Zone Management Act, 16 U.S.C. 1451, et seq. (CZMA) and its implementing regulations**.** Some requested that we revisit this Federal consistency submission and include additional analysis of potential impacts, and that we include additional information on potential economic impacts and the data used to determine critical habitat boundaries.

Response: Upon further review of our proposed designation of critical habitat for the threatened loggerhead sea turtle Northwest Atlantic Ocean DPS and its supporting analysis, by letter dated January 23, 2014, we withdrew our consistency determination for North Carolina and instead provided a negative determination. While we recognize the State's goals of coastal resource protection and economic development, we determined that any effects of the proposed action on North Carolina's coastal uses and resources are not reasonably foreseeable at this time. As indicated in our negative determination, this designation of critical habitat will not restrict any coastal uses, affect land ownership, or establish a refuge or other conservation area; rather, the designation only affects the ESA section 7 consultation process. Through the ESA consultation process, we will receive information on proposed Federal actions and their effects on listed species and this critical habitat upon which we base our biological opinions. It will then be up to the Federal action agencies to decide how to comply with the ESA in light of our opinion, as well as to ensure that their actions comply with the CZMA's Federal consistency

requirement. At this time, we do not anticipate that this designation is likely to result in any additional management measures by other Federal agencies.

D. Comments on the North Pacific Ocean DPS

Comment 8: Numerous commenters suggested that the designation should include migratory pathways for the North Pacific Ocean DPS between North American foraging grounds and/or their nesting grounds in Japan. They also raised concern about areas used by loggerheads along the U.S. west coast not being proposed for designation. One of these commenters went on to add that the Southern California Loggerhead Conservation Area and areas within the U.S. EEZ northwest of the Hawaiian Islands are occupied by loggerheads and contain PBFs essential to loggerhead conservation that may require special management considerations.

Response: Loggerheads are wide-ranging, opportunistic foragers, with individuals traveling long distances between nesting and foraging sites, and Pacific loggerheads are no exception. We closely examined whether migratory pathways should be included, particularly with respect to physical and biological features that are associated with loggerhead movement between foraging and nesting grounds in the Pacific Ocean. While loggerheads are known to migrate between foraging areas in the eastern Pacific and nesting areas in Japan, those migratory pathways overlap very minimally with U.S. waters in the EEZ northwest of Hawaii and off the U.S. west coast. Satellite telemetry data that currently exists is not sufficient to identify migration corridors to, from, or within the U.S. EEZ of either location. Loggerhead turtles transiting to the Eastern Pacific head primarily into Mexican waters. Indeed, there is a significant foraging "hotspot" at Ulloa Bay, Baja California peninsula at approximately

114° W. long. and 25° N. lat. (Wingfield et al. 2013), and turtle migratory habitat appears to dip south around 130° W. long. (which is outside of the California EEZ and runs south to Baja) where turtles follow optimal temperature to foraging grounds in Mexico (Abecassis et al. 2013).

With regard to the Southern California Loggerhead Conservation Area, the oceanographic feature thought to be correlated with loggerhead movements and the trigger for a drift gillnet time/area closure during the summer months off southern California is the El Niño-Southern Oscillation (ENSO). However, both tagging and stable isotope data have brought the ENSO-driven movement hypothesis into question. For example, no loggerheads that were tracked while foraging along the Pacific coast of Baja California, Mexico from 1996 to 2007 moved north into U.S. California EEZ waters (Peckham et al. 2011). This is particularly relevant considering that this time period encompassed at least one major ENSO event (1997−1998). The results of Peckham et al. (2011) underscore the strong tendency for loggerheads to maintain their presence in the waters off Mexico. The apparent absence of northward movements of tracked turtles may be due to the equatorial flow of the California Current, which would require northbound turtles off the Baja California peninsula to swim directly into the southerly currents (Allen et al. 2013). Allen et al. (2013) also compared skin samples from loggerheads captured in the California drift gillnet fishery with loggerheads from the central North Pacific (incidentally caught in the Hawaii-based longline fishery) and from turtles sampled during in-water research along the Baja California Peninsula, Mexico. The authors concluded that turtles in California most likely came from the central North Pacific and not from the Baja California peninsula, as was initially believed when the

drift gillnet time/area closure was put in place off the Southern California Bight in 2003. In addition, Allen et al. (2013) note that loggerhead turtles, while rarely encountered in the Southern California Bight have been observed taken in small numbers by the CA drift gillnet fishery or found stranded during non-ENSO years.

Comment 9: One comment stated that the agencies did not propose designation of any critical habitat for the North Pacific Ocean DPS because of the lack of nesting in U.S. Pacific waters.

Response: Our decision not to propose designation of critical habitat in the EEZ around Hawaii and off the coast of southern California is not because there is no nesting adjacent to U.S. Pacific waters. A species does not have to nest within U.S. waters to have critical habitat designated. An occupied area only need contain the physical and biological features essential to the conservation of the species and which may require special management consideration or protection, and in the case of unoccupied habitat be essential to the conservation of the species in order for it to be designated as critical habitat. The U.S. waters around Hawaii and off the coast of southern California do not contain the physical and biological features essential to the conservation of the species and therefore do not meet the requirements for designation.

Comment 10: One commenter expressed the importance of using the best available information in designating critical habitat in Hawaii and California.

Response: As required by Section 4(b)(2) of the ESA we evaluated whether to designate critical habitat on the basis of the best scientific data available. The loggerhead habitat within the U.S. EEZ of the central North Pacific Ocean does not provide suitable conditions in sufficient quantity and frequency to support meaningful foraging,

development, and/or transiting opportunities and, therefore, was not deemed to be essential to the conservation of the species.

Comment 11: Several commenters suggested that critical habitat should be designated for the North Pacific Ocean DPS simply because of the presence of loggerheads.

Response: The mere presence of a listed species in an area does not mean that the area qualifies as critical habitat. The ESA defines critical habitat as " the specific areas within the geographical area occupied by the species... on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management consideration or protection" (section 3(5)(A)(i)). It further states, "Except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species" (section 3(5)(C)). Habitat used by loggerheads within the U.S. EEZ of the central North Pacific Ocean does not provide suitable conditions in sufficient quantity and frequency to support meaningful foraging, development, and/or transiting opportunities and, therefore, could not be deemed to be essential to the conservation of the species.

Comment 12: Several commenters supported our decision not to designate critical habitat for the North Pacific Ocean DPS. One commenter also suggested that there is "no data establishing that modification of the pelagic environment is a significant contributing factor to the risks faced by the North Pacific DPS" and further added that "longline fisheries that operate in those waters have, at best, negligible effects on the North Pacific DPS." Another commenter cited sea turtle interaction rates with U.S.

fisheries, and also suggested that the U.S. fisheries around Hawaii have, at most, negligible effects on the species. The commenter also supplied information on conservation efforts, such as nesting beach projects at foreign beaches.

Response: We agree that based on the best available information no marine areas meeting the definition of critical habitat were identifiable within the jurisdiction of the United States for the North Pacific Ocean DPS. However, because we did not identify PBFs within the U.S. EEZs, we did not need to look further into the issues raised in these comments.

Comment 13: One commenter suggested that the agency use metrics when defining the foraging habitats as functional habitats (including the North Pacific Ocean DPS).

Response: The Biological Report uses both general and specific metrics when it describes the PBF deemed essential to loggerhead oceanic habitat in the North Pacific as well as the PCEs for both the central North Pacific and the eastern North Pacific. We describe the PBF of loggerhead turtle oceanic habitat in the North Pacific Ocean as waters that support suitable conditions in sufficient quantity and frequency to provide meaningful foraging, development, and/or transiting opportunities to the populations in the North Pacific. PCEs in the central North Pacific Ocean that support this habitat are (1) currents and circulation patterns of the North Pacific (Kuroshoi Extension Bifurcation Region, and the southern edge of the Kuroshio Extension Current characterized by the Transition Zone Chlorophyll Front) where physical and biological oceanography combine to promote high productivity (chlorophyll a = 0.11–0.31 mg/m 3) and sufficient prey quality (energy density $\geq$ 11.2 kJ/g) of species; and (2) appropriate sea surface

temperatures (14.45° to 19.95° C (58.01° to 67.91° F)), primarily concentrated at the 17° to 18° C (63° to 64° F) isotherm. PCEs in the eastern North Pacific Ocean that support this habitat include the following: (1) sites that support meaningful aggregations of foraging juveniles, and (2) sufficient prey densities of neustonic and oceanic organisms.

E. Comments on Northwest Atlantic Ocean DPS

Comments on Use of Best Available Data

Comment 14: One commenter felt that we failed to access and compile all the available data and, as a result, the proposed rule was not based on the best scientific data available. The commenter argued that NMFS did not include the synthesis of aerial survey and telemetry data for surfacing times collected seasonally in the Atlantic Ocean through the Atlantic Marine Assessment Program for Protected Species (AMAPPS) and in the Gulf of Mexico through the Deep Water Horizon Natural Resource Damage Assessment (NRDA) surveys.

Response: We did review available data from the AMAPPS project but did not note this in the preamble to the proposed rule. However, the telemetry data from AMAPPS has not been analyzed in a way similar to that done by the Loggerhead Turtle Expert Working Group (TEWG), which synthesized information for turtle presence based on satellite telemetry in the Gulf of Mexico and Atlantic Ocean and was therefore particularly useful for our analysis. Incorporation of the AMAPPS data would not alter the already known pattern of habitat use in the U.S. Atlantic as the tracks from the AMAPPS turtles overlay the areas already known to be extensively used by turtles from the TEWG report (NMFS 2011; NMFS 2012a; Richards 2012, pers. comm.). With regard to surveys conducted in response to the Deep Water Horizon incident, satellite tracks in the Gulf of Mexico were collected by the NMFS Southeast Fishery Science

Center but not funded by NRDA. As with the AMAPPS data, review of these data did not yield any new or unknown patterns of habitat use by loggerheads in the Gulf of Mexico.

Comment 15: One commenter felt it was imperative for USFWS to include readily available data from the 2012 nesting season into their final analysis and critical habitat designation. Because NMFS' designation of nearshore reproductive habitat is based on the USFWS proposal, the commenter argued these must be closely coordinated and both agencies must examine the science relevant to their designation.

Response: Critical habitat is defined in section 3 of the Act as the specific areas within the geographical area occupied by the species at the time it was listed and contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. The Northwest Atlantic Ocean loggerhead sea turtle DPS was listed in 2011 (50 CFR 17.11(h)). USFWS defined the terrestrial portion of the geographical area occupied for the loggerhead sea turtle as those U.S. areas in the Northwest Atlantic Ocean DPS where nesting has been documented for the most part annually for the 10-year period from 2002 to 2011 as this time period represents the most consistent and standardized nest count surveys. NMFS defined the nearshore reproductive habitat as waters off those nesting beaches to 1.6 km. In addition, the proposed rule for this designation was being prepared in 2012 and early 2013, and not all of the nesting survey results from 2012 were available for all areas at the time. Thus, to insure data quality and consistency our determination of critical habitat used nesting data through the 2011 nesting season.

Comment 16: One commenter was concerned that much of the proposal was based on the 2009 assessment of loggerhead sea turtles in the Western North Atlantic Ocean conducted by the Turtle Expert Working Group (TEWG, 2009). The commenter noted that the TEWG's 2009 assessment presents considerable data which have been compiled and analyzed over the past 30 years, but is careful to point out significant shortcomings in current data and the need to improve and increase data collection in the future to better understand the population. The commenter questioned the manner in which the collected data and its analysis was used by the NMFS and concluded the proposal falsely leads one to believe that considerable statistical data are available on which accurate population counts and spatial distribution can be determined. The commenter characterized the spatial distribution in the TEWG report as being driven by where studies were conducted rather than an attempt to consider the likely spatial distribution as a starting point in a comprehensive analysis.

The commenter further stated that the Florida east coast, between Ponce Inlet and Golden Beach/Miami, account for 79 percent of loggerhead nests within the DPS and stated that this should be used as the foundation for studying spatial distribution of the species.

Response: We recognize that there are limitations to the TEWG data, but it represents much of the best available science for loggerheads. Where we were able to supplement that data, we did. We did not infer that the TEWG report is a statistical accounting of accurate population counts. We do believe the TEWG report represents the best compilation of numerous data sets through 2007/2008 and we clearly identified the methods used in the TEWG report. The TEWG data can be used as a

starting point for general distribution, but we recognize that the spatial distribution is largely based upon where studies were conducted. We considered those limitations in our analysis.

We do not disagree that further study for peninsular Florida loggerheads is warranted; however, while the Florida coast does contain the highest density of loggerhead nests, the basic tenets of conservation biology dictate the importance of conserving the range of habitats and individuals utilizing them in order to preserve both the adaptive capability of turtles (turtles that have adapted to different conditions, exhibit different life history strategies (such as overwintering off of North Carolina as opposed to migrating south) and/or those whose genetic makeup may reflect such adaptations), and a range of habitat options as conditions change, such as loss of habitat in low lying areas due to sea level rise.

Comment 17: One commenter claimed major shortcomings exist in the quantity and quality of the data relied upon by NMFS and particularly that associated with the marine population and distribution of loggerheads. They argued that these shortcomings make it impossible to accurately identify areas that are critical to the survival of the species, and that designation of critical habit requires more comprehensive data and analysis of the marine population than what is currently available. The commenter concluded that as a result, wintering, migratory and breeding habitats as well as foraging and Sargassum locations should not be designated as critical habitat until adequate data and analyses are available to correctly identify their importance to the survival of the species and their economic and social impact to the public.

Response: We conducted a comprehensive analysis of all the available information in identifying areas proposed for critical habitat designation. While we appreciate the commenter's desire to have comprehensive studies before assessing whether and where to designate critical habitat, the standard for data under the ESA is "best scientific and commercial data available." We are required to base our designation on data that is the best available at the time we designate habitat. Further, we believe the record supports our decision to designate certain areas as loggerhead critical habitat based upon the best available data.

Comment 18: One commenter felt that NMFS had consulted the most appropriate studies in preparing the proposed rule, which accurately describe the current state of knowledge of population trends, habitat utilization, and distribution of habitats important to the survival of the threatened population segment of this species. However, this commenter encouraged NMFS to continue to collect data and consider the potential inclusion of foraging grounds in the designation in the future.

Response: We will endeavor to collect and support research that allows us to identify additional areas, including foraging habitat, in the future.

Comment 19: One commenter stated that NMFS has an obligation to make available the studies that form the basis of its proposed critical habitat designation.

Response: All information used to formulate the proposed rule was cited in the "References" document posted under the same docket as the proposed rule under 'Supporting Documents' on Regulations.gov. A "References" document is also available for the final rule (see ADDRESSES section above).

Comments on Sargassum Habitat

Comment 20: Several commenters argued that the fact that Sargassum habitat moves and changes should not be a reason to exclude it from designation. The commenters noted that the nature of habitat is inherently dynamic and there is nothing in the ESA that requires PCEs to be static. They presented the USFWS designation of vernal pools (seasonal wetlands) as an example of this practice, and noted that Sargassum habitat also has been identified in the Recovery Plan as essential to the survival of post-hatchlings.

Response: We appreciate the concern that Sargassum habitat be designated, and agree that it is possible to designate ephemeral and/or dynamic habitat. We also agree that Sargassum habitat is important to various loggerhead life stages, particularly post-hatchlings, hence our consideration of this habitat type in the critical habitat designation. This case was challenging as Sargassum basically occurs throughout the U.S. EEZ south of 40°N. We solicited comments to identify more accurately those areas where the highest use or value of Sargassum is most likely to occur. We have identified an area of Sargassum habitat that we believe is most beneficial to the species and included it in the final designation under Section IV., Critical Habitat Identification. Generally, the Sargassum habitat included in the designation consists of the western Gulf of Mexico to the eastern edge of the loop current, through the Straits of Florida and along the Atlantic coast from the western edge of the Gulf Stream eastward.

Comment 21: Several commenters noted the importance of Sargassum as developmental habitat for loggerhead sea turtles, but had concerns with the large area described in the proposed rule and recommended defining the area as discretely as practical. Some noted that, given the dynamic nature of Sargassum habitat, it is likely

that at various times much of the suggested critical habitat area based on Sargassum would contain densities of Sargassum below that which would concentrate loggerhead sea turtles. They recommended designating Sargassum itself rather than designating a specified area, in much the same manner as polar ice is designated as critical habitat for polar bears.

Response: We recognize the Sargassum habitat identified in the proposed rule is a large area. It is precisely the dynamic and widespread nature of Sargassum habitat that made it a challenge to consider, and why we did not propose to designate but rather requested comments on where to designate in the proposed rule. We have identified an area of Sargassum habitat that we believe is most beneficial to the species and this is included in the final designation under Section IV., Critical Habitat Identification. Generally, the Sargassum habitat included in the designation consists of the western Gulf of Mexico to the eastern edge of the loop current, through the Straits of Florida and along the Atlantic coast from the western edge of the Gulf Stream eastward.

With regard to the notion of designating Sargassum itself rather than a specific area, the ESA requires us to designate specific areas as critical habitat, not features or components of areas. While we recognize that it is possible that in any given portion of the critical habitat area at any given time Sargassum may not provide adequate cover and forage opportunities for loggerhead turtles, it is not necessary that PCEs of Sargassum habitat be present in the designated area at all times.

With regard to the polar bear critical habitat designation, the polar ice in that designation is treated much the same as we have treated Sargassum. Recognizing that it is dynamic in nature, particularly with the season, the entire U.S. area within which the

polar bears use the ice was designated, knowing that they do not use all areas in all seasons or even all years. The sea ice habitat area identified in the final rule designating polar bear critical habitat includes all contiguous waters from the mean high tide line of the mainland coast of Alaska to the 300 m bathymetry depth contour or the EEZ (75 FR 76086, December 7, 2010).

Comment 22: One commenter was concerned with the high level of uncertainty of the location of Sargassum habitat at any point in time and noted that the designation of essentially the entire continental shelf of the northern Gulf of Mexico as loggerhead critical habitat appears to be based on an almost complete lack of knowledge of the natural variability in Sargassum distribution and concentration. Further, the first PCE of Sargassum habitat is "Convergence zones, surface-water downwelling areas, and other locations where there are concentrated components of the Sargassum community in water temperatures suitable for the optimal growth of Sargassum and inhabitance of loggerheads." Yet Witherington et al. (2012) concludes that because they captured most turtles in Sargassum outside dense convergence zones, a direct correlation between strong convergences and essential loggerhead habitat cannot be made.

Response: We acknowledge it is difficult to forecast when Sargassum will be in a particular location on a particular date, given the variability of eddies, currents and weather; however, some trends may be anticipated (see Gower and King 2011). Sargassum moves with the currents so that Sargassum originating in the western Gulf typically spreads to the eastern Gulf and into the Atlantic, resulting in a dynamic habitat that is important to loggerheads wherever it occurs.

The section of the proposed rule that is quoted in this comment refers specifically to a correlation between density of convergence zones and that of loggerheads, but does not refute the importance of Sargassum to loggerheads. Read in its entirety, the proposed rule (and Witherington et al. 2012) clearly states that young loggerheads are indeed strongly associated with Sargassum, but a direct correlation between the strength of convergences and the density of loggerheads cannot be made. As we noted in the proposed rule, "Witherington et al. (2012) found that the distribution of post-hatchling and early juvenile loggerheads was determined by the presence of Sargassum. Indeed, in surveys in which they measured the relative abundance of sea turtles in transects of surface-pelagic habitat across areas with and without Sargassum, Witherington et al. (2012) found that 89 percent of 1,884 post-hatchling and juvenile turtles were initially observed within 1 m of floating Sargassum. Sargassum rafts are likely not the only habitat of this life stage, as young turtles move through other areas where Sargassum does not occur (Carr and Meylan 1980); however, loggerheads may be actively selecting these habitats for shelter and foraging opportunities." (78 FR 43103, July 18, 2013). The proposed rule also notes that, while it has been suggested that turtle density increases with Sargassum density and consolidation, especially when Sargassum consolidation is linear (Witherington et al. 2012), "Witherington et al. (2012) captured most turtles in Sargassum outside these dense convergence zones (i.e., in scattered patches, weak convergences, windrows), so a direct correlation between strong convergences and essential loggerhead habitat cannot be made" (78 FR 43104, July 18, 2013).

Comment 23: One letter with 5,552 signatures supported the designation of Sargassum as discussed in the proposed rule, and encouraged NMFS to explore using existing methods of remote sensing to track the wide distribution and dynamic nature of Sargassum. Examples of ways to provide guidance on the near real-time distribution of Sargassum included Moderate Resolution Imaging Spectroradiometer (MODIS) and the newly launched Landsat-8. They also recommended NMFS elevate the need for remote-sensing science as a restoration funding priority for this species through the various funding mechanisms aimed at applied research for restoration and marine conservation.

Response: We appreciate the commenters' recommendation about elevating the need for remote-sensing as a funding priority. During the development of the proposed rule, we explored various ways to detect and predict Sargassum occurrence in the Atlantic and Gulf of Mexico, including the satellite imagery sources identified in the comment. In the biological report, we acknowledged that near-real time detection of Sargassum concentrations is possible using daily satellite imagery (MODIS) and the higher resolution Landsat imagery, but future predictions must rely on current systems to identify concentrations of possible habitat. Real time detection and tracking is currently available through some public sources like University of South Florida Optical Oceanography Laboratory. We agree that further high resolution imagery of specific Sargassum habitat from multiple years would be beneficial, but even with that information, it is probable that the habitat would continue to shift and exhibit variable patterns in the future. It is necessary to identify critical habitat areas in advance and give public notification of the designated area. That is why we identified a large area where Sargassum occurs, although in the final rule we were able to identify a more specific area

that we believe is most beneficial to the species (see Section V., Critical Habitat Identification). Following the designation of Sargassum critical habitat, we will continue to explore options for real time monitoring of Sargassum and sources of funding for this work.

Comment 24: One commenter stated there is no basis for the claim that the designation will benefit loggerheads given the large uncertainties in habitat location and extent, loggerhead use and specific habitat needs. Further, if natural baseline conditions are not established, valid management criteria cannot be formulated and the effectiveness of management actions cannot be ascertained. Finally, they felt there are no management actions that can "provide" Sargassum habitat.

Response: While the habitat is dynamic and the specific location of Sargassum on any given day cannot be predicted, the benefit of this habitat to loggerheads is well established. Numerous references have explored the relationship between sea turtles and Sargassum (Mellgren et al. 1994; Mellgren and Mann 1996; Witherington et al. 2002; Smith and Salmon 2009; Witherington et al. 2012), and it is known to be important forage and shelter habitat for multiple life stages. The magnitude of Sargassum in the Atlantic and Gulf of Mexico may vary from year to year, so it is difficult to establish natural baseline conditions that would calculate a biomass that needs to be protected. However, critical habitat designation is not dependent upon establishing a baseline condition. The PCEs were identified based upon the best available information and qualities that would support Sargassum habitat and be beneficial to loggerheads. Management actions will be evaluated via ESA section 7 consultations on a case by case basis

considering these PCEs and in consideration of the magnitude of the project and potential impacts. This process does not differ from other section 7 consultations on other ESA listed species and their designated critical habitat. Finally, while we agree there are no management actions that can provide Sargassum habitat, there are management actions that can conserve Sargassum and thus essential forage, cover and transport habitat for a particularly vulnerable life stage.

Comment 25: Some commenters were concerned with NMFS' inability to determine suitable concentrations of Sargassum, including patch size or abundance of its associated loggerhead prey. Some felt the proposed rule did not present methods for determining what would be a natural, healthy Sargassum habitat condition. Some also noted that NMFS concedes that the specific density of Sargassum that may result in a high concentration of loggerhead turtles is unknown. The implication is that "high concentration" is the desired condition, but this concept is not directly addressed anywhere in the proposed rule, and the range of abundances for loggerheads that constitute "high" numbers is never defined.

Response: We agree that it would be ideal to have a scientific study that conclusively states the concentration of Sargassum that would congregate loggerheads or their prey. However, such a study is not currently available, nor is it necessary to designate critical habitat. While a specific prey concentration cannot be determined, the PCEs include "Sargassum in concentrations that support adequate prey abundance and cover" to address the question of whether the critical habitat designation applies to a small piece of Sargassum wherever it may occur. It

was not our intent to classify every piece of Sargassum as critical habitat, only the habitat that provides shelter and forage.

We have not identified a "high" concentration target for loggerheads in Sargassum in part because "high concentration" of loggerheads is not a PCE, and in part because it is unknown. The best information on concentrations of turtles in Sargassum can be found in Witherington et al. (2012). That study found that relative densities of post-hatchling loggerheads in Sargassum were higher in the Atlantic (~267 turtles per km^2) compared to the Gulf of Mexico (~2 turtles per km^2). However, given the limitations in sampling, these numbers cannot necessarily be translated into a target "high" concentration of turtles.

Comment 26: Some commenters noted that NMFS acknowledged that "Sargassum rafts are likely not the only habitat of this life stage, as young turtles move through other areas where Sargassum does not occur." The commenters believe the science shows that there are other significant factors that influence loggerhead use of Sargassum, including time of year, nesting intensity and cohort size, migration behaviors, and the vagaries of habitat location.

Response: The most recent and comprehensive study on this topic (Witherington et al. 2012) found that turtle densities were 100 times higher in targeted Sargassum patches than in open water between consolidated patches. Certainly there are other factors that may influence the loggerhead's use of Sargassum, but those factors are not necessarily features of the habitat. PBFs and PCEs refer to the elements of the habitat type (e.g., Sargassum) that are essential to the conservation of the species, and may require special management

considerations. Time of year, nesting intensity and cohort size, migration behavior and vagaries of habitat location are not features of the Sargassum habitat, per se, although they may allow us to anticipate whether special management considerations may be required.

Comment 27: Several commenters provided detailed information on the crucial role Sargassum plays in the loggerhead's life cycle. They noted why this habitat fits the "may require special management" definition, including the fact that currents that aggregate Sargassum also facilitate the accumulation of synthetic marine debris and petroleum or petroleum-contaminated debris within the convergence lines that aggregate Sargassum. They noted that in the aftermath of the 2010 Deepwater Horizon spill, rescuers collected nearly 500 juvenile turtles from lines of oil and Sargassum. They also identified direct harvest of the habitat and fishing activities that could predictably remove Sargassum.

Response: We agree that Sargassum habitat is important to loggerheads and meets the "may require special management considerations" portion of the critical habitat definition. In the proposed rule, we recognized that the PCEs can be affected by the following activities which may require special management: Commercial harvest of Sargassum, oil and gas activities, vessel operations that result in the disposal of trash and wastes, ocean dumping, and global climate change. Commercial fishing gear may have some interactions with Sargassum during deployment and retrieval, but these effects are temporary and isolated in nature and because of the fluid nature of the pelagic environment, recovery time is rapid. It is important to point out that we also believe that additional management – beyond that already required – is not anticipated.

Comment 28: One commenter stated that not only would designation of the Sargassum habitat cause the proposed critical habitat designation to be the largest in the history of the ESA, it would be based on physical and biological features that are poorly understood, ephemeral, and largely disconnected from the post-hatchling populations it is intended to protect. The commenter requested the entire proposed critical habitat designation be withdrawn as unnecessary and impermissible under the ESA and its implementing regulations, or narrowly delineate critical habitat and exclude from the designation all existing and proposed oil and gas development areas, as well as the areas containing industry's support infrastructure.

Response: Numerous references have explored the relationship between sea turtles and Sargassum (Mellgren et al. 1994; Mellgren and Mann 1996; Witherington et al. 2002; NMFS and USFWS, 2008; Smith and Salmon 2009; Witherington et al. 2012, Mansfield et al. 2014), and it is known to be important forage and shelter habitat for multiple life stages. Given the available literature, we disagree that the designation of Sargassum critical habitat is disconnected from post-hatchling populations. We also disagree that the features of the Sargassum habitat are poorly understood. The physical and biological feature of Sargassum (developmental and foraging habitat for young loggerheads where surface waters form accumulations of floating material, especially Sargassum) is clear, we just do not know exactly when and where it will occur in future years. We acknowledge that the Sargassum critical habitat area is large, but there is no reason this is not permissible under the ESA, and the features are dynamic and not present at all times in all areas. Nonetheless, based on public comment and new information we were able to identify a more specific area that

we believe is most beneficial to the species (see Section IV., Critical Habitat Identification). Finally, we completed a 4(b)(2) analysis that considered economic, national security and other impacts, and did not identify any additional impacts to oil and gas development areas, and thus do not have a basis to exclude existing and proposed oil and gas development areas (see Section VIII, ESA Section 4(b)(2) Analysis).

Comment 29: Several commenters noted the designation of a large critical habitat area will not pose an undue regulatory burden, especially given the unique Sargassum ecosystem. One commenter specifically stated that agency consultations concerning Sargassum critical habitat would be made easier because (1) Sargassum's seasonal presence and consistency from year to year makes its general location predictable, and (2) scientists are able to track the movement of large aggregations of Sargassum through satellite telemetry data.

Response: We agree that the designation of critical habitat will not pose an undue regulatory burden, given the few special management considerations that might affect the habitat and lack of any foreseeable activities that would rise to the scale of significant impacts. Although there is some consistency, it is generally difficult to predict specific Sargassum occurrence for a given location and time, and we are only able to forecast a general area where Sargassum may be present. This is the reason we identified a large geographical area where Sargassum is likely to occur. We agree that real time detection through satellite telemetry is possible in some areas however.

Comment 30: Several commenters were concerned that designation of Sargassum as critical habitat is likely to present significant new regulatory and

compliance hurdles for Federal actions in the Gulf of Mexico. They felt it would be virtually impossible and most certainly impracticable for commercial fishing, oil and gas activities, and other types of regulated Federal actions to monitor for Sargassum presence, or to ascertain in real time a need for impact avoidance and minimization requirements which have yet to be promulgated.

Response: We do not believe that this rule will cause significant new regulatory and management measures for Federal actions. The loggerhead turtle has been listed since 1978 and, during this time, consultations on Federal activities have addressed habitat needs of the species. Further, when we identified the possible activities that may require special management considerations, commercial fishing activities were not included. While commercial fishing gear may have some interactions with Sargassum during deployment and retrieval, we anticipate that these effects will be temporary and isolated in nature and, because of the fluid nature of the pelagic environment, recovery time is rapid.

Comment 31: Two commenters raised the issue of how climate change may affect Sargassum. One commenter supported the inclusion of potential impacts of global climate change on the ecological relationships between climate, oceanographic features, Sargassum abundance, and location, with the evaluation of required habitat for loggerhead development. The commenter also noted that impacts of global climate change are expected to increase the acidification of the world's oceans, which is still an unknown factor in the health of the Sargassum community and the resulting effects on loggerhead development. Another commenter had concerns about including global climate change as an "activity" potentially affecting Sargassum habitat, including

through related changes in currents and other oceanographic features. That commenter stated that decades of research show that it is the reverse, that climate is greatly influenced by oceanic currents. The commenter strongly urged NMFS to avoid any management considerations of global warming effects on Sargassum habitat.

Response: In the proposed rule, climate change was included as a special management consideration for Sargassum habitat, as this list includes various anthropogenic factors that may affect one or more PBF or PCE. We agree that global climate change should not be called an "activity" and changed that wording in the final rule. However, we must consider global climate change, which could have significant impacts on a variety of oceanographic features, including ocean temperature (and resulting stratification), currents, and ocean acidification. In response to one comment, we added ocean acidification to the list of impacts from climate change in the final rule. In response to the other, we note that while we agree that climate is influenced by oceanic currents, the opposite is also true. For example, changes in sea surface temperature and large-scale global wind patterns (influenced by climate change) may create divergences in surface currents (which may affect Sargassum distribution and consolidation). Climate change may also increase the frequency and magnitude of storm events, which could then lead to increased disruption of Sargassum consolidation. While the direct impacts are still unknown, global climate change may indeed affect Sargassum habitat.

Comment 32: Several commenters noted the existing Federal Sargassum Fishery Management Plan (FMP) which restricts harvest of Sargassum in the South

Atlantic Region in the U.S. EEZ. Some noted that, while Sargassum is currently afforded minimum protection as essential fish habitat and harvest is limited in the South Atlantic under the current FMP, these designations do not sufficiently reflect the critical role this habitat plays in the development and survival of long-lived loggerhead sea turtles. One commenter also cited a court decision (Natural Resources Defense Council v. United States Department of the Interior) that the existence of management plans is indisputable proof that the area qualifies as critical habitat and that the existence of other protections for listed species' habitat, even if equal to or allegedly greater than the protection that critical habitat provides, cannot excuse the service's failure to designate critical habitat.

Response: We recognize that there is a Sargassum FMP in place that could assist in conserving turtles. As some commenters noted, the existence of an FMP is considered indicative of the fact that management measures may be required, a condition indicating the need for critical habitat designation (and certainly does not preclude the need for designation). Moreover, that is not the only activity which may require special management. The release of hydrocarbons, trash and toxic waste, and synthetic debris are among other threats to turtles in Sargassum, as they would also be likely to accumulate in Sargassum due to the same oceanographic features that form Sargassum mats and windrows.

Comments on Foraging Habitat

Comment 33: Several commenters felt NMFS was obligated to designate foraging areas as critical habitat because such areas were identified in the proposed rule as occupied by loggerhead sea turtles and are essential for the conservation of the species. They felt NMFS' inability to identify specific high value sites as foraging critical habitat

for loggerheads was not a reason to exclude foraging areas from consideration. Many felt that NMFS should not require information on specific prey density as a PCE before identifying foraging habitat as critical habitat. Some commenters noted that prioritization of specific habitats was not a requirement of the ESA; that if the PCEs are identified and the area is essential to the conservation of the species, it should be designated regardless of its relative "priority."

Commenters asserted that the ESA does not allow a lack of information concerning PCEs to preclude critical habitat designation. Such designations must be made on the basis of the best available scientific data. The commenters stated that where sufficient scientific data exist to enable NMFS to determine critical habitat through the identification of physical and biological features and corresponding PCEs, NMFS is obligated to designate critical habitat to the maximum extent prudent and determinable.

Response: We agree that foraging areas are important to loggerhead conservation. Sites were identified in the proposed rule as known foraging areas based upon a review of the available literature. However, we do not have information that shows those areas to be any more important or essential than much of the rest of the continental shelf and associated bays and sounds. The existing data identifies foraging areas that have been documented through research. However, because loggerhead sea turtles are generalist foragers, it is unknown whether these specific foraging areas are essential to loggerhead conservation or if those areas are simply where research has been conducted. As explained in the proposed rule, the potential PCEs of foraging habitat—(1) Sufficient prey availability and quality, such as benthic invertebrates, including crabs (spider, rock, lady, hermit, blue, horseshoe), mollusks, echinoderms and sea pens; and (2)

Water temperatures to support loggerhead inhabitance, generally above 10° C—do not differentiate any particular area of the continental shelf from other areas. Loggerheads are generalist foragers that have been shown to forage on a wide variety of prey organisms, among a wide variety of habitat types, throughout the continental shelf and associated bays and sounds in the Gulf of Mexico and western North Atlantic. However, we were unable to identify any specific areas that meet the definition of critical habitat under section 3(5)(A)(i) of the ESA. Given the wide distribution of loggerhead prey items, we could not identify ''specific areas'' where the essential features are found within areas believed to be occupied by loggerheads. The entire continental shelf basically serves as foraging areas for loggerheads.

Comment 34: One commenter suggested that NMFS should examine the most recent Recovery Plan updates, which note the need to evaluate the foraging habitats most important to the species' survival and recovery.

Response: We appreciate the importance of foraging habitat, and are aware that the Recovery Plan calls for identification and protection of marine habitats important to loggerheads. The Recovery Plan itself, however, does not identify the most important loggerhead foraging grounds but calls for further work to identify and then protect such habitat if it can be determined. The CHRT's efforts in this regard are discussed in the proposed rule.

Comment 35: One commenter recommended that NMFS designate as foraging habitat Delaware Bay, Chesapeake Bay, off the Outer Banks, Pamlico and Core Sounds, Savannah Harbor ocean bar channel, Charleston Harbor entrance channel, and Brunswick Harbor ocean bar channel. NMFS specifically identifies these areas as foraging habitat

supported by the best available science. The Recovery Plan includes an entire section on the Pamlico- Albemarle Estuarine Complex, noting that it is the largest estuarine system in the southeast U.S. and the third largest in North America, and that it is important developmental habitat for loggerheads. The Recovery Plan also notes that long-term in-water studies indicate that juvenile loggerheads reside in particular developmental foraging areas for many years. This same area has also been recognized in multiple scientific studies regarding the capture of loggerheads in North Carolina state gillnet fisheries (e.g., McClellan 2011 and Byrd 2011).

Response: Sites, including those noted in the comment, were identified in the proposed rule as known foraging areas (and thus potential critical habitat candidates) based upon a review of the available literature. We agree that foraging areas are important to loggerhead conservation. However, we do not have information showing those areas to have unique habitat features that would result in them being any more important or essential than much of the rest of the continental shelf and associated bays and sounds. While individual studies may highlight specific areas, such areas are often reflective of where research is being conducted due to access or because of concerns due to fisheries in the areas. When looking at the information more holistically, both considering all of the individual studies together, and looking at broader datasets such as AMAPPS aerial surveys and the TEWG report, the widespread use of the vast majority of the continental shelf and inshore bays and sounds by adult and juvenile loggerheads stands out. Additionally, the generalist nature of loggerhead foraging and the lack of any specific habitat feature, prey type, or prey concentration that is deemed essential to loggerheads precludes the identification of specific habitat to be protected. We were

concerned about the inability to prioritize foraging habitats, but perhaps more so about the inability to draw a box (as is the requirement for critical habitat) around any one area with unique PCEs that may represent critical loggerhead foraging habitat compared to another neighboring area.

Comment 36: One commenter provided the most recent study by Griffin et al. (2013) which identifies four areas of concentrated foraging use within the Mid Atlantic Bight. The commenter felt the information was sufficient for NMFS to propose these four areas as critical habitat.

Response: While we carefully considered the Griffin et al. (2013) study and its identification of foraging areas in the mid-Atlantic Bight – one of the few studies that identified "hot spots" in a larger study area – those areas do not represent any specific habitat feature, prey type, or prey concentration on which to base a designation.

Comment 37: Several commenters felt that foraging areas should not be designated as critical habitat until adequate data and analysis are available to correctly identify their importance to the survival of the species. They felt the data are inadequate particularly for Delaware Bay, Chesapeake Bay, Pamlico and Core Sounds, Savannah Harbor, Charleston Harbor and Brunswick Harbor.

Response: While we appreciate the commenter's desire to have comprehensive studies before assessing whether and where to designate critical habitat, the ESA requires us to designate critical habitat based on the best scientific and commercial data available. While individual studies may highlight specific areas, such areas are often reflective of where research is being conducted due to access or because of concerns due to fisheries in the areas. When looking at the information more holistically, both considering all of

the individual studies together and looking at broader datasets such as the TEWG data, it is clear that adult and juvenile loggerheads use not just inshore bays and sounds as foraging areas, but the vast majority of the continental shelf as well. Additionally, as noted above, loggerhead sea turtles are generalist feeders. No specific habitat feature, prey type, prey concentration, or area has been identified as essential to their conservation.

Comment 38: Two commenters recommended NMFS adopt a strategy to designate representative areas to ensure that at least some portion of the population in each of the neritic life stages and subpopulations will benefit from protected foraging habitat. One argued that this is similar to the approach used by USFWS to designate terrestrial habitat on some low density beaches, and recommended NMFS convene a group of experts to synthesize available data to select the appropriate size and location for foraging habitats based on this strategy in order to designate representative nearshore/inshore juvenile foraging critical habitat areas.

Response: First, while we do appreciate the commenters' desire to identify a means to designate foraging critical habitat, the ESA does not allow us to designate "representative" areas. We must designate those specific areas that are essential to the conservation of the species based on specific physical or biological features and associated PCEs. We could not identify specific areas that are essential to the species.

Second, the USFWS strategy for designating nesting habitat is not analogous to what is being suggested. The USFWS selection of nesting beaches to be proposed as critical habitat was based on a near complete understanding of which beaches loggerheads use for nesting and in what densities. As such, the most important/high

density beaches for each major nesting region could be identified to ensure the maintenance of genetic diversity. With regard to foraging, we cannot identify high density foraging areas or specific habitat features, prey type, or prey concentrations essential to loggerhead conservation. While there are some areas where concentrated foraging has been identified, the PBFs and PCEs in those areas are not necessarily different than those in nearby areas.

Comment 39: The proposed rule identifies several notable foraging aggregations, some of which are occupied on a seasonal basis. Several of these sites have been the subject of multi-decadal mark-recapture studies that demonstrate consistent aggregations of juvenile and sub-adult loggerhead turtles with year-round or seasonal residency, i.e., in Florida: Indian River Lagoon (University of Central Florida); in North Carolina: Core-Pamlico-Albemarle Sound Complex (National Marine Fisheries Service Beaufort Lab); and in Virginia: Chesapeake Bay (Virginia Institute of Marine Science). The commenter noted a number of papers that provide quantitative data on foraging distributions of post-nesting females from the northern recovery unit (Griffin et al. 2013, Hawkes et al. 2007, Hawkes et al. 2011), foraging areas for adult male loggerheads (Arendt et al. 2011), and foraging areas for post-nesting adult females for the Peninsular Florida and Northern Gulf recovery units (Foley et al. 2013 and Hart et al. 2012), and noted that satellite telemetry and/or stable isotope analysis have corroborated the value of these sites, as well as identifying additional foraging areas for both juvenile and adult loggerhead turtles (McClellan et al. 2010). The commenter believes that representative sites could be selected on the southwest, central and northern Florida shelf based on these data.

Moreover, in many of these neritic loggerhead foraging grounds (i.e., Florida, North Carolina, Virginia) special management consideration and protection is already in place (i.e., fisheries bycatch reduction measures). The commenter believes that sites where juvenile loggerheads may reside warrant designation despite the lack of particular physical or biological features that might be used in modelling approaches. The commenter felt that presence of loggerheads was proof of importance. Therefore, the commenter encourages NMFS to include the neritic foraging grounds identified in the proposed rule as part of their designation of critical loggerhead habitat and to use the wealth of information on known sites as part of this process.

Response: All of the studies cited were reviewed by the CHRT. While individual studies may highlight specific areas, such areas are often reflective of where research is being conducted due to access or because of concerns due to fisheries in the areas. When looking at the information more holistically, both considering all of the individual studies together and looking at broader datasets such as the TEWG data, it is clear that adult and juvenile loggerheads use not just inshore bays and sounds as foraging areas, but the vast majority of the continental shelf as well. Additionally, as noted above, loggerhead sea turtles are generalist feeders. No specific habitat feature, prey type, prey concentration, or area has been identified as essential to their conservation. With regard to identifying "representative sites," please see Response 37.

Comment 40: One commenter felt that the omission of loggerhead foraging grounds in the proposed rule is inconsistent with NMFS' designation of critical habitat for the leatherback in the North Pacific Ocean (77 FR 4170; January 26, 2012) and with Canada DFO's (Fisheries and Oceans Canada) designation of critical habitat for the

leatherback in the Northwest Atlantic Ocean. In those designations, both countries identified only leatherback foraging grounds as critical habitat in their territorial waters. No nesting or breeding occurs in the territorial waters of either region. In both cases, the foraging grounds designated were but a small proportion of the total foraging grounds of the species, but nevertheless the country-specific foraging grounds were recognized as essential. Further the commenter recommended that NMFS base the designation of critical foraging habitat for loggerheads in the Northwest Atlantic Ocean on the Atlantic Strategy Steering Committee's synthesis, and include the Gulf of Mexico. NMFS should define the foraging habitats as functional habitats with some metrics (available prey, depth <200m, etc.).

Response: A comparison of foraging habitat for the leatherback turtle in the North Pacific Ocean with foraging habitat for the loggerhead, whether in the North Pacific or Northwest Atlantic Ocean, is not analogous. The leatherback turtle has very specific preferred prey, Scyphomedusae, and critical habitat units were identified, in large part, on areas where their prey concentrate. Loggerheads do not have a preferred prey and there are no habitat features necessary for foraging beyond water temperature and sufficient prey availability and quality. These factors make it much more difficult to identify foraging critical habitat for loggerheads than Pacific leatherbacks. Indeed, in the Northwest Atlantic Ocean DPS, both adequate water temperature and sufficient prey occur year-round in the Gulf of Mexico and the Atlantic coast up to North Carolina, and as far north as Massachusetts in the summer. The CHRT considered defining critical foraging habitat by some metric such as prey or depth. However, the extensive foraging throughout the continental shelf, bays and sounds, and the generalist foraging habits of

loggerheads did not allow us to identify metrics that would differentiate any particular, essential foraging habits or habitat features from the entire foraging habitat.

Comment 41: One commenter was concerned that NMFS defined the physical or biological features of loggerhead foraging habitat as areas "frequently used by large numbers of juveniles or adults." They argued that the lack of comprehensive shelf-wide surveys makes it impossible to define high use areas. In addition, the consideration of only high use areas may not be an appropriate strategy for a species that occurs in a uniform distribution across the foraging habitat (no definable high use area). The commenter recommended that NMFS modify the PBF by removing the "frequently used by large numbers of juveniles or adults" language from the definition for foraging habitat.

Response: We focused on areas frequently used by large numbers of juveniles or adults as a means of identifying habitat that is essential to the species. If we removed that portion of the definition for the PBF, we would be left with "specific sites on the continental shelf or in estuarine waters used as foraging areas" but we would likely have maintained the PCEs as they are (sufficient prey availability and quality, and water temperatures above 10°C). This would not assist in identifying areas essential to the conservation of the species.

Comment 42: One commenter pointed out that the TEWG's 2009 analysis of habitat usage resulted in the identification of relatively high use areas "which served as a proxy for identifying important habitat areas, especially as there is little quantitative data on loggerhead use of offshore waters." Thus, NMFS admits that the best available science uses species use as a surrogate for identification of specific habitat characteristics.

Where the agency knows that areas are important, highly used, and may be in need of special management considerations, these should be designated as critical habitat, bolstered by PCEs to the extent and with the specificity that can be identified.

Response: While we used the TEWG analysis to make an initial identification of high use areas to consider as possible foraging critical habitat, we can only designate occupied areas as critical habitat if they contain PBFs essential to the conservation of the species. We were unable to identify PBFs and PCEs associated with the high use foraging areas because we could not identify any specific habitat feature, prey type, prey concentration, or area as essential to their conservation.

Comment 43: One commenter recommended that NMFS designate as foraging habitat Delaware Bay, Chesapeake Bay, off the Outer Banks, Pamlico and Core Sounds, Savannah Harbor ocean bar channel, Charleston Harbor entrance channel, and Brunswick Harbor ocean bar channel. NMFS specifically identifies these areas as foraging habitat supported by the best available science. The Recovery Plan includes an entire section on the Pamlico- Albemarle Estuarine Complex, noting that it is the largest estuarine system in the southeast U.S. and the third largest in North America, and that it is important developmental habitat for loggerheads. The Recovery Plan also notes that long-term in-water studies indicate that juvenile loggerheads reside in particular developmental foraging areas for many years. This same area has also been recognized in multiple scientific studies regarding the capture of loggerheads in North Carolina state gillnet fisheries (e.g., McClellan 2011 and Byrd 2011).

Response: Sites, including those noted in the comment, were identified in the proposed rule as known foraging areas (and thus potential critical habitat candidates)

based upon a review of the available literature. We agree that foraging areas are important to loggerhead conservation. However, we do not have information showing those areas to have unique habitat features that would result in them being any more important or essential than much of the rest of the continental shelf and associated bays and sounds. While individual studies may highlight specific areas, such areas are often reflective of where research is being conducted due to access or because of concerns due to fisheries in the areas. When looking at the information more holistically, both considering all of the individual studies together, and looking at broader datasets such as AMAPPS aerial surveys and the TEWG report, the widespread use of the vast majority of the continental shelf and inshore bays and sounds by adult and juvenile loggerheads stands out. Additionally, the generalist nature of loggerhead foraging and the lack of any specific habitat feature, prey type, or prey concentration that is deemed essential to loggerheads precludes the identification of specific habitat to be protected. We were concerned about the inability to prioritize foraging habitats, but perhaps more so about the inability to draw a box (as is the requirement for critical habitat) around any one area with unique PCEs that may represent critical loggerhead foraging habitat compared to another neighboring area.

Comment 44: One commenter requested NMFS to designate the neritic area in and around the Chesapeake Bay as critical habitat. The commenter felt that the available information supports the designation for this area. Specifically, surveys show a relatively large abundance and density of loggerheads in neritic Virginia waters between the months of May and September. Satellite telemetry studies show that individual loggerheads have core habitat in the Chesapeake Bay. Dive data collected from Virginia

show dynamic behaviors for loggerheads in Chesapeake Bay and preliminary analysis of these data show potential foraging hotspots. Furthermore, resource selection analysis modeling on existing data could provide a statistically reportable probability that loggerheads will forage in specific areas. The commenter felt that this type of modeling should be conducted to identify critical foraging habitat. A large proportion of Virginia stranded loggerheads exhibit signs of anthropogenic injury. The commenter felt that these numbers qualify Virginia as a specific geographic area which may require special management considerations or protection. Finally, diet studies have shown that the primary prey of stranded Virginia loggerheads has shifted away from crustaceans and mollusks to bony fish over the past years— potentially putting the population at greater risk of fishery related serious injury and mortality. This may be due to a decrease in the availability of primary prey types in the Bay. The commenter asserted this shift creates a conservation concern directly related to foraging behavior in the Chesapeake Bay.

Response: See response to Comment 42.

Comments on Nearshore Reproductive Habitat

Comment 45: Several commenters were concerned that the proposed 1.6 km (1 mile) from the mean high water (MHW) datum seaward is too narrow an area to be identified as nearshore reproductive habitat for hatchling swim frenzy and for females during the internesting period. They argued that females utilize nearshore waters at least out to 5.0 km (3 mi). They stated that NMFS should designate areas up to 3 miles or further due to the dangers of fishing, offshore energy activities, and vessel traffic. The commenters suggest that NMFS did not determine whether a distance of three miles was essential to the conservation of the species, but rather that a distance of one mile was

more essential to the conservation of the species. Rather than the dispersal of sea turtles as they move farther from shore providing a reason to designate less critical habitat, it arguably should be reason to designate across more of the dispersal area.

Response: We considered using 1.6 km (1 mile), 4.8 km (3 mile), and distances further from shore, and weighed which distance was essential to the conservation of the species. As noted, the data indicate loggerheads use habitat even greater than 5.0 km (3 miles) from shore. However, in considering habitat needs of these turtles, waters closest to shore pose the greatest opportunity for disruption of the habitat functions necessary for offshore egress for hatchlings and transit to and from the nesting beach by nesting females. Internesting females use waters to 4.8 km (3 mile) and beyond, but they move up and down the shoreline as well. We chose not to attempt to include all habitat used by the internesting females and hatchlings; rather, we identified the physical or biological feature necessary to the conservation of loggerheads as the portion of nearshore waters adjacent to nesting beaches that are used by hatchlings to egress to the open-water environment as well as by nesting females to transit between beach and open water during the nesting season. For example, threats to the essential function of the hatchling swim frenzy habitat include physical impediments to offshore egress, predator concentration, disruption of wave angles used for orientation to open water, and the formation of strong longshore currents resulting from artificial structures (such as breakwaters or groins). The vast majority of threats would occur well within the 1.6 km line. Likewise, internesting female use of in-water habitats beyond the very nearshore waters is expected to be much more dispersed as discussed previously. A distance of 1.6 km from the MHW line includes the areas most in need of protection from potential

habitat disruptions such as the construction and placement of structures that could alter the nearshore habitat conditions and thus affect nesting female transit to and from the nesting beaches.

Comment 46: Several commenters were concerned that the proposed rule may not adequately address critical habitat for reproductively active adult females during the internesting period. They argued that the location of nearshore reproductive habitat should not be based on the locations of certain nesting beaches. Females move laterally along the shore and often occupy nearshore waters that are not seaward of the designated nesting beaches. Therefore, many of them will not be protected by the critical habitat designation if their internesting habitat is not off one of these designated beaches. The proposed critical habitat should extend along the entire shoreline in which loggerhead nesting occurs, not just off some of the beaches.

Response: We agree that internesting females move laterally along the shore and often occupy nearshore waters that are not seaward of the designated nesting beaches. However, we have determined that the portion of nearshore waters adjacent to nesting beaches that are used by hatchlings to egress to the open-water environment as well as by a large portion of nesting females to transit between beach and open water during the nesting season are the areas that contain the features that are essential to the conservation of loggerheads. These waters contain the vast majority of threats to expeditious ingress and egress from the beach that are experienced both by nesting females and hatchlings in their swim frenzy (see also Response 44).

Comment 47: One commenter felt that NMFS must designate waters off all occupied nesting beaches, and not only the beaches with the highest nesting density, as

proposed. They believe NMFS should designate waters off all occupied beaches because the physical and biological feature of nearshore reproductive habitat and its corresponding PCEs are present regardless of how the beaches rank in density. Additionally, they argued that tagging studies show that many sea turtles nesting on high-density beaches in the northern Gulf of Mexico will also nest on other low-density beaches as well.

Response: Section 3(5)(C) of the ESA states that, "Except under those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the … species." We defined the first PCE for nearshore reproductive habitat as "Nearshore waters directly off the highest density nesting beaches and their adjacent beaches as identified in 50 CFR 17.95(c) to 1.6 km (1 mile) offshore." Therefore the PBF and PCEs are not present in nearshore reproductive habitat off of all occupied nesting beaches but are in all those we designated. Most importantly, we defined the PBF and PCEs the way we did because we believe that the amount and distribution of critical habitat being designated for terrestrial and nearshore reproductive habitat is adequate to conserve (recover) all recovery units of this DPS.

The nearshore reproductive habitat off of high density beaches will conserve the species because they represent the highest nesting densities within each of the four recovery units, have a good geographic spatial distribution that will help ensure the protection of genetic diversity, and collectively provide a good representation of total nesting. The beaches and nearshore habitat adjacent to the primary high-density nesting beaches currently support loggerhead nesting and can serve as expansion areas should the

high-density nesting beaches be significantly degraded or temporarily or permanently lost through natural processes or upland development.

Comment 48: Several commenters felt USFWS and NMFS did not consider the historical nesting data distribution when they proposed critical habitat on nesting beaches and in nearshore reproductive habitat. They believe historical nesting data distribution shows that the geographical area most critical to the survival of the species occurs on the beaches of Florida. The commenters stated the data show that 79 percent of nesting activity occurs on 363 km of the Florida east coast between Ponce Inlet and Miami Beach (15 percent of the total of all beaches within the Northwest Atlantic Ocean DPS) while only 21 percent of nesting activity occurs within the 2,078 km (85 percent) comprising the rest of the DPS. Further, the data show that geographical locations at the northern extreme of the DPS (North Carolina) and the northern Gulf of Mexico have very low populations and nesting density.

Response: We understand that most nesting occurs along the east coast of Florida; however, highest density nesting is not the sole criteria by which to identify geographic areas that are critical to the conservation of the species. We intentionally divided loggerhead reproductive areas into the Recovery Units identified in the Recovery Plan (NMFS and USFWS 2008) and, within these areas, by State or regions within the State (for Florida). We did this to identify the following: (1) beaches with a good geographic spatial distribution to ensure protection of genetic diversity and thus adaptive potential of the DPS, (2) beaches that collectively provide a good representation of total nesting, and (3) beaches adjacent to high density nesting beaches that can serve as expansion areas as the DPS recovers or allow for movement

of nesting, since loggerheads nest on dynamic ocean beaches that can be degraded or lost over time through natural and anthropogenic processes.

While the geographical locations at the northern end of the DPS (North Carolina) and the northern Gulf of Mexico have very low populations and nesting density in comparison with Florida, they may also represent important genetic diversity and adaptive potential for the DPS, especially as our climate changes. In the case of the northern end of the DPS, these beaches also represent the portion of the DPS most likely to produce male loggerheads because lower nest temperatures result in a higher proportion of males. As a result, these areas serve a very important and unique purpose within the DPS.

Comment 49: One commenter requested NMFS add seven beach segments and exclude 23 beach segments of proposed nearshore reproductive habitat. The commenter argued that the seven beach segments, all located in Florida, should be added due to the high concentration of historical nesting activity at these locations and/or the proximity of these segments to other high density segments proposed for critical habitat. These segments have an average nest density of 55.3 nests/km and account for 10 percent of total nests. They consist of Ponce Inlet through New Smyrna Beach, Cape Canaveral Air Force Station, Jetty Park through Cocoa Beach, Patrick Air Force Base, Vero Beach to Ft. Pierce Inlet, Hillsboro Inlet to Port Everglades, and Port Everglades through Golden Beach.

The 23 beach segments recommended for exclusion are due to the low number of nests / low density they produce. These include eight in North Carolina, two in Mississippi, three in Alabama, and 10 in Florida. These segments have an average nest

density of 2.7 nests/km and account for 1.6 percent of total nests. They consist of Bogue Banks and Bear Island, North Carolina (LOGG-N-03), Topsail Island and Lea-Hutaff Island, North Carolina(LOGG-N-04), Pleasure Island, Bald Head Island, Oak Island and Holden Beach, North (LOGG-N-05), Long Key and Bahia Honda, Florida (LOGG-N-19), Perdido Key, including Gulf Islands National Seashore, Florida (LOGG-N-33), St. Joe Beach and Mexico Beach, Florida (LOGG-N-32), St. Joseph Peninsula (LOGG-N-31), St. Vincent Island, Little St George Island, St. George Island, and Dog Island, Florida (LOGG-N-31), Horn Island, MS (LOGG-N-35), Petit Bois Island, MS (LOGG-N-36), Mobile Bay-Little Lagoon Pass, AL (LOGG-N-34), Gulf State Park-Perdido Pass, AL (LOGG-N-33), Perdido Pass-Florida-Alabama line, AL (LOGG-N-33). The net effects of the changes would be (1) Number of Critical Habitat units would drop from 90 to 74; (2) critical habitat unit length would drop from 1,189.9 km (48 percent) to 927.9 km (38 percent); (3) average annual nesting event included in critical habitat units would increase from 55,204 (86 percent) to 60,691 (94 percent). These changes would increase the coverage of historical nesting activity but reduce the area that would be subjected to additional regulations and management processes as a result of designation.

Response: We appreciate the commenter's desire to include the greatest density of loggerhead nests and nearshore reproductive areas within the shortest span of coastline. However, while the Florida coast does contain the highest density of loggerhead nests, tenets of conservation biology dictate the importance of conserving the range of habitats and individuals in order to preserve both adaptive capability of turtles (turtles that have adapted to different conditions, exhibit different life history

strategies (such as overwintering off of North Carolina as opposed to migrating south) and/or those whose genetic makeup may reflect such adaptations), and a range of habitat options as conditions change, such as loss of habitat in low lying areas due to sea level rise. In the designation of critical habitat, we purposely identified high density nesting habitat in each state in order to protect a portion of nesting in each recovery unit. See Response 47 for more discussion of this subject.

Comment 50: Several commenters noted that 2012 nesting density for North Carolina was 3.25 nests per mile of beach. Bogue Banks nesting density was half of that at 1.6 nests per mile. Bogue Banks has had an average nesting density of 1.25 since 1996. When compared to South Carolina (24.8 nests per mile), Georgia (24 nests per mile of beach), and Florida (120 nests per mile), Bogue Banks does not qualify for critical habitat designation for either terrestrial or nearshore reproductive habitat.

Response: We are aware that the beaches in North Carolina have lower nesting densities than in some of the other parts of the species' nesting range. Please see Responses to Comments 47 and 48.

Comment 51: One commenter disagreed with designating nearshore reproductive habitat in Mississippi (LOGG-N-35 and LOGG-N-36). The commenter argued that there are far fewer nests annually in Mississippi compared to other identified habitat recovery units and nesting locations. They state that estimated densities of sea turtles in shelf areas seaward of the Mississippi barrier islands have historically been low (e.g., McDaniel et al., 2000). The commenter felt the data did not support designation of critical habitat for the two nearshore reproductive areas in Mississippi.

Response: Please see Responses to Comments 47 and 48.

Comment 52: Several commenters felt the inclusion of low density nesting sites adjacent to high density nesting sites was inappropriate. Some noted that 34 areas covering 739.3 miles of coastal waters proposed by NMFS for marine critical habitat designation are comprised of waters offshore beaches that are not high nesting density beaches. Marine habitat off of beaches that presently host low density nesting activity is not essential to the conservation of the loggerhead turtle because the "egress" and "transit" behaviors of a relatively small percentage of the total number of hatchlings or nesting females could be affected by activities in these proposed areas. They further note that the proposed rule indicates these adjacent beaches may or may not become important nesting beaches based on two future events which may be plausible, but which do not exist today and which may or may not occur in the future. Thus, the designation of these adjacent beaches and the marine areas offshore of these beaches is neither prudent nor determinable.

Response: Beaches adjacent to high density nesting beaches were proposed for designation by USFWS to serve as expansion areas as the DPS recovers and/or allow for movement of nesting because loggerheads nest on dynamic ocean beaches that can be degraded or lost over time through natural and anthropogenic processes. We support this and proposed designation of waters offshore of these beaches because it is important not only to identify high density nesting with a broad geographic representation but also to identify sufficient geographic area to allow the DPS to continue to recover and thrive. Given the strong nest site fidelity of loggerhead sea turtles, it made the most sense to identify areas adjacent to high density nesting beaches.

Comment 53: One commenter asked for clarity on designating areas offshore of beaches, which collectively account for 84 percent of all documented nests in order to satisfy the statutory standards of it being both prudent and essential to the conservation of the species. The commenter questioned whether some lower percent would be sufficient for the essential conservation of loggerhead turtles.

Response: Designating nearshore areas off of beaches that account for a high percentage of documented nests is appropriate, given that the species is threatened and needs to continue to recover. As stated in the rule, this habitat has been deemed essential to the conservation of the species because it does the following: (1) Protects nearshore habitat adjacent to a broad distribution of nesting sites; (2) allows for movement between beach areas depending on habitat availability (response to changing nature of coastal beach habitat) and supports genetic interchange; (3) allows for an increase in the size of each recovery unit to a level at which the threats of genetic, demographic, and normal environmental uncertainties are diminished; and (4) maintains its ability to withstand local or unit level environmental fluctuations or catastrophes.

Comment 54: NMFS proposed 36 marine areas for potential designation as critical habitat that relate to four specific aspects of loggerhead life history including nearshore reproductive habitat, wintering areas, breeding areas and migratory corridors (LOGG-N-1 through LOGG-N-36). Several aspects of loggerhead life history are seasonal and do not normally occur year-round. In turn, the proposed rule confirms that the use or occupation of these areas by loggerhead turtles is also seasonal. For example, it is obvious that by definition, wintering habitat is occupied by certain turtles during the

winter. The commenter felt the critical habitat designations did not adequately include a component that reflects seasonal behavior and occupation of the areas by loggerheads.

Response: Seasonal behavior and occupation of an area by loggerheads can be influenced by environmental conditions, which may vary year to year. Wherever possible, we specified seasonal components that reflect seasonal use by or behavior of loggerheads. For instance, where appropriate we specified the time of year or even months during which the physical or biological features in the proposed designated critical habitat occur or are of interest. For example, in the proposed rule, winter habitat is described as warm water (above 10°C from November through April) used by a high concentration of juveniles and adults during the winter months. These seasonal descriptors will assist Federal agencies when consulting under ESA section 7 on their activities in the area.

Comment 55: The proposed rule does not provide an adequate description of the PBF's and PCE's to support the inclusion of inlets as a component of nearshore reproductive habitat. The proposed rule should cite specific scientific research supporting the designation of inlets as nearshore reproductive habitat.

Response: We may designate an inclusive area when several habitats, each satisfying the requirements for designation as critical habitat, are located in proximity to one another (50 CFR 424.12(d)). In the cases of beaches along islands or that wrap around into an inlet, we started with the furthest point from the far end of the unit and extended it out seaward. Where beaches are adjacent and within 1.6 km (1 mile) of each other, nearshore areas are connected, either along the shoreline or by delineating on GIS a straight line from the end of one beach to the beginning of another, either from island to

island, or across an inlet or the mouth of an estuary. The furthest point at each end of the combined unit was extended seaward to identify the nearshore reproductive habitat area. This will provide more connectivity to the multiple adjacent areas and a clear designation for nearshore reproductive habitat. We did not designate critical habitat within inlets when linking nearshore reproductive units – just across the inlet from beach to beach.

Comment 56: One commenter was concerned that the proposed rule did not define what constitutes a "sufficient" condition of minimal obstructions and artificial lighting to allow transit through the surf zone. They felt such ambiguity is likely to result in inconsistency in regulatory requirements depending on the type and timing of future Federal actions.

Response: It is not possible to define what constitutes a "sufficient" condition because every situation will be different. It is not possible to apply one standard as the impact of the obstructions and lighting could vary depending on many variables about the obstructions themselves, the configuration, and other details of the nesting beach and nearshore waters. Although the condition is not standardized, we will be as consistent as possible in our consultations, given these constraints.

Comment 57: One commenter urged NMFS to include in its designation of nearshore reproductive habitat the areas offshore the following nesting beaches: Cape Hatteras and Cape Lookout, Figure 8 Island, Ocean Isle, and Sunset (North Carolina); Bay Point, Hilton Head, North, Pritchards, Bull, and Hunting (South Carolina); Little St. Simon and Jekyll Islands (Georgia).

Response: Both NMFS and USFWS acknowledge the importance of all loggerhead nesting beaches and nearshore reproductive habitat. These beaches and their

associated nearshore habitat did not meet the critical habitat selection criteria either because the nesting density was not in the upper quartile of nesting density by state or the island was not adjacent to a high density nesting beach. For this reason, we are not designating the areas as critical habitat. However, loggerheads, their nests and nearshore habitat will continue to be protected along these beaches because the DPS is listed as threatened under the ESA and any impacts to the habitat that affect individual turtles will be considered in a consultation with Federal action agencies.

Comment 58: Several commenters requested NMFS also consider additional nearshore habitat off nesting beaches in Lee and Collier Counties, Florida. Specifically, they requested beaches in Collier County from Doctor's Pass to Gordon Pass, as well as the beaches of Marco Island be designated. Likewise, the eastern end of Sanibel Island in Lee County should be designated. While these stretches of beach do not contain the same density as other areas proposed for designation under the USFWS proposal, these beaches are currently occupied and do appear to contain the physical and biological features, as well as constituent elements, of critical habitat as described in the USFWS federal register notice. Thus, the final NMFS rule should also reflect these areas in its designation. Specifically, areas adjacent to LOGG-N-28, between LOGG-N-27 and LOGG-N-26, and adjacent to LOGG-N-25, should be designated where neritic and nearshore habitats occur.

Response: We acknowledge the importance of the loggerhead nesting beaches and nearshore reproductive habitat in Lee and Collier Counties. However, these beaches and their associated nearshore habitat did not meet the critical habitat selection criteria either because the nesting density was not in the upper quartile of nesting density by state

or the island was not adjacent to a high density nesting beach. For this reason, we are not designating the areas as critical habitat. However, it is important to note that loggerheads, their nests and nearshore habitat will continue to be protected along these beaches because the DPS is listed as threatened under the ESA and any impacts to the habitat that affect individual turtles will be considered in a consultation with Federal action agencies.

Comment 59: Multiple commenters opposed designating critical habitat for either terrestrial or nearshore reproductive habitat for the Cape Hatteras National Seashore Recreational Area (CAHA) and Cape Lookout (CALO) and areas south along the North Carolina coast. CAHA and CALO to its south are far beyond the historical nesting range that has proven critical to the species. They argued that neither of these beaches have historically had a sufficient number of nests or density to warrant designation. Foreseeable events are unlikely to ever change this conclusion. USFWS and NMFS correctly excluded CAHA and CALO in the proposed designations.

Response: We determined that CAHA and CALO did not meet the critical habitat selection criteria because the nesting density was not in the upper quartile of nesting density by state or the island was not adjacent to a high density nesting beach. Loggerhead nests and nearshore reproductive habitat will continue to be protected along these beaches because the DPS is listed as threatened under the ESA and any impacts to the habitat that affect individual turtles will have to be considered in a consultation with Federal action agencies. The determination with regard to CAHA and CALO remained the same in the final rule.

Comment 60: One commenter felt that the nearshore waters out to the Sargassum weed should be designated as critical habitat during the loggerhead nesting season.

USFWS should designate as critical habitat the beaches from Currituck, North Carolina, and south, and concurrently NMFS should designate nearshore reproductive habitat off those beaches.

Response: With regard to the extent to which nearshore waters should be designated off the beach, it would be very difficult to tie it to a dynamic habitat feature such as Sargassum, and particularly difficult to tie it to Sargassum given that Sargassum can occur right up to shore. In our proposed rule, we discussed designating Sargassum habitat starting at the 10 m depth contour only to ensure that the Sargassum we might designate was out of the tidal influence (although we identified critical habitat for Sargassum more narrowly in the final rule, starting it at the western edge of the Gulf Stream in the Atlantic). With regard to designating nearshore reproductive habitat off of all beaches from Currituck, North Carolina and south, we appreciate the commenter's desire to protect these beaches and their nearshore habitat, but we used selection criteria to identify critical habitat (see responses to Comment 56) and many of these beaches and their associated nearshore habitat did not meet these criteria. For this reason, we are not designating them as critical habitat. However, loggerheads, their nests and nearshore habitat will continue to be protected along these beaches because the DPS is listed as threatened under the ESA and any impacts to the habitat that affect individual turtles will be considered in consultations with Federal action agencies.

Comment 61: Several commenters requested that NMFS not designate nearshore reproductive waters as critical habitat in Carteret County, North Carolina. They felt that existing active coastal shore protection programs, which include maintaining and enhancing "on land" and "in the water" habitats for loggerhead sea turtles, negated the

necessity of designating critical habitat in the area. The commenters stated these programs are compliant with stringent state and federal regulations, including sediment criteria, mandated construction windows, tilling requirements and other provisions, to ensure that habitat for threatened and endangered species, including the loggerhead sea turtle, are protected before, during and after beach nourishment activities.

Response: We appreciate all the efforts that are being made by Carteret County on behalf of loggerhead turtles and their habitat. However, ongoing conservation measures are not a cause for excluding an area from critical habitat. The nearshore reproductive habitat off Carteret County was designated based upon nesting beach selection criteria that was consistently applied throughout the DPS.

Comment 62: One commenter requested NMFS reduce the proposed 11.5 miles of nearshore reproductive critical habitat designation (LOGG-N-5-Pleasure Island, Bald Head Island, Oak Island, and Holden Beach, New Hanover and Brunswick Counties, North Carolina) to 4.5 miles to include the oceanfronts of Fort Fisher State Park, portions of the Zeke's Island Reserve south to the ephemeral Corncake Inlet and waterward east one mile. They stated that documented nesting data within the suggested 4.5 mile area has a 17-year average of 19 nests per year compared to eight and seven nests per year for Kure Beach and Carolina Beach, respectively. They highlighted several ongoing sea turtle monitoring and protection programs for this area, and felt the 4.5 mile area coincides more closely with the PBFs and PCEs for supporting reproductive and high-density nesting beaches described in the proposed rule. Conversely, they felt that the Kure Beach and Carolina Beach municipal oceanfronts and Freeman Park (totaling approximately seven miles) marginally contain the PBFs and PCEs for critical habitat

designation. Over one mile of Pleasure Island has shore parallel hardened structures located at the southern and northern termini of Kure Beach and Carolina Beach, respectively. In addition, Freeman Park has year-round off-road vehicle access averaging 2,200 vehicle visits per month. They felt designating a 4.5 mile area of virtually pristine habitat was more appropriate than an additional seven miles with marginal PBFs/PCEs.

Response: We appreciate the thought given to this proposal and gave it serious consideration, which included discussions with USFWS. However, we determined that these beaches do meet the selection criteria used to identify critical habitat and therefore they should be designated.

Comment 63: One commenter recommended NMFS develop and implement an agreement with Marine Corps Base (MCB) Camp Lejeune, North Carolina, that provides protection equivalent to critical habitat designation to those nearshore waters adjacent to the base.

Response: We consulted with the U.S. Marine Corps on their INRMP for MCB Camp Lejeune, which is the vehicle for such an agreement. Section 4(a)(3)(B)(i) of the ESA states that "the Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such a plan provides a benefit to the species for which critical habitat is proposed for designation." We did not designate critical habitat in the waters off Camp Lejeune because the base's INRMP was determined to provide a benefit to loggerheads through reference to Base Order 3570. 1C, Range and Training Regulations - Standing

Operating Procedures for Range Control. Camp Lejeune is currently in the process of updating their INRMP and the revised INRMP will explicitly detail loggerhead conservation measures for nearshore reproductive habitat rather than incorporating them by reference.

Comment 64: One commenter noted that a turtle sanctuary has existed since 1991 in the Atlantic Ocean in the vicinity of Hammock's Beach State Park and MCB Camp Lejeune, North Carolina, by Rule of the Marine Fisheries Commission (15A NCAC 03R.0101), which prohibits use of any commercial fishing gear within the bounds of the sanctuary between June 1 and August 31 each year. If this area also receives designation as critical habitat, the commenter encouraged NMFS to issue a minimal number of incidental take permits in order to maintain the functionality of the sanctuary.

Response: The sea turtle sanctuary and its prohibitions on fishing will remain in place with or without a critical habitat designation. It is not affected by a designation.

Comments on Wintering Habitat

Comment 65: One commenter was concerned that the migratory/winter (LOGGN-01) and winter (LOGGN-02) areas were too large and may entail no wake zones or slower speed restrictions for large vessels operating in the areas.

Response: The migratory and winter habitats do encompass a large portion of the waters off North Carolina, but that is due to the location and nature of the important habitat features off the North Carolina coast. We identified several factors/activities that may have an effect on one or more PBF or PCE and may require special management considerations. For winter habitat, those factors/activities include large-scale water temperature changes resulting from global climate change, and shifts in the patterns of

the Gulf Stream resulting from climate change. For the migratory habitat, the primary impact to the functionality of the migratory corridors would be a loss of passage conditions that allow for the free and efficient migration along the corridor. The activities that are anticipated to result in an impact to the PCEs and potential altered habitat conditions needed for efficient passage are oil and gas activities; power generation activities; dredging and disposal of sediments; channel blasting; marina and dock/pier development; offshore breakwaters; aquaculture structures; fishing activities, particularly those using fixed gear and arranged closely together over a wide geographic area; and noise pollution from construction, shipping and/or military activities. None of the identified special management considerations for winter or migratory habitat involve large vessel transiting impacts. We do not anticipate the designation of winter and migratory critical habitat will result in no wake zones or slower speed restrictions for large vessels operating in the areas.

Comments on Constricted Migratory Corridors

Comment 66: One commenter supported NMFS' proposed critical habitat designation of constricted migratory habitat. However, they felt NMFS should identify other migration routes, such as the waters off New England and designate them as critical habitat. Additionally, female loggerheads are known to transit between nesting beaches as far as 250 km apart during the same nesting season. Loggerhead occupation in these instances means that the species is utilizing some area to migrate from one place to another.

Response: We appreciate the commenter's desire to identify as critical habitat migratory paths that are well used in additional places, such as off the waters of New

England. Because loggerheads move readily up and down the east coast of the U.S. and within the Gulf of Mexico to forage, and move between foraging and reproductive areas, we focused on migratory corridors that are both highly used and constricted (limited in width) by land on one side and the edge of the continental shelf and Gulf Stream on the other side, and therefore might be more vulnerable to perturbations than other migratory areas. These constricted, high use corridors are used for traveling from nesting, breeding, and foraging sites by both juvenile and adult loggerheads. They provide the function of a relatively safe, efficient route for a large proportion of the population to move between areas that are vital to the species. During our review of the best available information, only the two migratory corridors off Florida and North Carolina fit the identified criteria (e.g., high use and constricted in width).

Comment 67: One commenter was concerned that the proposed critical habitat designation focused narrowly on a very small segment of the life cycle (nesting females and hatchlings) and areas used during a small proportion of a calendar year. They also recommended that NMFS designate migratory habitat in the Gulf of Mexico. The commenter argued that the absence of migratory habitat appears to represent the relative dearth of information, not lack of importance, as the loggerhead clearly does migrate seasonally through the Gulf of Mexico.

Response: The critical habitat designation does address nesting female and hatchling habitat use, but it is not limited to those life stages; juvenile and adult habitat use is considered in the migratory corridor, breeding, and winter habitat designations. As stated in Response 65, because loggerheads move readily up and down the east coast of the U.S. and within the Gulf of Mexico to forage, and move between foraging and

reproductive areas, we focused on migratory corridors that are both highly used and constricted (limited in width) by land on one side and the edge of the continental shelf and/or Gulf Stream on the other side, and therefore might be more vulnerable to perturbations than other migratory areas. The commenter is correct that the loggerhead sea turtle does migrate seasonally through the Gulf of Mexico, but we are unaware of similar constricted migratory routes in this area as those off Florida and North Carolina.

Comment 68: One commenter was concerned about the effects a critical habitat designation would have on dredging operations in Bogue Sound, North Carolina. The commenter asked if this proposal does not "impose an enforceable duty on state or local" governments, whether dredging would happen without Federal intervention.

Response: The critical habitat designation does not include any areas inside of Bogue Sound, North Carolina. The nearshore reproductive habitat (LOGG-N-03) being designated spans the nearshore waters from Beaufort Inlet to Bear Inlet (crossing Bogue Inlet) from the MHW line seaward 1.6 km. While it does cross Bogue Inlet, dredging operations at the inlets are not expected to be impacted beyond what is already required under ESA section 7 consultations.

Comments on Special Management Considerations

Comment 69: Multiple commenters felt the ESA only allows critical habitat designations when special management considerations may be necessary as evidenced by threat levels for that area. They felt that the physical and biological features of the areas proposed as designated critical habitat for loggerhead sea turtles already require special management consideration; therefore, additional protections are not necessary, are likely

to be redundant, and are unlikely to result in a measurable increase in conservation benefits.

Response: Whether an area "may require special management" is one criterion we use to identify critical habiat. The presence or lack of adequate management of an area prior to designation does not determine its consideration as critical habitat. See Natural Resources Defense Council v. United States Department of the Interior, 113 F.3d 1121, 1127 (9th Cir. 1997). Critical habitat is defined as "(i) the specific areas within the geographical area occupied by the species, at the time it is listed [under Section 4], on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species" (16 U.S.C. section 1532(5)(A)). The fact that special management is ongoing has been interpreted in court cases to mean that it fits the portion of the definition of critical habitat that states it may require special management considerations or protection. See, e.g., The Cape Hatteras Access Preservation Alliance v. United States Department of the Interior, 731 F. Supp. 2d 15, 26 (D.D.C. 2010); Center for Biological Diversity v. Norton, 240 F. Supp. 2d 1090, 1097-1100 (D. Ariz. 2003).

Comment 70: Several commenters stated that the assumption that economic impacts associated with critical habitat designation are limited to the administrative costs of consultation is not fully consistent with the discussion in the "special management considerations" section of the proposed rule. One commenter stated that this section of the proposed rule is vague and ambiguous, creating a concern that new conservation

measures may be required for certain activities (e.g., dredging or disposal). For example, the proposed rule discusses "geographical areas occupied by the species," on page 43012 (Breeding habitat), and states that "we were unable to identify specific habitat features within the breeding areas to distinguish them from other areas not used for breeding. In the face of a lack of clear habitat features, we believe it is reasonable to conclude that the importance of the breeding areas is based primarily on their locations." However, on page 43024 under the "special management considerations" section for "Breeding Habitat" the proposed rule includes "Dredging and disposal of sediments that affect concentrations of reproductive loggerheads." This raises the concern that some vaguely defined aspect of a dredging or disposal action would be deemed an adverse modification of critical habitat. The proposed rule also states that for wintering habitat "the water depth PCE could potentially be affected by extensive dredging and sediment disposal activities." This statement is ambiguous and should be clarified. The proposed rule should be revised to clearly identify how or whether the dredging and disposal of sediments would affect loggerheads.

Response: The descriptions under "Special Management Considerations" include, in the broadest terms possible, potential sources of impacts to critical habitat from various activity types that have been considered. That does not equate to an expectation that those impacts are in fact likely to occur; merely that they were in the universe of potential impacts considered. Our consideration of effects to the habitat has been ongoing since the original listing of loggerheads in 1978. Although we can now consider effects to habitat more directly, we do not anticipate changes in requirements of Federal projects and those with a Federal nexus – particularly because of our long

experience with the types of projects that are occurring and their effects. In particular, as part of the analysis of potential impacts "dredging and disposal of sediments that affect concentrations of reproductive loggerheads" was considered among the possible sources of adverse impacts to breeding habitat and "the water depth PCE could potentially be affected by extensive dredging and sediment disposal activities" was similarly considered for winter habitat. However, we could not determine reasonable scenarios where such adverse impacts to those habitat features would occur to any extent that would rise to the level of adversely affecting the essential features and/or PCEs identified for the critical habitat.

Comment 71: The proposed rule discusses "Dredging and disposal of sediments that results in altered habitat conditions needed for efficient passage." The proposed rule should more specifically identify the dredging and disposal actions believed to result in "altered habitat conditions."

Response: Because each project and project location varies, we cannot specifically identify which actions would alter the essential features of the proposed habitat. However, as stated in the draft Economic Analysis for the proposed rule:

> NMFS' primary concerns relative to construction, dredging, and disposal activities include obstructions to transit through the surf zone in nearshore reproductive habitat, manmade structure that attract predators or disrupt wave patterns in nearshore reproductive habitat, artificial lighting in nearshore reproductive habitat, and barriers to passage in constricted migratory corridors. Existing regulations and recommendations provide significant baseline protections to loggerhead habitat. In particular, NMFS makes recommendations

to reduce disturbance of loggerheads including timing restrictions, equipment requirements, lighting limits, and turtle monitoring as part of section 7 consultation due to the listing of the species. NMFS has not identified any conservation efforts that may be recommended to avoid adverse effects of these activities on the essential features of critical habitat that would not already be recommended to avoid potential adverse effects on the species itself. That is, NMFS anticipates that it is unlikely that critical habitat designation will generate a change in the outcome of future section 7 consultations due to the presence of critical habitat. This analysis accordingly does not forecast any changes to the scope, scale, or management of construction, dredging, or disposal activities due to critical habitat.

Comment 72: The proposed rule states that "For ongoing activities, we recognize that designation of critical habitat may trigger reinitiating past consultations. In most cases, we do not anticipate the outcome of reinitiated consultation to require significant additional conservation measures, because effects to habitat would likely have been assessed in the original consultation." The commenter requests that previously established conservation measures from past consultations be specifically identified and listed to help determine whether additional conservation measures would be needed to avoid the adverse modification of critical habitat.

Response: Due to the volume of past consultations and associated conservation measures, cataloging them all in the rule's preamble is not appropriate. Additionally, the potential need for additional conservation measures would be highly project specific, depending on the details of the project scope and the particular project location.

However, all past consultations are public records and can be accessed by any interested party, either through NMFS regional and headquarters websites, through the Public Consultation Tracking System (PCTS; also through the websites), and/or by requesting copies of specific consultations from the regional office that conducts them.

Comment 73: The proposed rule assumes that "Critical habitat designation is unlikely to change the conservation efforts recommended to avoid adverse effects on the loggerhead and its habitat as part of future section 7 consultations on most construction, dredging, and disposal activities" and states that the likely significance with respect to estimated impacts is "minor." The commenter felt that language within the proposed rule does not reflect this position. Impact categories from dredging and disposal that are discussed in the proposed rule are not addressed by the current conservation efforts that are documented in this report suggesting that additional conservation measures or reasonable and prudent alternatives may be required to avoid adverse modification of critical habitat.

Response: We do not agree that potential impacts discussed in the proposed rule will likely require additional conservation measures to avoid adverse modification of the critical habitat. The proposed rule included an extensive account of the various possible routes of effect to critical habitat by construction, dredging, and disposal activities. However, many of those possible impacts are not expected to occur, or to occur at a level that would affect or modify the essential features of the critical habitat. This issue is also addressed in the draft Economic Analysis for the proposed critical habitat rule, as quoted in the response to Comment 70 above.

Comment 74: The U.S. Army Corps of Engineers (USACE) expressed concerns about safety of and costs to their operations should light be restricted at night as a result of the designations.

Response: We do not anticipate any additional lighting restrictions or required lighting modifications beyond those already typically required by the Services for nighttime operations at or near sea turtle nesting beaches during the nesting and hatchling emergence seasons. While the critical habitat designation focuses on the habitat features important to loggerhead sea turtles, lighting requirements have been required for protection of the nesting sea turtles and hatchlings themselves in the past and should not change in the future due to designation of critical habitat.

Additional Comments

Comment 75: One commenter specified that the health of the Earth's geomagnetic fields of the ocean be included as a physical or biological feature and primary constituent element for loggerhead habitats because sea turtles depend upon the Earth's geomagnetic field to navigate. NMFS must recognize the potential of research to ascertain the absolute measures of cheloniid turtle navigational science, by preservation of all ocean regions that contribute to the health and procreation of the loggerhead.

Response: We acknowledge that research studies have indicated that sea turtles use the Earth's magnetic field as a source of navigational information (Lohmann et al. 2008, Lohmann et al. 2012, Lohmann et al. 2013). However, to make a determination that habitat is critical habitat in accordance with the ESA, it must have PBFs which "may require special management considerations or protection." We are

unaware of special management considerations that may apply to the earth's geomagnetic fields of the ocean. As such, the Earth's magnetic field was not identified as a PBF that would support critical habitat for loggerheads. We do acknowledge the benefit of continuing research on sea turtle navigational science.

F. Comments on Draft 4(b)(2) Report and the Draft Economic Analysis (DEA)

Comment 76: Multiple commenters state that the DEA underestimates the impacts of the proposed critical habitat designation in utilizing an incremental approach (i.e., it does not consider costs associated with baseline protections already afforded the loggerhead either as a result of its listing as a threatened DPS or as a result of other Federal, state, and local regulations). The commenters reference a decision by the U.S. Tenth Circuit Court of Appeals in 2001, which instructed USFWS to conduct a full analysis of all the economic impacts of proposed critical habitat, regardless of whether those impacts are attributable co-extensively to other causes (see, e.g., New Mexico Cattle Growers Assoc. v. United States Fish & Wildlife Service, 248 F.3d 1277, 1285 (10th Cir. 2001)).

Response: As stated in Section 1.2 of the DEA, subsequent to the U.S. Tenth Circuit Court of Appeals' decision, other courts have held that an incremental analysis of impacts stemming solely from the critical habitat rulemaking is proper (The Cape Hatteras Access Preservation Alliance v. United States Department of the Interior, 344 F. Supp. 2d 108 (D.D.C. 2004); Center for Biological Diversity v. United States Bureau of Land Management, 422 F. Supp.2d 1115 (N.D. Cal. 2006)). Relevant court decisions, and the use of an incremental approach for impact analyses, are addressed in a final rule issued by NMFS and USFWS on August 28, 2013, (78 FR 53058), revising the

regulations pertaining to impact analyses of critical habitat. In order to provide the most complete information to decision-makers, the DEA employs "without critical habitat" (baseline) and "with critical habitat" (incremental) scenarios. The DEA describes how baseline conservation efforts for the loggerhead may be implemented across the proposed designation, and describes and monetizes, where possible, the incremental impacts due specifically to the designation of critical habitat.

Comment 77: Multiple commenters expressed concern that the critical habitat designation will affect a wide variety of activities due to additional or new management efforts, operational conditions, and regulatory review. The commenters state that the designation may result in additional costs, regulatory hurdles, restrictions, delays, and prohibitions for a wide variety of activities, including coastal and inlet management; dredging and offshore disposal; beach maintenance and restoration; commercial and recreational fishing; boating, boatbuilding and marina activities; oil spill response; hurricane recovery; offshore energy development; power generation; aquaculture; shipping and/or military activities; dock and pier development; and tourism. The commenters state that these impacts will affect local, state and Federal economies and the public's access and enjoyment of marine waters, and that the DEA does not account for these impacts. Several commenters further assert that the NMFS determination that section 7 consultation analyses will result in no differences between recommendations to avoid jeopardy or adverse modification in occupied areas of critical habitat leads to an underestimate of the economic impacts of critical habitat designation for the loggerhead.

Response: As summarized on page ES-2 and detailed throughout the draft DEA, we anticipate that the impacts of critical habitat designation will most likely be limited to

incremental administrative effort to consider potential adverse modification as part of future section 7 consultations. This is because we anticipate that the substantial ongoing and currently recommended conservation efforts to avoid take of and jeopardy to the species would also most likely avoid adverse modification of critical habitat. Our consideration of effects to the habitat has been ongoing since the original listing of loggerheads in 1978. Although we can now consider effects to habitat more directly, we do not anticipate changes in requirements of Federal projects and those with a Federal nexus – particularly because of our long experience with the types of projects that are occurring and their effects. As a result, it is unlikely that critical habitat will generate new or different recommendations for conservation efforts for the loggerhead. The economic analysis accordingly quantifies costs of the designation in terms of additional effort for section 7 consultations and anticipates that the additional categories of costs described by the commenters (additional restrictions or prohibitions on activities) are unlikely. A potential exception to this finding identified in the economic analysis are activities that may alter the habitat in such a way as to impact transit back and forth from the nearshore waters to the beach for nesting loggerhead sea turtles (e.g., construction of large emergent structures parallel to the shore). Such projects have the potential to generate adverse modification of critical habitat but may or may not constitute a jeopardy concern. We may request modifications to these activities specifically to avoid adverse modification (e.g., recommending that structures be located farther offshore), therefore generating incremental costs of critical habitat. However, based on experience consulting on projects due to the presence of loggerheads, we have not identified a circumstance in

which the presence of critical habitat would have changed the conservation recommendations made.

Comment 78: One commenter states that the DEA is inconsistent on page ES-2 because it first states that the quantified impacts of the designation are limited to administrative costs, but then states that NMFS may recommend changes to activities to avoid destruction or adverse modification of critical habitat.

Response: Page ES-2 of the DEA describes the quantified impacts as being limited to additional administrative costs of consultations because we anticipate that it is unlikely that critical habitat designation will generate new or different recommendations for loggerhead conservation efforts. The DEA further describes, however, that the possible exceptions to this finding are activities that may alter the habitat in such a way as to impact transit back and forth from the nearshore waters to the beach for nesting loggerhead sea turtles (e.g., construction of large emergent structures parallel to the shore). Based on our experience consulting on projects due to the presence of the species and the suite of projects forecast to occur over the next ten years, however, we do not anticipate circumstances in which the presence of critical habitat would change the conservation recommendations made.

Comment 79: Multiple commenters state that the analysis did not account for the indirect impacts associated with litigation and project delays because forecasting the likelihood of litigation and the length of associated project delays is speculative and likely to be minor. The commenters assert that these indirect costs are likely and would be significant. One commenter states that in comments on the proposed polar bear

critical habitat designation, the oil and gas industry estimated the incremental cost of defending an additional claim related to adverse modification to be around $50,000.

Response: Section 3.4 of the DEA acknowledges the concern that critical habitat designation may generate project delays due to either increasing the length of time for us to review projects due to ESA section 7 consultation or litigation. In particular, the DEA recognizes that project delays may increase costs in two key ways: (1) The value of a project is maximized if its benefits are realized as soon as possible and its costs are postponed as long as possible and, therefore, changes in schedule can reduce the present value of the project; and (2) delays can result in additional logistical costs (e.g., extra expense of renting equipment during delays) and, potentially, the loss of low cost bids on projects. While potential exists for third party lawsuits to result from critical habitat designation, the likelihood, timing, and outcome of such lawsuits are uncertain. Quantifying costs associated with hypothetical outcomes of the critical habitat designation would be speculative. Therefore, the DEA qualitatively discusses these potential incremental impacts so that they can be considered along with the monetized costs presented in the report. In addition, the DEA does quantify some additional time required to consider adverse modification as part of the section 7 consultation process. We anticipate that this additional time, as reflected in the incremental administrative costs, will most likely be minor as it is unlikely that the proposed critical habitat designation will result in changes in the outcome of future ESA section 7 consultations.

Comments on Construction and Dredging Activities

Comment 80: One commenter states that the DEA identifies the restriction of hopper dredging to the months of December to March as a baseline impact that would be

recommended by NMFS for construction, dredging, and disposal projects carried out in areas being proposed for critical habitat designation. The commenter asserts that this is incorrect, as this measure is "self-imposed on many projects and was based on the risk of entrainment to sea turtles due to dredging activities and did not consider disposal activities." In addition, the commenter notes that the DEA documents the concern raised by the USACE that any additional timing restrictions placed on dredging activities due to the designation of critical habitat could result in significant cost increases. An additional comment expressed concern about timing restrictions for hopper dredging and the potential impact on the BOEM's Marine Minerals Program.

Response: The commenter is correct in that the DEA lists timing restrictions on hopper dredging among the measures that may be recommended under the baseline for dredging and disposal activities. While the potential conservation measures relevant to dredging and disposal activities are provided as a combined list in the DEA, the timing restrictions would only apply to dredging activities. Restrictions on hopper dredging for specific areas were included in the South Atlantic Regional Biological Opinion (SARBO) and Gulf Regional Biological Opinion (GRBO) for hopper dredging. As is explained in the DEA, we do not anticipate requesting further timing restrictions due to the designation of critical habitat and, therefore, incremental costs to these activities are not expected.

Comment 81: One commenter states that there are multiple borrow, beach placement, and offshore disposal areas associated with the USACE's coastal storm damage reduction and navigation missions that are located outside of 'harbors and channels' and overlap with the proposed designations. The comment suggests that

further coordination with the USACE is necessary to assure that all projects are documented and to better evaluate the project area overlaps and associated economic implications.

Response: In preparation of the DEA, we requested information from the USACE South Atlantic Division (encompassing the Wilmington, Charleston, Savannah, Jacksonville, and Mobile Districts) on USACE activities that may be affected by the proposed designation of critical habitat for the loggerhead. The information provided was discussed in the DEA and used to verify that the consultation history is a reasonable indicator of the frequency and location of future projects. The Final Economic Analysis (FEA) integrates additional information provided by BOEM during the public comment period on sand placement projects undertaken or authorized by USACE that rely on sand from OCS borrow areas.

Comment 82: One comment stated that BOEM expects an increase in future requests for sand to restore shoreline habitat and that the DEA does not adequately address all future nourishment projects. The commenter provided a ten-year projection of all future projects, including USACE regulatory and civil works projects. Lastly, the commenter noted that BOEM should be included in the discussion regarding consultations on construction, dredging, and channelization projects, and in exhibits describing Marine Minerals Program projects.

Response: Chapter 3 of the FEA incorporates additional information provided on future nourishment and renourishment projects using outer continental shelf (OCS) sand. In total, BOEM is expected to consult with us on offshore dredging for 101 beach nourishment and renourishment projects between 2014 and 2023. In addition, the FEA

incorporates a discussion of areas in which BOEM expects that dredging of OCS sand may increase. However, this increase will be offset by a decrease in consultations between the USACE and NMFS or USFWS for dredging of state sand resources. Therefore, the rate of consultation is not expected to change. The discussion and exhibits in the FEA are updated accordingly.

Comment 83: One commenter notes that the potential mitigation measures listed in the DEA as standard are not standard and/or consistent across all sand nourishment projects. For example, recycling bins and educational signage have not been regularly included in Biological Opinions from NMFS. Inclusion of additional mitigation measures would increase costs and should be included in the DEA.

Response: Section 3.3.1 of the DEA provides a description of baseline protections for loggerhead related to construction, dredging, and disposal activities. Included in this description is a list of measures that we regularly recommend in consultations to minimize the impact of construction activities on the loggerhead, which include displaying educational signage and providing recycling bins for used fishing line to decrease turtle entanglement or ingestion of marine debris. This list is not comprehensive, nor are all of the listed measures recommended in all section 7 consultations; rather, it is meant to convey the breadth of conservation efforts that may be undertaken in the baseline, regardless of the presence of critical habitat. As described in the DEA, it is unlikely that we will recommend additional conservation measures for such projects as a result of critical habitat designation for the loggerhead.

Comment 84: One commenter states that while the nearshore reproductive habitat does not extend into the outer continental shelf (OCS) waters, it may include areas that

are potential rehandling sites for dredged material and the impact to the potential use of these sites and any associated costs should be considered in the DEA.

Response: Costs associated with dredging of OCS sand were attributed to particular critical habitat units using GIS data of borrow sites provided by BOEM. No additional information was provided in this comment on the location of rehandling sites or the projects that may make use of such sites. If consultation on rehandling sites in nearshore reproductive habitat does occur, we anticipate that baseline protections for the loggerhead would provide adequate protection of loggerhead habitat and, as such, incremental costs would be limited to the additional administrative cost of considering adverse modification during consultation.

Comments on Oil And Gas Activities

Comment 85: One commenter stated that the DEA significantly underestimates costs of the designation to offshore oil and gas activities because it only accounts for consultation costs in areas where there are existing offshore oil and gas operations, and not the South- and Mid-Atlantic planning areas where additional oil and gas leasing is being considered and renewable energy projects are already occurring. In addition, for the entire Western and Central Gulf of Mexico Planning areas, the DEA estimates that there will be only three programmatic consultations in the next ten years, but there have been six consultations in this area in the last five years. Also, the commenter states that because the DEA assumes section 7 consultations will already be required due to the presence of the loggerhead, it assigns a value of $4,200 as the incremental administrative cost the government would incur in each of the consultations and assumes no costs for industry, which results in an underestimate of costs.

Response: Chapter 5 of the DEA describes the potential for future expansion of oil and gas activities into the South and Mid-Atlantic Planning Areas. In particular, the DEA describes a recent (2013) programmatic consultation on seismic studies in these planning areas; however, leasing in these areas is not anticipated before 2017. While the DEA acknowledges that additional consultations may occur on oil and gas drilling activities after 2017 in the Mid- and South Planning areas, absent the findings of the ongoing seismic testing, the frequency and locations of these potential activities is significantly uncertain and forecasting the nature of these activities for the purposes of this analysis would be speculative. The analysis accordingly describes that administrative costs of consultations in these areas is likely underestimated. However, as described in the DEA, critical habitat designation for the loggerhead is unlikely to change the outcome of future consultations on oil and gas activities. Furthermore, the DEA describes that, although six consultations have occurred in the Western and Central Gulf of Mexico Planning Areas over the last five years, these consultations are sporadic and relate to unpredictable incidents (e.g., oil spills). We are unable to predict the frequency of such events into the future but anticipate the additional costs associated with critical habitat on these consultations would be minimal.

To minimize consultation on individual projects, we consult on oil and gas activities at the programmatic level in the Western and Central Gulf of Mexico Planning Areas. Thus, we anticipate approximately three programmatic-level consultations with BOEM occurring at the time of lease sales. We do not anticipate third parties (i.e., industry) will be a party to the programmatic consultations. To the extent that third parties are involved, the analysis underestimates administrative costs. However, these

consultations would occur regardless of critical habitat designation for the loggerhead and any incremental administrative effort on the part of third parties to consider critical habitat would most likely be minimal. Furthermore, the critical habitat designation is unlikely to change the outcome of these programmatic consultations.

Comment 86: One commenter states that the DEA is incorrect in stating that "additional requirements placed on operators mandate that industry surveyors be present during exploration and operations that look specifically for sea turtles and Sargassum." The commenter states that BOEM does not require operators to look for Sargassum but does require the industry to have Protected Species Observers onboard seismic survey vessels.

Response: The FEA clarifies that Protected Species Observers, and not Sargassum surveyors, are aboard seismic survey vessels.

Comments on Fisheries

Comment 87: One commenter states that all of the shrimp fishing activities in the nearshore reproductive habitat areas proposed for designation in the Southeast region are limited to State waters and therefore lack a Federal nexus and requests that this be clarified in the final report. The commenter also requests that potential impacts on the penaeid and rock shrimp fisheries caused by the designation of critical habitat in LOGG-N-17 and LOGG-N-19 be described in the final report.

Response: Section 4.2.1 of the DEA states that the fisheries operating in nearshore reproductive habitat are state-managed and therefore typically lack the Federal nexus to trigger section 7 consultation. Critical habitat designation for the loggerhead is therefore unlikely to generate the need for section 7 consultation and associated economic

impacts to fisheries occurring in nearshore reproductive habitat. With respect to the penaeid and rock shrimp fisheries in Units LOGG-N-17 and LOGG-N-19, the DEA quantifies relatively minor additional administrative costs to consider critical habitat as part of consultations on any amendments to Fisheries Management Plans (FMPs). However, as described in Chapter 4 of the DEA, we have not identified any conservation efforts that may be recommended to avoid adverse effects of fisheries on critical habitat that would not already be recommended due to the listing status of the species. That is, critical habitat is not expected to result in any additional changes to the scope, scale, or management of these fisheries.

Comment 88: One commenter asserted that the DEA underestimates costs on commercial fishing activities. First, the DEA quantifies only $29,000 in costs annually for fisheries and the salary of one NMFS enforcement agent in the State would cost more than $29,000 for his salary. Second, the DEA states that most fisheries occur in state waters and are not subject to a Federal nexus; however, NMFS and U.S. Coast Guard enforcement agents board vessels to check compliance on turtle excluder devices. In addition, this year the sea scallop fishery was required to pull new fishing gear at a cost to the industry of $2.0 million.

Response: The costs described in this comment are not related to critical habitat designation. Critical habitat designation does not require presence of enforcement officers nor is critical habitat designation for the loggerhead anticipated to result in new gear restrictions for fisheries. Critical habitat requires that activities with a Federal nexus be subject to consultation with NMFS or USFWS to assure that they do not adversely modify critical habitat. The costs associated with regulations pertaining to turtle excluder

devices and other fisheries regulations described here are outside the scope of the economic analysis because they are not affected by decisions related to the designation of critical habitat.

Comments on Other Economic Activities or Issues

Comment 89: One commenter stated that there are several inaccuracies in the DEA regarding the status and process of BOEM's offshore wind leasing program, and that the DEA must be updated to best represent these activities.

Response: Chapter 6 of the FEA integrates updated information from BOEM regarding the status of their offshore wind energy programs. These updates include revising the schedule of three proposed informal consultations in New Jersey (2014), Maryland (2016), and North Carolina (2016) into one formal consultation currently being undertaken (2014), and adding potential costs associated with reinitiation of six previously completed informal consultations as a result of the designation of loggerhead critical habitat.

Comment 90: One commenter asked how critical habitat affects private property owners if a Federal permit is required. The commenter requested clarification regarding whether critical habitat would devalue the property if the private landowner cannot do anything with it.

Response: The areas being considered for marine critical habitat for the loggerhead do not include private lands. Thus, the economic analysis does not forecast impacts to values of private lands. With regard to federally permitted projects, we have been considering the effects to loggerhead habitat since the original listing of loggerheads

in 1978, and we do not anticipate changes in requirements of federally permitted projects as a result of this designation.

Comment 91: One commenter agreed with the conclusion of the DEA that the designation is not likely to result in additional conservation efforts to benefit the loggerhead. They further stated that NMFS attempted to remediate this DEA conclusion by stating, without support, that critical habitat designation results in improved 'education and outreach' and 'additional protections under state and local authorities.' The commenter felt that not only are such statements unsupported and somewhat questionable, they are undermined by, and in direct conflict with, the DEA.

Response: We do not believe that our statement that critical habitat designation can have non-regulatory impacts is in conflict with the DEA. In the many years since critical habitat has been designated for listed species, we have found that awareness of the importance of that habitat on the part of the public as well as planners, government entities and others has promoted the conservation of the species. As stated in responses to other comments and in the DEA, we do not anticipate that Federal agencies or others with a Federal nexus will be required to take additional conservation efforts for any ongoing actions because the habitat has been addressed, albeit in a less direct way, through section 7 jeopardy consultations for many years. This is the reason that the DEA concludes that no conservation actions will need to be taken and very minimal economic costs will be incurred as a result of designation.

Comment 92: Another commenter stated that the economic analysis provides inadequate information to do the balancing test regarding whether the benefits of excluding an area outweigh the benefits of including it as critical habitat.

Response: We believe the economic analysis provides adequate information to do the balancing test. The economic impacts for each unit were estimated to the best of our ability and, because we selected our critical habitat units to reflect areas that have high conservation value, we were able to do the balancing test regarding the benefits of exclusion vs. the benefits of inclusion.

Comment 93: One commenter requested clarification that the Federal requirement for certain shrimp trawl fisheries to use compliant turtle excluder devices does not constitute a Federal nexus.

Response: The requirement to use turtle excluder devices is not related to the designation of critical habitat, even if related to the conservation of loggerhead sea turtles, because it exists regardless of this designation, i.e., is part of the baseline and not an additional cost or incremental impact. For this reason, costs associated with regulations pertaining to turtle excluder devices and other fisheries regulations are outside the scope of the economic analysis.

Comment 94: The North Carolina Department of Transportation (NCDOT) requested exclusion of critical habitat in order to maintain the operation of the NC 12 transportation facility. If a beach nourishment alternative is pursued, then the designated critical habitat will be impacted both by the placement of sand along the ocean beach face and the dredging of sand from an offshore borrow site. They requested information on whether a programmatic agreement between NMFS, USFWS, and the NCDOT would be required to allow flexibility in the construction and maintenance of our transportation projects along the coast. They were

concerned that this designation could create obstacles that would make fulfilling their mission to the travelling public an impossibility.

Response: We do not consider an exclusion from critical habitat to be appropriate in this case as the expected economic impacts are expected to be minimal and do not warrant exclusion under the ESA. Although beach nourishment falls primarily under the purview of the USFWS, neither beach nourishment nor the dredging of sand from offshore borrow sites are expected to be significantly impacted by the critical habitat designation as proposed. Those activities are already considered under ESA section 7 consultations, with resulting associated required conservation measures. Such measures already limit the impacts to the essential features now described in the proposed critical habitat designation and thus, such operations are not expected to be impacted beyond what is already required under existing ESA consultations.

Comment 95: Multiple commenters believe the designation will actually increase the degree of threat to loggerhead sea turtles by making it much more difficult for local governments and others to conduct active coastal shore damage reduction projects, which serve to increase and enhance loggerhead sea turtle nesting area and habitat. They claim designation of critical habitat would affect a wide variety of coastal projects involving a Federal nexus. They believe that if critical habitat is designated for the loggerhead sea turtle, these existing, successful programs will be burdened with additional and unnecessary measures and will become more costly and difficult to implement, which increases the threat to the loggerhead sea turtle and its habitat.

Response: We cannot foresee how designation of critical habitat would increase the threat to loggerhead sea turtles. As stated throughout the rule and the DEA, we do not anticipate requiring additional conservation measures beyond those already employed, and therefore do not anticipate that projects such as these will be more costly and difficult to implement.

Comment 96: Multiple commenters felt that designation of critical habitat would benefit local economies by increasing tourism. These commenters felt the designation would raise awareness of the environmental significance of the area and draw more visitors. Other commenters felt the designation would have a negative impact on tourism by increasing restrictions to access.

Response: We do not anticipate any restrictions to access to loggerhead critical habitat. It is possible that designation of critical habitat will draw more visitors, but we were not able to incorporate this into the economic analysis as we do not have data on which to base this possibility.

Comment 97: One commenter felt NMFS had prepared an inaccurate and incomplete draft economic analysis and failed to recognize the successful programs that North Carolina and its local governments and communities have in place to ensure the survival and recovery of the loggerhead sea turtle. Thus, they felt NMFS did not properly consider whether the benefits of excluding the area actually outweighed the benefits of including it.

Response: We believe our economic analysis is thorough and represents the best available information. It accurately portrays costs of designation, which are minimal.

While we appreciate North Carolina's ongoing conservation efforts, we do not have a basis to exclude areas from critical habitat.

IV. Critical Habitat Identification

Section 4 of the ESA requires the designation of critical habitat for threatened and endangered species "to the maximum extent prudent and determinable," and provides for the revision of critical habitat based on the best scientific data available, as appropriate (16 U.S.C. 1533(a)(3)(A); 16 U.S.C. 1533(b)(2)). Critical habitat may only be designated in areas under U.S. jurisdiction (50 CFR 424.12(h)).

Section 4(b)(2) of the ESA requires designation of critical habitat for threatened and endangered species ''on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.'' Section 4(b)(2) also grants the Secretary of Commerce (Secretary) discretion to exclude any area from critical habitat if she determines ''the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat.'' However, the Secretary may not exclude areas that ''will result in the extinction of the species.''

The ESA defines critical habitat in section 3(5)(A) as: ''(i) the specific areas within the geographical area occupied by the species, at the time it is listed . . . on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed upon a determination by the Secretary that such areas are essential for the conservation of the species.''

Joint NMFS–USFWS regulations emphasize that in identifying critical habitat, the agencies shall consider those PBFs that are essential to the conservation of a given species and that may require special management considerations or protection (50 CFR 424.12(b)). The regulations provide examples of the kinds of essential features to consider, which may include but are not limited to:

(1) Space for individual and population growth, and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally

(5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The regulations also require agencies to "focus on the principal biological or physical constituent elements" (hereafter referred to as "Primary Constituent Elements" or PCEs) within the specific areas considered for designation, which "may include, but are not limited to, the following: … nesting grounds, spawning sites, feeding sites, seasonal wetland or dryland, water quality or quantity, … geological formation, vegetation type, tide, and specific soil types" (50 CFR 424.12(b)). There is inherent overlap between what may constitute a PBF and what can be enumerated as a PCE. When we set out a list of PCEs with a PBF, our intent is that the PBF exists whenever a sufficient subset of PCEs is present to allow the habitat to serve the conservation function for a single life stage. It is not necessary for all the PCEs to occur simultaneously.

Section 4(b)(2) of the ESA and our implementing regulations (50 CFR 424.12(a)), require designation of critical habitat to be based on the best scientific data available.

Once critical habitat is designated, section 7 of the ESA requires Federal agencies to ensure they do not fund, authorize, or carry out any actions that are likely to result in the "destruction or adverse modification" of that habitat (16 U.S.C. section 1536(a)(2)). This standard is separate from the section 7 requirement that Federal agencies must ensure that their actions are not likely to "jeopardize the continued existence of" listed species.

We reviewed the best available assessments for loggerheads by habitat category (e.g., neritic, oceanic), which for most cases was the "Assessment of the loggerhead turtle population in the western North Atlantic Ocean" conducted by the TEWG (2009). This review resulted in the identification of relatively high use areas (generally those with 60 or more turtle days in the TEWG satellite tracking analysis figures), which served as a proxy for identifying important habitat areas, especially as there is little quantitative data on loggerhead use of offshore waters. This information was supplemented by known and available studies that were not included in the TEWG analysis or occurred subsequent to it. For the nearshore reproductive habitat, we relied on data and information on nesting distribution and patterns to identify nearshore reproductive areas associated with high density nesting beaches, as described in the USFWS proposed rule to designate critical habitat for the Northwest Atlantic Ocean DPS (78 FR 18000, March 25, 2013). For the Sargassum habitat, we reviewed data on the distribution of Sargassum, its relationship to loggerhead habitat needs, and its use by loggerheads.

A. Geographical Area Occupied by the Species

As noted above, the statutory definition of "critical habitat" requires that we initially identify the geographical area occupied by the species at the time of its listing. We have interpreted ''geographical area occupied'' in the definition of critical habitat to mean the range of the species at the time of listing. For both of these DPSs, there is no known unoccupied marine habitat within their historic range. Critical habitat can only be designated in U.S. territory, and thus designation is limited to the Northwest Atlantic Ocean and North Pacific Ocean DPSs within the U.S. Economic Exclusive Zone (EEZ). We identified the geographical area occupied for the Northwest Atlantic Ocean DPS as south of 60° N. lat., north of the equator, and west of 40° W. long., and for the North Pacific Ocean DPS as south of 60° N. lat. and north of the equator. While this is the range occupied by the species, we reviewed data for only U.S. EEZ waters within that range. Within the U.S. EEZ, loggerhead sea turtle nesting occurs only within the Northwest Atlantic Ocean DPS. Terrestrial (nesting) habitat was identified by the USFWS and addressed in a separate rulemaking.

1. Northwest Atlantic Ocean DPS

We analyzed three ecosystem types when identifying critical habitat: terrestrial, neritic, and oceanic. Because we have jurisdiction only in the marine environment, the proposed rule (78 FR 43006, July 18, 2013) examined areas within the broad categories of neritic and oceanic habitat. Sargassum habitat was added as a separate category, as it occurs in both neritic and oceanic habitat. For more information on each of these habitats and the methods we used to identify them, we refer the reader to the proposed rule (78 FR 43006, July 18, 2013).

Neritic habitat consists of the nearshore marine environment from the surface to the sea floor where water depths do not exceed 200 m (656 ft), including inshore bays and estuaries. For purposes of describing potential critical habitat in the Atlantic Ocean and the physical or biological features essential to the conservation of the species, we divided consideration of neritic habitat into several habitat types that reflect key life history phases of the loggerhead sea turtle: (1) Nearshore Reproductive Habitat (which includes hatchling swim frenzy and internesting female habitat); (2) Foraging Habitat; (3) Wintering Habitat; (4) Breeding Habitat; and (5) Constricted Migratory Habitat. All of these habitat types were labeled Neritic Habitat in units identified as critical habitat.

Sargassum habitat occurs in both the neritic and oceanic environment. Most pelagic Sargassum in the Atlantic Ocean circulates between 20° N. and 40° N. lat., and between 30° W. long. and the western edge of the Florida Current/Gulf Stream, and the Gulf of Mexico (SAFMC 2002; Dooley 1972; Gower and King 2011). The survival of loggerhead sea turtles, in particular the post-hatchling and small oceanic juvenile stages, is dependent upon suitable foraging and shelter habitat, both of which are provided by the algae of the genus Sargassum in the Atlantic Ocean and Gulf of Mexico (Witherington et al. 2012). Although no Sargassum habitat was proposed for designation, we specifically requested comments on whether to include Sargassum habitat as critical habitat and, if so, whether we should include the entire areas, features, and elements described in the ''Description of Physical or Biological Features and Primary Constituent Elements and Identification of Specific Sites'' section of the proposed rule. Potential Sargassum habitat included all U.S. waters south of 40° N. lat. in the Atlantic Ocean and Gulf of

Mexico from the 10 m depth contour to the outer boundary of the EEZ, separated into two large contiguous areas, the Gulf of Mexico and the U.S. Atlantic Ocean.

Although adults transition between neritic and oceanic habitat, oceanic habitat is predominantly used by young loggerhead sea turtles that leave neritic areas as neonates or young juveniles and remain in oceanic habitat moving with the predominant ocean gyres for several years. The ocean currents and gyres, such as the Gulf Stream and Florida Loop Current, serve as important dispersal mechanisms for hatchlings and neonate sea turtles as well as vital developmental habitat for those early age classes. The presence of Sargassum is important for the oceanic juvenile life stage, as it offers a concentrated, protected foraging area, with facilitated dispersal by associated oceanic currents. Aside from Sargassum habitat, we were unable to identify oceanic habitat essential to conservation of the species within the Northwest Atlantic Ocean DPS.

2. North Pacific Ocean DPS

In the proposed rule (78 FR 43006, July 18, 2013), we did not divide the north Pacific Ocean by ecosystem (i.e., terrestrial, neritic, and oceanic zones) and habitat type, as with the Northwest Atlantic Ocean DPS, due to the limited occurrence of loggerheads within the North Pacific Ocean DPS in habitats under U.S. jurisdiction. Loggerhead sea turtle habitat in the North Pacific Ocean occurs between 28° N. and 40° N. lat. (Polovina et al. 2004). Within the U.S. EEZ, loggerheads are found only in waters northwest of the Hawaiian Islands, and off the U.S. west coast, primarily the Southern California Bight, south of Point Conception. No loggerhead nesting occurs within U.S. jurisdiction.
In the central North Pacific Ocean, the Transition Zone Chlorophyll Front is favored foraging and developmental habitat for juvenile loggerhead turtles (Polovina et al. 2001;

Kobayashi et al. 2008). Within the U.S. EEZ around Hawaii, North Pacific Ocean DPS developmental, foraging and transiting habitat occurs seasonally within the southernmost fringe of the Transition Zone Chlorophyll Front, north and northwest of Hawaii (Polovina et al. 2006); however, the area extending into the U.S. EEZ is very limited compared to the foraging area overall. Loggerheads documented off the U.S. west coast are primarily found south of Point Conception, the northern boundary of the Southern California Bight, in very low numbers. No critical habitat was identified in the proposed rule. For more information on loggerhead habitat in the North Pacific Ocean DPS, we refer the reader to the proposed rule (78 FR 43006, July 18, 2013).

B. Description of Physical or Biological Features and Primary Constituent Elements, and Identification of Specific Areas

Based on the best available scientific information, we identified PBFs of habitat essential for the conservation of the loggerhead sea turtle, the PCEs that support the PBFs, and the specific areas identified using these PBFs and PCEs. A description of the means used to identify PBFs, PCEs and specific areas can be found in the proposed rule (78 FR 18000, March 25, 2013), with the exception of the Sargassum units which were not proposed but were discussed in the proposed rule, and are described fully here. Because information that allowed us to use quantitative criteria (such as was done for terrestrial habitat) was lacking, we necessarily identified most marine habitat in a more qualitative manner.

1. Northwest Atlantic Ocean DPS

PBFs and PCEs were identified for Neritic (nearshore reproductive, foraging, winter, breeding, and migratory) and Sargassum Habitat. No PBFs or PCEs were

identified for Oceanic Habitat in the Northwest Atlantic Ocean DPS because we could find no specific habitat features that were essential to the conservation of the species within this area other than Sargassum.

The PBFs and PCEs of neritic habitat occur in the five categories of habitat discussed above: Nearshore reproductive, foraging, winter, breeding, and constricted migratory.

Nearshore Reproductive Habitat

We describe the PBF of nearshore reproductive habitat as a portion of the nearshore waters adjacent to nesting beaches that are used by hatchlings to egress to the open-water environment as well as by nesting females to transit between beach and open water during the nesting season.

PCEs that support this habitat are the following:

(1) Nearshore waters directly off the highest density nesting beaches and their adjacent beaches as identified in 50 CFR 17.95(c) to 1.6 km (1 mile) offshore;

(2) Waters sufficiently free of obstructions or artificial lighting to allow transit through the surf zone and outward toward open water; and

(3) Waters with minimal manmade 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.

The identification of nearshore reproductive habitat was based primarily on the location of beaches identified as high density nesting beaches by the USFWS (50 CFR 17.95(c)), as well as beaches adjacent to the high density nesting beaches that can serve

as expansion areas, in accordance with the process described by the USFWS in their proposed rule (78 FR 18000, March 25, 2013). In doing so, we identified 36 units of nearshore reproductive critical habitat.

Because the nesting beach habitat being designated by the USFWS has the densest nesting within given geographic locations, the greatest number of hatchlings is presumed to be produced on these beaches and either the greatest number of nesting females and/or the most productive females presumably nest on these beaches. Nearshore reproductive habitat includes waters off of three high density or expansion nesting beaches that are not being designated as terrestrial critical habitat by USFWS because the beaches occur on military lands that are not designated due to the existence of an adequate INRMP. They are identified here as essential nearshore reproductive habitat because their INRMPs do not address waters off the beach. However, there are two nearshore areas under military control that we did not designate due to existence of an adequate INRMP: Naval Air Station Key West and MCB Camp Lejeune. Although the latter was included in our proposed rule, it is not included in the final designation because we determined that their INRMP benefits loggerheads in waters off the beach.

Designation of nearshore reproductive habitat will conserve the Northwest Atlantic Ocean DPS by doing the following: (1) Protecting nearshore habitat adjacent to a broad distribution of nesting sites; (2) allowing for movement between nearshore reproductive areas depending on habitat availability (response to changing nature of coastal beach habitat) and support genetic interchange; (3) allowing for an increase in the size of each recovery unit to a level at which the threats of genetic, demographic, and

normal environmental uncertainties are diminished; and (4) maintaining their ability to withstand local or unit level environmental fluctuations or catastrophes.

Foraging Habitat

We describe the PBF of foraging habitat as specific sites on the continental shelf or in estuarine waters frequently used by large numbers of juveniles or adults as foraging areas.

The PCEs that support this habitat are the following:

(1) Sufficient prey availability and quality, such as benthic invertebrates, including crabs (spider, rock, lady, hermit, blue, horseshoe), mollusks, echinoderms and sea pens; and

(2) Water temperatures to support loggerhead inhabitance, generally above 10° C.

We identified high use areas throughout the Atlantic Ocean and Gulf of Mexico, as these areas likely have habitat features that are essential to the conservation of the species. In order to identify high use foraging areas, available data on sea turtle distribution were considered. Specifically, we evaluated information from aerial and shipboard surveys, stable isotope analyses, satellite telemetry studies, and in-water studies to identify areas of known high use foraging habitat.

Given the wide-spread nature of foraging loggerheads in the Northwest Atlantic Ocean and the lack of clear habitat features of foraging areas, we were unsuccessful in identifying specific high value sites as foraging critical habitat for loggerheads in the proposed rule (78 FR 43006, July 18, 2013). Although we identified numerous sites of known foraging habitat in the proposed rule and requested information from the public as

to the importance of these areas or other areas to foraging, as well as habitat features for foraging areas (78 FR 43006, July 18, 2003), we remain unable to identify areas that are more essential than the rest of the continental shelf and associated bays and sounds, and have not identified any units of foraging critical habitat in this final rule.

Winter Habitat

We describe the PBF of winter habitat as warm water habitat south of Cape Hatteras, North Carolina near the western edge of the Gulf Stream used by a high concentration of juveniles and adults during the winter months.

PCEs that support this habitat are the following:

(1) Water temperatures above 10° C from November through April;

(2) Continental shelf waters in proximity to the western boundary of the Gulf Stream; and

(3) Water depths between 20 and 100 m.

In the consideration of winter habitat, the same data sets as those for foraging habitat were evaluated. The same steps were also followed as above, but greater emphasis was placed on the satellite telemetry data to identify seasonal differences in distribution. While there were other high use areas identified, this analysis revealed a consistent high use area during the colder months off the coast of North Carolina that serves as a particularly important area for northern foraging loggerheads.

We identified one specific area of winter critical habitat which extends from Cape Hatteras at the 20 m depth contour straight across 35.27° N. lat. to the 100 m (328 ft) depth contour, south to Cape Fear at the 20 m (66 ft) depth contour (approximately 33.47° N. lat., 77.58° W. long.) extending in a diagonal line to the 100 m (328 ft) depth

contour (approximately 33.2° N. lat., 77.32° W. long.). This southern diagonal line (in lieu of a straight latitudinal line) was chosen to encompass the loggerhead concentration area (observed in satellite telemetry data) and identified habitat features, while excluding the less appropriate habitat (e.g., nearshore waters at 33.2° N. lat.).

The designation of winter critical habitat will conserve loggerhead sea turtles by (1) maintaining the habitat in an area where sea turtles are concentrated during a discrete time period and for a distinct group of loggerheads (e.g., northern foragers); and (2) allowing for variation in seasonal concentrations based on water temperatures and Gulf Stream patterns.

Breeding Habitat

We describe the PBFs of concentrated breeding habitat as sites with high densities of both male and female adult individuals during the breeding season.

PCEs that support this habitat are the following:

(1) High densities of reproductive male and female loggerheads;

(2) Proximity to primary Florida migratory corridor; and

(3) Proximity to Florida nesting grounds.

Concentrated breeding aggregations were identified via a review of the literature and expert opinion. We determined that such areas are essential to the conservation of the species because, as a result of the high density of breeding individuals, the areas likely represent important locations for breeding activities and the propagation of the species. Although there is no distinct boundary for these concentrated breeding sites, we chose to constrain the boundaries of the proposed designation to what we consider the

"core" areas where data indicate adult males congregate to gain access to receptive females.

We identified two units of breeding critical habitat that have been noted in the scientific literature as containing large densities of reproductively active male and female loggerheads in the spring, prior to the nesting season. The first is contained within the Southern Florida migration corridor from the shore out to the 200 m (656 ft) depth contour along the stretch of the corridor between the Marquesas Keys and the Martin County/Palm Beach County line. The second area identified as a concentrated breeding site is located in the nearshore waters just south of Cape Canaveral, Florida.

The designation of critical habitat in breeding areas will help conserve loggerhead sea turtles by maintaining the habitat in a documented high use area for behavior essential to the propagation of the species.

Constricted Migratory Habitat

We describe the PBF of constricted migratory habitat as 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.

PCEs that support this habitat are the following:

(1) Constricted continental shelf area relative to nearby continental shelf waters that concentrate migratory pathways; and

(2) Passage conditions to allow for migration to and from nesting, breeding, and/or foraging areas.

Satellite telemetry information, in-water studies, and available mid-Atlantic fishery bycatch assessments show the majority of neritic stage loggerhead migratory

tracks to be on the continental shelf, with two defined shelf constriction areas off North Carolina and southern Florida (NEFSC and Coonamessett Farm Foundation, unpublished data; McClellan and Read 2007; Hawkes et al. 2007; Mansfield et al. 2009; Murray 2009; TEWG 2009; Hawkes et al. 2011; Warden 2011; Virginia Aquarium 2011a, 2011b, 2012a, 2012b; Arendt et al. 2012b; Arendt et al. 2012c; Ceriani et al. 2012; Griffin et al., 2013; Murray and Orphanides 2013, Foley et al. 2013). They are also associated with near-land contact by the Gulf Stream (Putman et al. 2010) which results in the available neritic habitat being more narrowly confined in these areas. Both constricted corridors were identified as high use (Murray 2009; Warden 2011; Foley et al., 2013; Murray and Orphanides 2013). This information included both neritic stage juveniles and adults from multiple Recovery Units. We identified two specific areas of constricted migratory critical habitat: One off the coast of North Carolina, and the other off the coast of southern Florida.

The constricted migratory corridor off North Carolina serves as a concentrated migratory pathway for loggerheads transiting to neritic foraging areas in the north, and back to winter, foraging, and/or nesting areas in the south. The majority of loggerheads pass through this migratory corridor in the spring (April to June) and fall (September to November), but loggerheads are also present in this area from April through November and, given variations in water temperatures and individual turtle migration patterns, these time periods are variable.

The constricted migratory corridor in Florida stretches from the westernmost edge of the Marquesas Keys (82.17° W. long.) to the tip of Cape Canaveral (28.46° N. lat.). The northern border stretches from shore to the 30 m depth contour. The seaward border

then stretches from the northeastern-most corner to the intersection of the 200 m depth contour and 27° N. lat. parallel. The seaward border then follows the 200 m depth contour to the westernmost edge at the Marquesas Keys. Adult male and female turtles use this corridor to move from foraging sites to the nesting beach or breeding sites from March to May, and then use this corridor to move from the nesting beach or breeding sites to foraging sites from August to October, while juveniles and adults use it to move south during fall migrations to warmer waters (Mansfield 2006; Mansfield et al. 2009; Arendt et al. 2012b; Foley et al. in review).

The designation of critical habitat in the constricted migratory corridors will help conserve loggerhead sea turtles by (1) preserving passage conditions to and from important nesting, breeding, and foraging areas; and (2) protecting the habitat in a narrowly confined area of the continental shelf with documented high use by loggerheads.

Sargassum Habitat

We describe the PBF of loggerhead Sargassum habitat as developmental and foraging habitat for young loggerheads where surface waters form accumulations of floating material, especially Sargassum.

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 where there are concentrated components of the Sargassum community in water temperatures suitable for the optimal growth of Sargassum and inhabitance of loggerheads;

(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; and

(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 m depth.

Witherington et al. (2012) found that the presence of floating Sargassum itself, irrespective of other detectable surface features, defined habitat used by young juvenile sea turtles. However, we found it challenging to identify specific areas where these Sargassum concentrations are likely to form consistently, given its dynamic nature. In the proposed rule, we specifically requested comments on whether to include Sargassum habitat as critical habitat and, if so, whether or not we should include the entire areas, features, and elements described in the ''Description of Physical or Biological Features and Primary Constituent Elements and Identification of Specific Areas'' section. We also requested information on specific areas that frequently encompass convergence zones, surface water downwelling areas and/or other locations where concentrated components of the Sargassum community are likely to be found in the Atlantic Ocean and Gulf of Mexico. Finally, we requested information on times or areas that loggerheads are most likely to co-occur with Sargassum habitat. We received numerous comments on the designation of Sargassum (see Section III, Summary of Comments and Responses). While many comments supported designation of Sargassum habitat, and

some in the form presented in the proposed rule, some expressed concern with the magnitude of the areas discussed. New literature was supplied by one commenter in the form of Mansfield et al., 2014. We considered this reference and also reevaluated oceanographic information and again consulted with Sargassum experts in order to define the Sargassum area as specifically as possible.

Gower and King (2011) evaluated satellite imagery data from 2002-2008 and found high concentrations of Sargassum in the northwest Gulf of Mexico from March to June. Sargassum then spreads eastward into the central and eastern Gulf of Mexico, and then into the Atlantic starting in about July. Sargassum was found in a widespread area of the Atlantic Ocean east of Cape Hatteras in July, spreading further north and east by September. Observations from 2003 to 2007 suggest that Sargassum has a lifespan of approximately 1 year or less, and that the northwest Gulf of Mexico is a major nursery area (Gower and King 2011). High resolution imagery from 2010 suggested that Sargassum was more abundant and widespread in the western Gulf of Mexico compared to the central and eastern Gulf of Mexico, with the latter areas having smaller and more dispersed patches of Sargassum (Hardy et al. 2011). Further, NMFS has collected Sargassum on Gulf of Mexico ichthyoplankton surveys since 2002. While there are various sampling limitations, available data from 2006-2011 fall surveys indicate the highest volume of Sargassum is found in the western Gulf, with very little Sargassum collected in locations on the eastern Gulf of Mexico shelf (G. Zapfe, NMFS, 2013, pers. comm.). Based upon the best available data on the distribution of Sargassum in the Gulf of Mexico, it is apparent that the western Gulf contains the most predictable and abundant Sargassum habitat, and in the eastern Gulf

(western Florida shelf) Sargassum concentrations are lower, more dispersed and transient. The presence or absence of major and persistent circulation features may offer guidance as to where Sargassum drift habitats might persist and where they may be extremely transient. Gower et al. (2006) reported that freely floating pelagic Sargassum may be expected to reach highest concentrations in ocean areas where surface water remains for long periods of time in a slowly rotating gyre, such as the western Gulf of Mexico. Continental shelf waters in the western Gulf of Mexico are relatively narrow and may be influenced by the mesoscale eddies that have travelled westward after separating from the Loop Current (Ohlmann et al. 2001). The broad continental shelf within the eastern Gulf of Mexico lacks such circulation features. The relatively fast moving Loop Current and the Florida Current both serve to distribute Sargassum from the western and central Gulf into the Atlantic.

In the Atlantic, the highest Sargassum production has been found in the Gulf Stream, the lowest on the shelf, and intermediate in the Sargasso Sea (outside of the U.S. EEZ), with Sargassum contributing about 0.5 percent of the total primary production in the area, but nearly 60 percent of the total in the upper 1 m (3 ft) of the water column (Howard and Menzies 1969; Carpenter and Cox 1974; Hanson 1977). Witherington et al. (2012) found that transects on which turtles were observed in the Atlantic were typically found near the western wall of the Gulf Stream and its associated frontal boundaries. Further, Mansfield et al. (2014) satellite tracked 17 neonate loggerheads released into the Gulf Stream off Florida within Sargassum mats. Tracked turtles rarely occupied continental shelf waters and, with one exception, none of the turtles moved westward of the Gulf Stream boundary. Turtles did move east of the Gulf Stream boundary in

association with meso-scale eddies, and some turtles moved east into the Sargasso Sea (Mansfield et al. 2014). Sargassum production varies by season and, in the Atlantic, has the greatest biomass occurring off the southeastern U.S. coast after July (Gower and King 2011). This roughly coincides with peak hatchling production in the southeastern United States (Mansfield and Putman 2013). The physical forces that aggregate Sargassum also aggregate pollutants and debris, making this habitat especially vulnerable.

Based on the above information, we identified two specific areas of Sargassum: The western Gulf of Mexico to the eastern edge of the Loop Current, and the Atlantic Ocean from the Gulf of Mexico along the northern/western boundary of the Gulf Stream and east to the outer edge of the U.S. EEZ.

Specifically, the Gulf of Mexico area has as its northern and western boundaries the 10 m depth contour starting at the mouth of South Pass of the Mississippi River and proceeding west and south to the outer boundary of the U.S. EEZ. The southern boundary of the area is the U.S. EEZ from the 10 m depth contour off of Texas to the Gulf of Mexico-Atlantic border (83° W. long.). The eastern boundary follows the 10 m depth contour from the mouth of South Pass of the Mississippi River at 28.97° N. lat., 89.15° W. long., in a straight line to the northernmost boundary of the Loop Current (28° N. lat., 89° W. long.) and along the eastern edge of the Loop Current roughly following the velocity of 0.101-0.20 m/second as depicted by Love et al. (2013) using the Gulf of Mexico summer mean sea surface currents from 1993-2011, to the Gulf of Mexico-Atlantic border (24.58° N. lat., 83° W. long.). The delineation between the Gulf of Mexico and the Atlantic Ocean starts at 24.58° N. lat., 83° W. long. (near the Dry

Tortugas), and proceeds southward along 83° W. long. to the outer boundary of the EEZ (23.82° N. lat.).

The Atlantic Ocean area has as its outer boundary the U.S. EEZ, starting at the Gulf of Mexico-Atlantic border (23.82° N. lat., 83° W. long.) and proceeding east and north until the EEZ coincides with the Gulf Stream at 37.84° N. lat., 70.59° W. long. The inner boundary of the unit starts at the Gulf of Mexico-Atlantic border (24.58° N. lat., 83° W. long.) to the outer edge of the breeding/migratory critical habitat (LOGG-N-19) at 24.34° N. lat., 82.16° W. long., along the outer edge of the corridor (following the 200 m depth contour) until it coincides with the breeding habitat off of Cape Canaveral (LOGG-N-17) at 27.97° N. lat., 80.14° W. long., and from there roughly following the velocity of 0.401-0.50 m/second (Ocean Conservancy 2012; PMEL 2012) until it coincides with the outer edge of the EEZ at 37.84° N. lat., 70.59° W. long.

The designation of Sargassum critical habitat will help conserve loggerhead sea turtles by protecting essential forage, cover and transport habitat for post-hatchlings and early juveniles.

2. North Pacific Ocean DPS

Within the range of the North Pacific Ocean DPS, neither neritic nor Sargassum habitat are used by loggerheads within U.S. jurisdiction; therefore, no areas were identified for these habitat types. PBFs (and PCEs) were identified for Oceanic Habitat. Although the Central North Pacific and the Eastern Pacific/U.S. West Coast share the same PBFs, they have different accompanying PCEs.

Central North Pacific Ocean

We describe the essential PBFs of loggerhead sea turtle oceanic habitat in the central North Pacific Ocean as waters that support suitable conditions in sufficient quantity and frequency to provide meaningful foraging, development, and/or transiting opportunities to the population in the North Pacific Ocean.

PCEs in the central North Pacific Ocean that support this habitat include the following:

(1) Currents and circulation patterns of the North Pacific Ocean (KEBR, and the southern edge of the KEC characterized by the Transition Zone Chlorophyll Front) where physical and biological oceanography combine to promote high productivity (chlorophyll a = 0.11–0.31 mg/m^3) and sufficient prey quality (energy density ≥ 11.2 kJ/g) of species; and

(2) Appropriate SSTs (14.5° to 20.0° C (58.1° to 68.0° F)), primarily concentrated at the 17° to 18° C (63° to 64° F) isotherm.

Loggerhead foraging and developmental habitat in the North Pacific Ocean occurs between 28° N. and 40° N. lat. (Polovina et al. 2004). Despite historical population decline and nesting trend variability (Kamezaki et al. 2003; Conant et al. 2009; Van Houtan and Halley 2011), loggerheads appear to have remained widely distributed and continue to occupy most, if not all, of their historical range in the central North Pacific Ocean. Accordingly, those oceanic areas within loggerhead range that are infrequently used generally do not provide the significant function that they might for a species with a constricted range. The potential loggerhead habitat occurring in the U.S. EEZ around Hawaii represents between 0.68 percent and 4.2 percent of the total habitat in the central portion of the Pacific Ocean. This habitat represents a small percentage of suitable

habitat, and the variables that make it suitable only occur within the U.S. EEZ around Hawaii a portion of the year in spite of loggerheads using areas north of it throughout the year.

Given the information presented above, we conclude that the habitat within the U.S. EEZ of the central North Pacific Ocean does not provide meaningful foraging, development, and/or transiting opportunities to the North Pacific Ocean DPS, and therefore does not contain PBFs described in the previous section.

Eastern Pacific/ U.S. West Coast

We describe the essential PBFs of loggerhead sea turtle oceanic habitat in the eastern North Pacific Ocean as waters that support suitable conditions in sufficient quantity and frequency to provide meaningful foraging, development, and/or transiting opportunities to the population in the North Pacific Ocean.

PCEs in the eastern North Pacific Ocean that support this habitat include the following:

(1) Sites that support meaningful aggregations of foraging juveniles; and

(2) Sufficient prey densities of neustonic and oceanic organisms.

Loggerheads documented off the U.S. west coast are primarily found south of Point Conception, the northern boundary of the Southern California Bight. Based on interactions with the California drift gillnet fishery and stranding records, recorded observations of loggerheads in the Southern California Bight are rare events, with 16 loggerheads taken in 4,165 observed sets from 1990–2010 (Allen et al. 2013) and 28 loggerheads observed stranded from 1990 to 2012 (average ~1.3 loggerheads/year). In contrast, waters off the Pacific coast of Baja California, and particularly within the shelf

waters of Ulloa Bay, are highly productive with loggerheads documented in the thousands in this area (Pitman 1990; Seminoff et al. 2006).

Due to the rarity of loggerheads and their prey both historically and currently in waters off the U.S. west coast, U.S. waters in the eastern Pacific Ocean do not provide meaningful foraging, development, and/or transiting opportunities to the loggerhead population in the North Pacific Ocean DPS, and therefore do not contain the PBFs described in the previous section.

C. Special Management Considerations

An occupied area may be designated as critical habitat if it contains one or more of the PBFs essential to conservation, and if such features "may require special management considerations or protection" (16 U.S.C. section 1532(5)(a)(i)(II)). Joint NMFS and USFWS regulations (50 CFR 424.02(j)) define special management considerations or protection to mean any methods or procedures useful in protecting PBFs of the environment for the conservation of listed species. We determined that the PBFs identified earlier may require special management considerations due to a number of factors that may affect them. These factors include activities, structures, or other byproducts of human activities. The list below is not necessarily inclusive of all factors.

Major categories of factors, by habitat type, follow. All of these may have an effect on one or more PBF or PCE within the range of the Northwest Atlantic Ocean DPS and may require special management considerations as described below.

1. Northwest Atlantic Ocean DPS

Nearshore Reproductive Habitat

The primary impact to the PBFs and PCEs of the nearshore reproductive habitat (habitat from MHW to 1.6 km offshore of high density nesting beaches and adjacent beaches) for loggerhead sea turtles would be from activities or byproducts of human activities that result in a loss of habitat conditions that allow for a) hatchling egress from the water's edge to open water; and b) nesting female transit back and forth between the open water and the nesting beach during nesting season. The loss of such habitat conditions could come from, but is not limited to, the following:

(1) Offshore structures including, but not limited to, breakwaters, groins, jetties, and artificial reefs, that block or otherwise impede efficient passage of hatchlings or females and/or which concentrate hatchling predators and thus result in greater predation on hatchlings;

(2) Lights on land or in the water, which can disorient hatchlings and nesting females and/or attract predators, particularly lighting that is permanent or present for long durations and has a short wave length (below 540nm);

(3) Oil spills and response activities, that affect habitat conditions for efficient passage of hatchlings or females;

(4) Alternative offshore energy development (turbines or similar structures) that affects habitat conditions for efficient passage of hatchlings or females;

(5) Fishing or aquaculture gear that blocks or impedes efficient passage of hatchlings or females; and

(6) Dredging and disposal activities that affect habitat conditions for efficient passage of hatchlings or females by creating barriers or dramatically altering the slope of the beach approach.

Winter Habitat

The PBF, water temperature PCE, and Gulf Stream boundary PCE of the winter habitat for loggerhead sea turtles could be affected by the following:

(1) Large-scale water temperature changes resulting from global climate change; and

(2) Shifts in the patterns of the Gulf Stream resulting from climate change.

While unlikely to be affected to a significant extent by human activities, the water depth PCE (20-100 m) could potentially be affected by extensive dredging or sediment disposal activities.

Breeding Habitat

The PBF of a concentrated breeding habitat and the associated PCE of high densities of reproductive male and female loggerheads (which facilitates breeding for individuals migrating to that area) could be affected by the following:

(1) Fishing activities that disrupt use of habitat and thus affect densities of reproductive loggerheads;

(2) Dredging and disposal of sediments that affect densities of reproductive loggerheads;

(3) Oil spills and response activities that affect densities of reproductive loggerheads;

(4) Alternative offshore energy development (turbines or similar structures) that affect densities of reproductive loggerheads; and

(5) Climate change, which can affect currents and water temperatures and affect densities of reproductive loggerheads.

Constricted Migratory Habitat

The primary impact to the functionality of the identified corridors as migratory routes for loggerhead sea turtles would be a loss of passage conditions that allow for free and efficient migration along the corridor. The loss of these passage conditions could come from large-scale and or multiple construction projects that result in the placement of substantial structures along the path of the migration, or other similar habitat alterations, requiring large-scale deviations in the migration movements. This impact is expected to be much more likely, and have a greater impact, in the most constricted areas of the migratory routes. Other activities or byproducts of human activities that may, but are less likely to result in an impact to the PCEs include the following:

(1) Oil and gas activities, such as construction and removal of platforms, lighting and noise that alter habitat conditions needed for efficient passage;

(2) Power generation activities such as turbines, wind farms, conversion of wave or tidal energy into power that result in altered habitat conditions needed for efficient passage;

(3) Dredging and disposal of sediments that results in altered habitat conditions needed for efficient passage;

(4) Channel blasting, including use of explosives to remove existing bridge or piling structures or to deepen navigation channels, that results in altered habitat conditions needed for efficient passage;

(5) Marina and dock/pier development that results in altered habitat conditions needed for efficient passage;

(6) Offshore breakwaters that result in altered habitat conditions needed for efficient passage;

(7) Aquaculture structures such as net pens and fixed structures and artificial lighting that result in altered habitat conditions needed for efficient passage;

(8) Fishing activities, particularly those using fixed gear (pots, pound nets), that, when arranged closely together over a wide geographic area, result in altered habitat conditions needed for efficient passage; and

(9) Noise pollution from construction, shipping and/or military activities that results in altered habitat conditions needed for efficient passage.

Sargassum Habitat

The PBF of developmental and foraging habitat in accumulations of floating materials, especially Sargassum, and its associated PCEs of convergence zones and other areas of concentration, adequate concentrations of Sargassum to support abundant prey and cover, and the existence of the community of flora and fauna typically associated with Sargassum habitat could be affected by the following:

(1) Commercial harvest of Sargassum, which would directly decrease the amount of habitat;

(2) Oil and gas exploration, development, and transportation that affects the Sargassum habitat itself and the loggerhead prey items found within this habitat -- this could occur both in the process of normal operations and during blowouts and oil spills, which release toxic hydrocarbons and also require other toxic chemicals for cleanup;

(3) Vessel operations that result in the routine disposal of trash and wastes and/or the accidental release or spillage of cargo, trash or toxic substances, and/or result

in the transfer and introduction of exotic and harmful organisms through ballast water discharge, which may then impact the loggerhead prey species found in Sargassum habitat;

(4) Ocean dumping of anthropogenic debris and toxins that affects the Sargassum habitat itself and the loggerhead prey items found within this habitat; and

(5) Global climate change, which can alter the conditions (such as currents and other oceanographic features, temperature, and levels of ocean acidity) that allow Sargassum habitat and communities to thrive in abundance and locations suitable for loggerhead developmental habitat.

2. North Pacific Ocean DPS

We did not identify any specific areas within the U.S. EEZ in the North Pacific Ocean that contain PBFs essential to the conservation of the North Pacific Ocean DPS; therefore, we did not analyze special management considerations.

D. Unoccupied Areas

Section 3(5)(A)(ii) of the ESA authorizes designation of "specific areas outside the geographical areas occupied by the species at the time it is listed" if those areas are determined to be essential to the conservation of the species. Joint NMFS and USFWS regulations (50 CFR 424.12(e)) emphasize that the agency shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species. We have not identified additional specific areas outside the geographic area occupied by loggerheads at the time of their listing that may be essential for the conservation of the species.

V. Military Lands: Application of ESA Section 4(a)(3)

The ESA precludes the Secretary from designating military lands as critical habitat if those lands are subject to an INRMP under the Sikes Act Improvement Act of 1997 (Sikes Act; 16 U.S.C. 670a) and the Secretary certifies in writing that the plan benefits the listed species (Section 4(a)(3), Pub. L. 108–136).

We have determined that the INRMPs for NAS Key West (Florida) and MCB Camp Lejeune (North Carolina) both confer benefits to the loggerhead sea turtle and enhance its habitat, and therefore we are not designating the waters subject to these INRMPs as critical habitat. Management actions described in the NAS Key West INRMP that benefit loggerhead sea turtles include water quality improvement measures, invasive species control, re-establishment of historic tidal connections for mangrove/saltmarsh and shallow open water (including areas containing seagrasses), completion of a marine benthic survey, installation of turtle-friendly lights, and community outreach and information. Management actions described in the MCB Camp Lejeune INRMP that benefit loggerhead sea turtles include air sweeps before and lookouts during live fire exercises with halting of live fire if a sea turtle is spotted, and avoidance of sea turtles when in boats, keeping a distance of 200 yd (183 m) if feasible.

VI. Exclusions: ESA Section 4(b)(2) Analysis

Section 4(b)(2) of the ESA states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat (16 U.S.C. section 1533(b)(2)). In addition to this mandatory consideration of impacts, this section also gives the

Secretary discretion to exclude any area from critical habitat if the benefits of such exclusion outweigh the benefits of designating such area as part of the critical habitat (the conservation benefits to the species), unless the failure to designate such area as critical habitat will result in the extinction of the species (16 U.S.C. 1533(b)(2)). In making this determination, the statute, as well as the legislative history, are clear that the Secretary has broad discretion regarding whether to proceed to the optional weighing of benefits, which factor(s) to use, how much weight to give to any factor, and whether or not to exclude any area.

A. Benefits of Designation

The benefits of designating the particular areas include the protection afforded under section 7(a)(2) of the ESA, requiring all Federal agencies to ensure that their actions are not likely to destroy or adversely modify critical habitat. This is in addition to the requirement that all Federal agencies ensure that their actions are not likely to jeopardize the continued existence of the species, and to the take prohibitions of section 9 of the ESA. The designation of critical habitat also provides conservation benefits such as improved education and outreach by informing the public about areas and features important to the species conservation, as well as additional protections that may exist or be created under state and local authorities.

We find that, because the PBFs and PCEs of the proposed critical habitat inherently focus on the areas that best support the needs of the species (i.e., those that support meaningful aggregations of the species) and the areas were selected expressly to ensure maximum consistency with the goals in the Recovery Plan, each of the proposed areas is of high conservation value.

B. Economic Benefits of Exclusion

According to the final Economic Analysis, the total estimated present value of the quantified impacts is $950,000 over the next 10 years. On an annualized basis, this is equivalent to impacts of $110,000 (IEc 2013). The quantified economic impacts of designation are the same as the economic benefits of exclusion. Costs for each area can be found in Exhibit ES-1 of the final Economic Analysis (IEc 2013). Impacts are anticipated to be greatest in LOGG-S-1 (37 percent of the total costs or $40,000 annually), the Atlantic Sargassum habitat area, and the Gulf of Mexico Sargassum area (13 percent or $14,000 annually) although these impacts are based on the proposed Sargassum areas, which are appreciably larger (virtually the entire area between the 10 m depth contour and the extent of the U.S. EEZ in the Atlantic Ocean and Gulf of Mexico below 40 N. Lat.) than the areas in the final rule, which do not include areas between the 10 m depth contour and the northern/western edge of the Gulf Stream in the Atlantic, and the eastern Gulf of Mexico. Impacts reflect the very large size of these areas, rather than the potential for significant activities that may adversely affect this habitat type. Because the majority of anticipated impacts are administrative costs associated with consultation on nearshore and in-water construction, dredging, and sediment disposal activities and fisheries and related activities, impacts in the designated areas should be considerably reduced. Impacts to LOGG-N-19, a large area that extends from Martin County/Palm Beach County line to the Marquesas Keys in Monroe County and which includes several nearshore reproductive areas as well as the southern-most constricted migratory corridor and concentrated breeding habitat in Florida, have the next greatest cost at 12 percent of the total or $12,000 annually. These costs are due primarily to the number of

consultations anticipated for in-water construction, dredging, and sediment disposal activities, but also to the size of the area relative to most of the other areas. The final Economic Analysis describes in more detail the types of activities that may be affected by the designation and the estimated relative level of economic impacts (IEc 2014).

The highest estimated annual economic cost associated with the designation of loggerhead critical habitat is less than $40,000 for a very large area, LOGG-S-1, and the estimated cost associated with the designation of most areas as critical habitat is below $1,000. Because these numbers are so low, all areas are considered to have a "low" economic impact. Typically, to be considered "high," an economic value would need to be above several million dollars (sometimes tens of millions), and "medium" may fall between several hundred thousand and millions of dollars.

C. Exclusions of Particular Areas Based on Economic Impacts

Because all particular areas identified for loggerheads have a high conservation value and a low economic impact, no areas are being excluded based on economic impacts. This has not changed from the proposed rule. Because no areas are being excluded, we did not need to further consider whether exclusions would result in the extinction of the Northwest Atlantic Ocean DPS of the loggerhead sea turtle.

D. Exclusions Based on Impacts to National Security

The Secretary must consider possible impacts to national security when determining critical habitat (16 U.S.C. 1533(b)(2)). We shared the draft Biological Report with the Departments of the Navy (including Marine Corps), Army, Air Force and the Department of Homeland Security. The Navy, Air Force, and Department of Homeland Security provided comments (see proposed rule for further discussion of the

comments). Although there is overlap between areas proposed for critical habitat and their activities, we do not believe that these activities, as currently conducted, are the types of activities that may affect or adversely modify critical habitat proposed for the loggerhead sea turtle or its PBF/PCEs. Therefore, we conclude that Navy, Air Force and DHS activities are not likely to be affected by this proposed designation, and the designation would not affect national security.

No additional national security concerns have been raised at this time; therefore, we have not excluded any areas due to national security concerns.

E. Exclusions for Tribal Lands

No Tribal lands occur in the areas being recommended for designation, and no Tribal activities are anticipated to be affected by designation. Therefore no exclusions are recommended for Indian Lands.

VII. Final Determinations and Critical Habitat Designation

We conclude that specific areas meet the definition of critical habitat for the Northwest Atlantic Ocean DPS, that a critical habitat designation is prudent, and that critical habitat is determinable. We found 38 specific marine areas for critical habitat designation occupied within the range of the Northwest Atlantic Ocean DPS. These areas contain one or a combination of nearshore reproductive habitat, winter habitat, breeding habitat, constricted migratory corridors, and Sargassum habitat. These areas are described in detail in the proposed rule (78 FR 43006, July 18, 2013).

We conclude that no specific areas exist within U.S. jurisdiction that meet the definition of critical habitat for the North Pacific Ocean DPS. We did not identify any critical habitat within the U.S. EEZ in the Pacific Ocean for the North Pacific Ocean DPS

because occupied habitat within the U.S. EEZ did not support suitable conditions in sufficient quantity and frequency to provide meaningful foraging, development, and/or transiting opportunities to the population in the North Pacific Ocean.

VIII. Effects of Critical Habitat Designation

Section 7(a)(2) of the ESA requires Federal agencies to insure that any action authorized, funded, or carried out by the agency (agency action) does not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify designated critical habitat (16 U.S.C. 1536(a)(2)). When a species is listed or critical habitat is designated, Federal agencies must consult with NMFS on any agency actions they authorize, fund, or carry out that may affect the species or its critical habitat (16 U.S.C. 1536(a)(2)). During the consultation, we evaluate the agency action to determine whether the action may adversely affect listed species or critical habitat and issue our findings in a biological opinion or, if appropriate, in a letter concurring with a finding of the action agency that their action is not likely to adversely affect the species. If we conclude in the biological opinion that the action would likely result in the destruction or adverse modification of critical habitat, we would also recommend any reasonable and prudent alternatives to the action (16 U.S.C. 1536(b)(4)(2)). Reasonable and prudent alternatives (defined in 50 CFR 402.02) are alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid the destruction or adverse modification of critical habitat. Regulations (50 CFR 402.16) require Federal agencies that have retained discretionary involvement or

control over an action, or where such discretionary involvement or control is authorized by law, to reinitiate consultation on previously reviewed actions in instances where (1) critical habitat is subsequently designated, or (2) new information or changes to the action may result in effects to critical habitat not previously considered in the biological opinion. Consequently, some Federal agencies may request reinitiation of a consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Activities subject to the ESA section 7 consultation process include Federal activities and non-Federal activities requiring a permit from a Federal agency (e.g., a Clean Water Act, Section 404 dredge or fill permit from the USACE) or some other Federal action, including funding (e.g., Federal Highway Administration funding for transportation projects). ESA section 7 consultation would not be required for Federal actions that do not affect listed species or critical habitat and for non-Federal activities or activities on non-federal and private lands that are not federally funded, authorized, or carried out.

IX. Activities that May be Affected

ESA section 4(b)(8) requires in any final rule to designate critical habitat an evaluation and brief description, to the maximum extent practicable, of those activities that may adversely modify such habitat or that may be affected by the designation. A wide variety of activities may affect the critical habitat and may be subject to the ESA section 7 consultation process when carried out, funded, or authorized by a Federal agency. These include (1) nearshore and in-water construction, dredging, and sediment

disposal, such as construction and maintenance of offshore structures such as breakwaters, groins, jetties, and artificial reefs; construction and maintenance of transportation projects (e.g., bridges) and utility projects; dredging and sediment disposal; channel blasting; (2) fisheries management, such as Federal commercial fisheries and related activities; (3) oil and gas exploration and development**,** such as decommissioning of old oil and gas platforms, construction of nearshore oil and gas platforms, oil and gas activity transport in the nearshore environment; (4) renewable energy projects**,** such as ocean thermal energy, wave energy, and offshore wind energy; (5) some military activities, such as in-water training and research; and (6) aquaculture, such as marine species propagation.

For ongoing activities, we recognize that designation of critical habitat may trigger reinitiation of past consultations. Although we cannot predetermine the outcome of section 7 consultations, we do not anticipate at this time that the outcome of reinitated consultation would likely require additional conservation measures, because effects to habitat would likely have been assessed in the original consultation. We commit to working closely with other Federal agencies to implement these reinitiated consultations in an efficient and streamlined manner that, as much as possible and consistent with our statutory and regulatory obligations, minimizes the staff and resource burden and recognizes existing habitat conservation measures from previously completed ESA consultations. Further, we will continue to work with other agencies to refine and revise cost estimates associated with such consultations.

X. Information Quality Act and Peer Review

The data and analyses supporting this designation have undergone a pre-dissemination review and have been determined to be in compliance with applicable information quality guidelines implementing the Information Quality Act (IQA) (Section 515 of Public Law 106–554). In December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review pursuant to the IQA. The Bulletin established minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation with regard to certain types of information disseminated by the Federal Government. The peer review requirements of the OMB Bulletin apply to influential or highly influential scientific information disseminated on or after June 16, 2005. To satisfy our requirements under the OMB Bulletin, we obtained independent peer review of the Biological and Economic Reports that support the designation of critical habitat for the loggerhead sea turtle and incorporated the peer review comments prior to the proposed rule and within this rulemaking.

XI. Classification

A. Regulatory Planning and Review

The Office of Management and Budget (OMB) has determined that this final rule is significant under Executive Order 12866. A final Economic Analysis and 4(b)(2) analysis as set forth herein have been prepared to support the exclusion process under section 4(b)(2) of the ESA. To review these documents see ADDRESSES section above.

B. National Environmental Policy Act

We have determined that an environmental analysis as provided for under the National Environmental Policy Act of 1969 for critical habitat designations made

pursuant to the ESA is not required. See Douglas County v. Babbitt, 48 F.3d 1495 (9th Cir. 1995), cert. denied, 116 S.Ct. 698 (1996).

C. Regulatory Flexibility Act

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency publishes a notice of rulemaking for any final rule (other than one regarding the listing of a species under the Endangered Species Act), it must prepare and make available for public comment a regulatory flexibility analysis describing the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). We prepared a final regulatory flexibility analysis (FRFA) pursuant to section 603 of the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 et seq.; IEc, 2014), which is an appendix to the final Economic Analysis. The FRFA incorporates the Initial Regulatory Flexibility Analysis (IRFA), which was part of the draft economic analysis that accompanied the proposed rule to designate critical habitat. This document is available upon request (*see* ADDRESSES section above). The results are summarized below.

A statement of the need for and objectives of this final rule is provided earlier in the preamble and is not repeated here. This final rule will not impose any recordkeeping or reporting requirements.

Three types of small entities identified in the analysis are (1) small business, (2) small governmental jurisdiction, and (3) small organization. The regulatory mechanism through which critical habitat protections are enforced is section 7 of the ESA, which directly regulates only those activities carried out, funded, or permitted by a Federal

agency. By definition, Federal agencies are not considered small entities, although the activities they may fund or permit may be proposed or carried out by small entities. This analysis considers the extent to which this designation could potentially affect small entities, regardless of whether these entities would be directly regulated by NMFS through the final rule or by a delegation of impact from the directly regulated entity.

The small entities that may bear the incremental impacts of this rulemaking are quantified in chapters 3 through 6 of the final Economic Analysis on four categories of economic activity potentially requiring modification to avoid destruction or adverse modification of loggerhead sea turtle critical habitat. Small entities also may participate in ESA section 7 consultation as an applicant or may be affected by a consultation if they intend to undertake an activity that requires a permit, license, or funding from the Federal Government. It is therefore possible that the small entities may spend additional time considering critical habitat during section 7 consultation for the loggerhead sea turtle. Potentially affected activities include nearshore and in-water construction, dredging and disposal, fisheries, oil and gas exploration and development, and alternative energy projects.

Estimated impacts to small entities are summarized by industry in Exhibit A-1 Exhibit A-2 describes potentially affected small businesses by NAICS code, highlighting the relevant small business thresholds. Although businesses affected indirectly are considered, this analysis considers only those entities for which impacts would not be measurably diluted, i.e., it focuses on those entities that may bear some additional costs associated with participation in section 7 consultation.

Based on the number of past consultations and information about potential future actions likely to take place within proposed critical habitat areas, this analysis forecasts the number of additional consultations that may take place as a result of critical habitat (see Chapters 3 through 6 of the draft Economic Analysis). Based on this forecast, annual incremental consultation costs that may be borne by small entities are forecast at $18,000 (discounted at seven percent).

Ideally this analysis would directly identify the number of small entities which may engage in activities that overlap with the proposed designation; however, while we track the Federal agencies involved in the consultation process, we do not track the identity of past permit recipients or the particulars that would allow us to determine whether the recipients were small entities. Nor do we track how often Federal agencies have hired small entities to complete various actions associated with these consultations. In the absence of this information, this analysis utilizes Dun and Bradstreet databases to determine the number of small businesses operating within the NAICS codes identified in Exhibit A-2. Exhibit A-3 presents the potentially affected small counties.

The final rule does not directly mandate "reporting" or "record keeping" within the meaning of the Paperwork Reduction Act, and does not impose record keeping or reporting requirements on small entities. A critical habitat designation requires Federal agencies to initiate a section 7 consultation to insure their actions do not destroy or adversely modify critical habitat. During formal section 7 consultation under the ESA, NMFS, the action agency (Federal agency), and a third party participant applying for Federal funding or permitting may communicate in an effort to minimize potential adverse impacts to the habitat and/or the essential features. Communication may include

written letters, phone calls, and/or meetings. Project variables such as the type of consultation, the location, affected essential features, and activity of concern, may in turn dictate the complexity of these interactions. Third party costs may include administrative work, such as cost of time and materials to prepare for letters, calls, or meetings. The cost of analyses related to the activity and associated reports may be included in these administrative costs. In addition, following the section 7 consultation process, entities may be required to monitor progress during the activity to ensure that impacts to the habitat and features have been minimized.

A FRFA must identify any duplicative, overlapping, and conflicting Federal rules. The protections afforded to threatened and endangered species and their habitat are described in section 7, 9, and 10 of the ESA. A final determination to designate critical habitat requires Federal agencies to consult, pursuant to section 7 of the ESA, with NMFS on any activities the Federal agency funds, authorizes, or carries out, including permitting, approving, or funding non-Federal activities (e.g., a Clean Water Act, Section 404 dredge or fill permit from USACE). The requirement to consult is to ensure that any Federal action authorized, funded, or carried out will not likely jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat. The incremental impacts forecast in this report and contemplated in this analysis are expected to result from the critical habitat designation and not other Federal regulations.

In accordance with the requirements of the RFA (as amended by SBREFA, 1996) this analysis considers alternatives to the proposed critical habitat designation for the loggerhead sea turtle. The alternative of not designating critical habitat for the

loggerhead sea turtle was considered and rejected because such an approach does not meet the legal requirements of the ESA.

D. Coastal Zone Management Act

Under section 307(c)(1)(A) of the Coastal Zone Management Act (CZMA) (16 USC 1456(c)(1)(A)) and its implementing regulations, each Federal activity within or outside the coastal zone that has reasonably foreseeable effects on any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved state coastal zone management programs. We initially determined that the proposed designation of critical habitat is consistent to the maximum extent practicable with the enforceable policies of approved Coastal Zone Management Programs of New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas, and submitted this to the responsible agencies in the aforementioned states for review. Upon further review of the proposed designation and its supporting analysis, we have determined that any effects of the designation on coastal uses and resources are not reasonably foreseeable at this time. This designation does not restrict any coastal uses, affect land ownership, or establish a refuge or other conservation area; rather, the designation only affects the ESA section 7 consultation process. Through the consultation process, we will receive information on proposed Federal actions and their effects on listed species and the designated critical habitat upon which we base our biological opinion. It will then be up to the Federal action agencies to decide how to comply with the ESA in light of our opinion, as well as to ensure that their actions comply with the CZMA's Federal consistency requirement. At this time, we do not

anticipate that this designation is likely to result in any additional management measures by other Federal agencies.

E. Federalism

Executive Order 13132 requires agencies to take into account any Federalism impacts of regulations under development. It includes specific consultation directives for situations in which a regulation will preempt state law, or impose substantial direct compliance costs on state and local governments (unless required by statute). We have determined that the final rule to designate critical habitat for the loggerhead sea turtle under the ESA does not have Federalism implications. The designation of critical habitat directly affects only the responsibilities of Federal agencies. As a result, the rule does not have substantial direct effects on the States, on the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in the Order. State or local governments may be indirectly affected by the proposed revision if they require Federal funds or formal approval or authorization from a Federal agency as a prerequisite to conducting an action. In these cases, the State or local government agency may participate in the section 7 consultation as a third party. One of the key conclusions of the incremental analysis of economic impacts is that we do not expect critical habitat designation to generate additional requests for project modification in any of the critical habitat units. Incremental impacts of the designation will likely be limited to minor additional administrative costs to NMFS, Federal agencies, and third parties when considering critical habitat as part of the forecast section 7 consultations. Therefore, the designation

of critical habitat is also not expected to have substantial indirect impacts on State or local governments.

F. Paperwork Reduction Act

This final rule does not contain a collection-of-information requirement for purposes of the Paperwork Reduction Act.

G. Unfunded Mandates Reform Act

In accordance with the Unfunded Mandates Reform Act, we make the following findings: The designation of critical habitat does not impose an ‘‘enforceable duty’’ on state, local, tribal governments, or the private sector and therefore does not qualify as a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an ‘‘enforceable duty’’ upon non-federal governments or the private sector, and includes both ‘‘Federal intergovernmental mandates’’ and ‘‘Federal private sector mandates.’’

Under the ESA, the only direct regulatory effect of this final rule is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, permits, or otherwise require approval or authorization from a Federal agency for an action may be indirectly affected by the designation of critical habitat, the legally binding duty to avoid the destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly affected because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply.

We do not believe that this rule will significantly or uniquely affect small governments because it is not likely to produce a Federal mandate of $100 million or greater in any year; that is, it is not a ”significant regulatory action” under the Unfunded Mandates Reform Act. In addition, the designation of critical habitat imposes no obligations on local, state or tribal governments. Therefore, a Small Government Agency Plan is not required.

H. Takings

Under Executive Order 12630, Federal agencies must consider the effects of their actions on constitutionally protected private property rights and avoid unnecessary takings of property. A taking of property includes actions that result in physical invasion or occupancy of private property, and regulations imposed on private property that substantially affect its value or use.

In accordance with Executive Order 12630, the critical habitat designation does not pose significant takings implications. A takings implication assessment is not required. This final designation affects only Federal agency actions (i.e. those actions authorized, funded, or carried out by Federal agencies). Therefore, the critical habitat designation does not affect landowner actions that do not require Federal funding or permits.

This critical habitat designation would not increase or decrease the current restrictions on private property concerning take of loggerhead sea turtles, nor do we expect the designation to impose substantial additional burdens on land use or substantially affect property values. Additionally, the final critical habitat designation does not preclude the development of Conservation Plans and issuance of incidental take

permits for non-Federal actions. Owners of property included or used within the final critical habitat designation would continue to have the opportunity to use their property in ways consistent with the survival of listed loggerhead sea turtles.

I. Government to Government Relationships with Tribes

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, outlines the responsibilities of the Federal Government in matters affecting tribal interests. If we issue a regulation with tribal implications (defined as having a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes), we must consult with those governments or the Federal Government must provide funds necessary to pay direct compliance costs incurred by tribal governments. The critical habitat designation does not have tribal implications. The final critical habitat designation does not include any tribal lands and does not affect tribal trust resources or the exercise of tribal rights.

J. Energy Effects

Executive Order 13211 requires agencies to prepare a Statement of Energy Effects when undertaking a ‘‘significant energy action.’’ According to Executive Order 13211, ‘‘significant energy action’’ means any action by an agency that is expected to lead to the promulgation of a final rule or regulation that is a significant regulatory action under Executive Order 12866 and is likely to have a significant adverse effect on the supply, distribution, or use of energy. We have considered the potential impacts of this action on the supply, distribution, or use of energy (see final Economic Analysis). Oil and gas exploration and alternative energy projects may affect the essential features of critical habitat for the loggerhead sea turtle. Due to the extensive requirements of oil and gas development and renewable energy projects to consider environmental impacts, including impacts on marine life, even absent critical habitat designation for the loggerhead sea turtle, we anticipate it is unlikely that critical habitat designation will change conservation efforts recommended during section 7 consultation for these projects. Consequently, it is unlikely the identified activities and projects will be affected by the designation beyond the quantified administrative impacts. Therefore, the designation is not expected to impact the level of energy production. It is unlikely that any impacts to the industry that remain unquantified will result in a change in production above the one billion kilowatt-hour threshold identified in the Executive Order. Therefore, it is unlikely that the energy industry will experience “a significant adverse effect” as a result of the critical habitat designation for the loggerhead sea turtle.

XII. References Cited

A complete list of all references cited in this rule making can be found on our web site at http://www.nmfs.noaa.gov/pr/species/turtles/loggerhead.htm and is available upon request from the NMFS (see ADDRESSES).

List of Subjects in 50 CFR Part 226

Endangered and threatened species.

Dated: July 1, 2014.

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Eileen Sobeck

Assistant Administrator,

National Marine Fisheries Service

For the reasons set out in the preamble, 50 CFR part 226 is amended as set forth below:

PART 226-DESIGNATED CRITICAL HABITAT

1. The authority citation of part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

2. Add § 226.223 to read as follows:

§ 226.223 Critical habitat for the Northwest Atlantic Ocean Distinct Population Segment of the loggerhead sea turtle (Caretta caretta).

Critical habitat is designated for the Northwest Atlantic Ocean Distinct Population Segment of the loggerhead sea turtle (Caretta caretta) as described in this section. The textual descriptions of critical habitat in this section are the definitive source for determining the critical habitat boundaries. For nearshore reproductive areas, the areas extend directly from the mean high water (MHW) line datum at each end of the area seaward 1.6 km. Where beaches are within 1.6 km of each other, nearshore areas are connected, either along the shoreline (MHW line) or by delineating on GIS a straight line

from the end of one beach to the beginning of another (either from island to island, or across an inlet or the mouth of an estuary). Although generally following these rules, the exact delineation of each area was determined individually because each was unique. The overview maps are provided for general guidance only and not as a definitive source for determining critical habitat boundaries.

(a) Critical habitat boundaries. Critical habitat is designated to include the following areas:

(1) LOGG-N-1 – North Carolina Constricted Migratory Corridor and Northern Portion of the North Carolina Winter Concentration Area. This unit contains constricted migratory and winter habitat. The unit includes the North Carolina constricted migratory corridor and the overlapping northern half of the North Carolina winter concentration area. The constricted migratory corridor off North Carolina consists of waters between 36° N. lat. and Cape Lookout (approximately 34.58° N. lat.) from the edge of the Outer Banks, North Carolina, barrier islands to the 200 m (656 ft) depth contour (continental shelf). The constricted migratory corridor overlaps with the northern portion of winter concentration area off North Carolina. The western and eastern boundaries of winter habitat are the 20 m and 100 m (65.6 and 328 ft) depth contours, respectively. The northern boundary of winter habitat starts at Cape Hatteras (35° 16' N lat.) in a straight latitudinal line between 20 and 100 m (65.6-328 ft) depth contours and ends at Cape Lookout (approximately 34.58° N. lat.).

(2) LOGG-N-2 – Southern Portion of the North Carolina Winter Concentration Area. This unit contains winter habitat only. The boundaries include waters between the 20 and 100 m (65.6 and 328 ft) depth contours between Cape

Lookout to Cape Fear. The eastern and western boundaries of winter habitat are the 20 m and 100 m (65.6 and 328 ft) depth contours, respectively. The northern boundary is Cape Lookout (approximately 34.58° N). The southern boundary is a 37.5 km (23.25 mile) line that extends from the 20 m (65.6 ft) depth contour at approximately 33.47° N, 77.58° W (off Cape Fear) to the 100 m (328 ft) depth contour at approximately 33.2° N, 77.32° W.

(3) LOGG-N-3 – Bogue Banks and Bear Island, Carteret and Onslow Counties, North Carolina. This unit contains nearshore reproductive habitat only. The unit consists of nearshore area from Beaufort Inlet to Bear Inlet (crossing Bogue Inlet) from the MHW line seaward 1.6 km.

(4) LOGG-N-4 –Topsail Island and Lea-Huttaf Island, Onslow and Pender Counties, North Carolina. This unit contains nearshore reproductive habitat only. The unit consists of nearshore area from New River Inlet to Rich Inlet (crossing New Topsail Inlet) from the MHW line seaward 1.6 km.

(5) LOGG-N-5 – Pleasure Island, Bald Head Island, Oak Island, and Holden Beach, New Hanover and Brunswick Counties, North Carolina. This unit contains nearshore reproductive habitat only. The unit consists of nearshore area from Carolina Beach Inlet around Cape Fear to Shallotte Inlet (crossing the mouths of the Cape Fear River and Lockwoods Folly Inlet), from the MHW line seaward 1.6 km.

(6) LOGG-N-6 – North, Sand, South and Cedar Islands, Georgetown County, South Carolina; Murphy, Cape, Lighthouse Islands and Racoon Key, Charleston County, South Carolina. This unit contains nearshore reproductive habitat only. The unit consists of nearshore area from North Inlet to Five Fathom Creek Inlet (crossing Winyah Bay,

North Santee Inlet, South Santee Inlet, Cape Romain Inlet, and Key Inlet) from the MHW line seaward 1.6 km.

(7) LOGG-N-7 – Folly, Kiawah, Seabrook, Botany Bay Islands, Botany Bay Plantation, Interlude Beach, and Edingsville Beach, Charleston County, South Carolina; Edisto Beach State Park, Edisto Beach, and Pine and Otter Islands, Colleton County, South Carolina. This unit contains nearshore reproductive habitat only. The unit consists of nearshore area from Lighthouse Inlet to Saint Helena Sound (crossing Folly River, Stono, Captain Sam's, North Edisto, Frampton, Jeremy, South Edisto and Fish Creek Inlets) from the MHW line seaward 1.6 km.

(8) LOGG-N-8 – Harbor Island, Beaufort County, South Carolina. This unit contains nearshore reproductive habitat only. The unit consists of nearshore area from Harbor Inlet to Johnson Inlet from the MHW line seaward 1.6 km.

(9) LOGG-N-9– Little Capers, St. Phillips, and Bay Point Islands, Beaufort County, South Carolina. This unit contains nearshore reproductive habitat only. The unit consists of nearshore area from Pritchards Inlet to Port Royal Sound (crossing Trenchards Inlet and Morse Island Creek Inlet East) from the MHW line seaward 1.6 km.

(10) LOGG-N-10 – Little Tybee Island, Chatham County, Georgia: This unit contains nearshore reproductive habitat only. The boundaries of this unit are from Tybee Creek Inlet to Wassaw Sound from the MHW line seaward 1.6 km.

(11) LOGG-N-11 – Wassaw Island, Chatham County, Georgia: This unit contains nearshore reproductive habitat only. The boundaries of the unit are from Wassaw Sound to Ossabaw Sound from the MHW line seaward 1.6 km.

(12) LOGG-N-12 – Ossabaw Island, Chatham County, Georgia; St. Catherines Island, Liberty County, Georgia; Blackbeard and Sapelo Islands, McIntosh County, Georgia: This unit contains nearshore reproductive habitat only. The boundaries of this unit are nearshore areas from the Ogeechee River to Deboy Sound (crossing St. Catherines Sound, McQueen Inlet, Sapelo Sound, and Cabretta Inlet), extending from the MHW line and seaward 1.6 km.

(13) LOGG-N-13 – Little Cumberland Island and Cumberland Island, Camden County, Georgia: This unit contains nearshore reproductive habitat only. The boundaries of this unit are nearshore areas from St. Andrew Sound to the St. Marys River (crossing Christmas Creek) from the MHW line seaward 1.6 km.

(14) LOGG-N-14 – Southern Boundary of Kathryn Abbey Hanna Park to Mantanzas Inlet, Duval and St. Johns Counties, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from the south boundary of Kathryn Abbey Hanna Park to Matanzas Inlet (crossing St. Augustine Inlet) from the MHW line seaward 1.6 km.

(15) LOGG-N-15 – Northern Boundary of River to Sea Preserve at Marineland to Granada Blvd, Flagler and Volusia Counties, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from the north boundary of River to Sea Preserve at Marineland to Granada Boulevard in Ormond Beach from the MHW line seaward 1.6 km.

(16) LOGG-N-16 – Canaveral National Seashore to 28.70 ° N, 80.66 ° W near Titusville, Volusia and Brevard Counties, Florida: This unit contains nearshore reproductive habitat only. Boundaries of the unit are nearshore areas from the north

boundary of Canaveral National Seashore to 28.70 ° N, 80.66 ° W near Titusville (at the start of the Titusville--Floridana Beach concentrated breeding area) from the MHW line seaward 1.6 km.

(17) LOGG-N-17 – Titusville to Floridana Beach Concentrated Breeding Area, Northern Portion of the Florida Constricted Migratory Corridor, Nearshore Reproductive Habitat from 28.70 ° N, 80.66 ° W near Titusville to Cape Canaveral Air Force Station; and Nearshore Reproductive Habitat from Patrick Airforce Base and Central Brevard Beaches, Brevard County, Florida: This unit includes overlapping areas of nearshore reproductive habitat, constricted migratory habitat, breeding habitat, and Sargassum habitat. The concentrated breeding habitat area is from the MHW line on shore at 28.70 ° N, 80.66 ° W near Titusville to depths less than 60 m and extending south to Floridana Beach. This overlaps with waters in the northern portion of the Florida constricted migratory corridor, which begins at the tip of Cape Canaveral Air Force Station (28.46° N. lat.) and ends at Floridana beach, including waters from the MHW line on shore to the 30 m depth contour. Additionally, the above two habitat areas overlap with two nearshore reproductive habitat areas. The first begins near Titusville at 28.70 ° N, 80.66 ° W to the south boundary of the Cape Canaveral Air Force Station/Canaveral Barge Canal Inlet from the MHW line seaward 1.6 km. The second begins at Patrick Air Force Base, Brevard County, through the central Brevard Beaches to Floridana Beach from the MHW line seaward 1.6 km.

(18) LOGG-N-18 – Florida Constricted Migratory Corridor from Floridana Beach to Martin County/Palm Beach County Line; Nearshore Reproductive Habitat from Floridana Beach to the south end of Indian River Shores; Nearshore Reproductive Habitat

from Fort Pierce inlet to Martin County/Palm Beach County Line, Brevard, Indian River and Martin Counties, Florida – This unit contains nearshore reproductive habitat and constricted migratory habitat. The unit contains a portion of the Florida constricted migratory corridor, which is located in the nearshore waters from the MHW line to the 30 m depth contour off Floridana Beach to the Martin County/Palm Beach County line. This overlaps with two nearshore reproductive habitat areas. The first nearshore reproductive area includes nearshore areas from Floridana Beach to the south end of Indian River Shores (crossing Sebastian Inlet) from the MHW line seaward1.6 km. The second nearshore reproductive habitat area includes nearshore areas from Fort Pierce inlet to Martin County/Palm Beach County line (crossing St. Lucie Inlet) from the MHW line seaward 1.6 km.

(19) LOGG-N-19 - Southern Florida Constricted Migratory Corridor; Southern Florida Concentrated Breeding Area; and Six Nearshore Reproductive Areas: Martin County/Palm Beach County line to Hillsboro Inlet, Palm Beach and Broward Counties, Florida; Long Key, Bahia Honda Key, Woman Key, Boca Grande Key, and Marquesas Keys, Monroe County, Florida – This unit contains nearshore reproductive habitat, constricted migratory habitat, and breeding habitat. The unit contains the southern Florida constricted migratory corridor habitat, overlapping southern Florida breeding habitat, and overlapping nearshore reproductive habitat. The southern portion of the Florida concentrated breeding area and the southern Florida constricted migratory corridor are both located in the nearshore waters starting at the Martin County/Palm Beach County line to the westernmost edge of the Marquesas Keys (82.17° W. long.), with the exception of the waters under the jurisdiction of NAS Key West. The seaward

border then follows the 200 m depth contour to the westernmost edge at the Marquesas Keys. The overlapping nearshore reproductive habitat includes nearshore waters starting at the Martin County/Palm Beach County line to Hillsboro Inlet (crossing Jupiter, Lake Worth, Boyton, and Boca Raton Inlets) from the MHW line seaward 1.6 km; Long Key, which is bordered on the east by the Atlantic Ocean, on the west by Florida Bay, and on the north and south by natural channels between Keys (Fiesta Key to the north and Conch Key to the south), and has boundaries following the borders of the island from the MHW line seaward to 1.6 km; Bahia Honda Key, from the MHW line seaward 1.6 km; 4) Woman Key, from the MHW line and seaward to 1.6 km; 5) Boca Grande Key, from the MHW line seaward to 1.6 km; 6) the Marquesas Keys unit boundary, including nearshore areas from the MHW line seaward to 1.6 km from four islands where loggerhead sea turtle nesting has been documented within the Marquesas Keys: Marquesas Key, Unnamed Key 1, Unnamed Key 2, and Unnamed Key 3.

(20) LOGG-N-20 – Dry Tortugas, Monroe County, Florida: This unit contains nearshore reproductive habitat only. The unit boundary includes nearshore areas from the MHW line and seaward to 1.6 km (1.0 mile) from six islands where loggerhead sea turtle nesting has been documented within the Dry Tortugas. From west to east, these six islands are: Loggerhead Key, Garden Key, Bush Key, Long Key, Hospital Key, and East Key.

(21) LOGG-N-21 – Cape Sable, Monroe County, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from the MHW line and seaward to 1.6 km from the north boundary of Cape Sable at 25.25 ° N, 81.17 ° W to the south boundary of Cape Sable at 25.12 ° N, 81.07 ° W.

(22) LOGG-N-22 – Graveyard Creek to Shark Point, Monroe County, Florida: This unit contains nearshore reproductive habitat only. The boundaries of this unit are nearshore areas from Shark Point (25.39 ° N, 81.15 ° W) to Graveyard Creek Inlet from the MHW line seaward 1.6 km.

(23) LOGG-N-23 – Highland Beach, Monroe County, Florida: This unit contains nearshore reproductive habitat only. The boundaries of this unit are from First Bay to Rogers River Inlet from the MHW line seaward 1.6 km.

(24) LOGG-N-24 – Ten Thousand Islands North, Collier County, Florida: This unit contains nearshore reproductive habitat only. The unit boundary includes nearshore areas from the MHW line seaward 1.6 km of nine keys where loggerhead sea turtle nesting has been documented within the northern part of the Ten Thousand Islands in Collier County in both the Ten Thousand Islands NWR and the Rookery Bay NERR.

(25) LOGG-N-25 – Cape Romano, Collier County, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from Caxambas Pass to Gullivan Bay from the MHW line seaward 1.6 km.

(26) LOGG-N-26 – Keewaydin Island and Sea Oat Island, Collier County, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from Gordon Pass to Big Marco Pass from the MHW line seaward 1.6 km.

(27) LOGG-N-27 – Little Hickory Island to Doctors Pass, Lee and Collier Counties, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from Little Hickory Island to Doctors Pass (crossing Wiggins Pass and Clam Pass) from the MHW line seaward 1.6 km.

(28) LOGG-N-28 – Captiva Island and Sanibel Island West, Lee County, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from the north end of Captiva/Captiva Island Golf Club (starting at Redfish Pass and crossing Blind Pass) and along Sanibel Island West to Tarpon Bay Road, from the MHW line seaward 1.6 km.

(29) LOGG-N-29 – Siesta and Casey Keys, Sarasota County; Venice Beaches and Manasota Key, Sarasota and Charlotte Counties; Knight, Don Pedro, and Little Gasparilla Islands, Charlotte County; Gasparilla Island, Charlotte and Lee Counties; Cayo Costa, Lee County, Florida: This unit contains nearshore reproductive habitat only. The boundaries of this unit are nearshore areas from Big Sarasota Pass to Catliva Pass (crossing Venice Inlet, Stump Pass, Gasparilla Pass, and Boca Grande Pass), from the MHW line seaward 1.6 km.

(30) LOGG-N-30 – Longboat Key, Manatee and Sarasota Counties, Florida: This unit contains nearshore reproductive habitat only. The boundaries of this unit are the north point of Longboat Key at Longboat Pass to New Pass, from the MHW line seaward 1.6 km.

(31) LOGG-N-31 – St. Joseph Peninsula, Cape San Blas, St. Vincent, St. George and Dog Islands, Gulf and Franklin Counties, Florida: This unit contains nearshore reproductive habitat only. The boundaries of this unit are from St. Joseph Bay to St. George Sound (crossing Indian, West, and East Passes) from the MHW line seaward 1.6 km.

(32) LOGG-N-32 – Mexico Beach and St. Joe Beach, Bay and Gulf Counties, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the

unit are from the eastern boundary of Tyndall Air Force Base to Gulf County Canal in St. Joseph Bay from the MHW line seaward 1.6 km.

(33) LOGG-N-33 – Gulf State Park to FL/AL state line, Baldwin County, Alabama; FL/AL state line to Pensacola Pass, Escambia County, Florida: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from the west boundary of Gulf State Park to the Pensacola Pass (crossing Perido Pass and the Alabama-Florida border) from the MHW line and seaward to 1.6 km.

(34) LOGG-N-34 – Mobile Bay — Little Lagoon Pass, Baldwin County, Alabama: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from Mobile Bay Inlet to Little Lagoon Pass from the MHW line and seaward to 1.6 km.

(35) LOGG-N-35 – Petit Bois Island, Jackson County, Mississippi: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from Horn Island Pass to Petit Bois Pass from the MHW line and seaward to 1.6 km.

(36) LOGG-N-36 – Horn Island, Jackson County, Mississippi: This unit contains nearshore reproductive habitat only. The boundaries of the unit are nearshore areas from Dog Keys Pass to the eastern most point of the ocean facing island shore from the MHW line and seaward to 1.6 km.

(37) LOGG-S-1—Atlantic Ocean Sargassum: This unit contains Sargassum habitat and overlaps with breeding habitat (LOGG-N-17). The western edge of the unit is the Gulf of Mexico-Atlantic border (83° W. long.) from 24.58° N. lat. to 23.82° N. lat. The outer boundary of the unit is the U.S. EEZ, starting at the Gulf of Mexico-Atlantic

border (23.82° N. lat., 83° W. long.) and proceeding east and north until the EEZ coincides with the Gulf Stream at 37.84°N. lat., 70.59° W. long. The inner boundary of the unit starts at the Gulf of Mexico-Atlantic border (24.58° N. lat., 83° W. long.) to the outer edge of the breeding/migratory critical habitat (LOGG-N-19) at 24.34° N. lat., 82.16° W. long., along the outer edge of the corridor (following the 200 m depth contour) until it coincides with the breeding habitat off of Cape Canaveral (LOGG-N-17) at 27.97 ° N. lat., 80.14 ° W. long., and from there roughly following the velocity of 0.401-0.50 m/second (Ocean Conservancy 2012; PMEL 2012) until it coincides with the outer edge of the EEZ at 37.84°N. lat., 70.59° W. long.

(38) LOGG-S-2 -- Gulf of Mexico Sargassum. This unit contains Sargassum habitat only. The northern and western boundaries of the unit follow the 10 m depth contour starting at the mouth of South Pass of the Mississippi River proceeding west and south to the outer boundary of the U.S. EEZ. The southern boundary of the unit is the U.S. EEZ from the 10 m depth contour off of Texas to the Gulf of Mexico-Atlantic border (83° W. long.). The eastern boundary follows the 10 m depth contour from the mouth of South Pass of the Mississippi River at 28.97° N. lat., 89.15° W. long., in a straight line to the northernmost boundary of the Loop Current (28° N. lat., 89° W. long.) and along the eastern edge of the Loop Current roughly following the velocity of 0.101-0.20 m/second as depicted by Love et al. (2013) using the Gulf of Mexico summer mean sea surface currents from 1993-2011, to the Gulf of Mexico-Atlantic border (24.58° N. lat., 83° W. long.).

(b) Physical or biological features and primary constituent elements essential for conservation. The physical or biological features (PBFs) and primary constituent

elements (PCEs) essential for conservation of the Northwest Atlantic Ocean DPS of the loggerhead sea turtle are identified by habitat type below.

(1) Nearshore reproductive habitat. The PBF of nearshore reproductive habitat as a portion of the nearshore waters adjacent to nesting beaches that are used by hatchlings to egress to the open-water environment as well as by nesting females to transit between beach and open water during the nesting season. The following PCEs support this habitat:

(i) Nearshore waters directly off the highest density nesting beaches and their adjacent beaches, as identified in 50 CFR 17.95(c), to 1.6 km 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 manmade 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.

(2) Winter habitat. We describe the PBF of the winter habitat as warm water habitat south of Cape Hatteras near the western edge of the Gulf Stream used by a high concentration of juveniles and adults during the winter months. PCEs that support this habitat are the following:

(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 m.

(3) Breeding habitat. We describe the PBF of concentrated breeding habitat as those sites with high densities of both male and female adult individuals during the breeding season. PCEs that support this habitat are the following:

(i) High densities of reproductive male and female loggerheads;

(ii) Proximity to primary Florida migratory corridor; and

(iii) Proximity to Florida nesting grounds.

(4) Constricted migratory habitat. We describe the PBF of constricted migratory habitat as 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. 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.

(5) Sargassum habitat. We describe the PBF of loggerhead Sargassum habitat as developmental and foraging habitat for young loggerheads where surface waters form accumulations of floating material, especially Sargassum. 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 where there are concentrated components of the Sargassum community in water temperatures suitable for the optimal growth of Sargassum and inhabitance of loggerheads;

(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; and

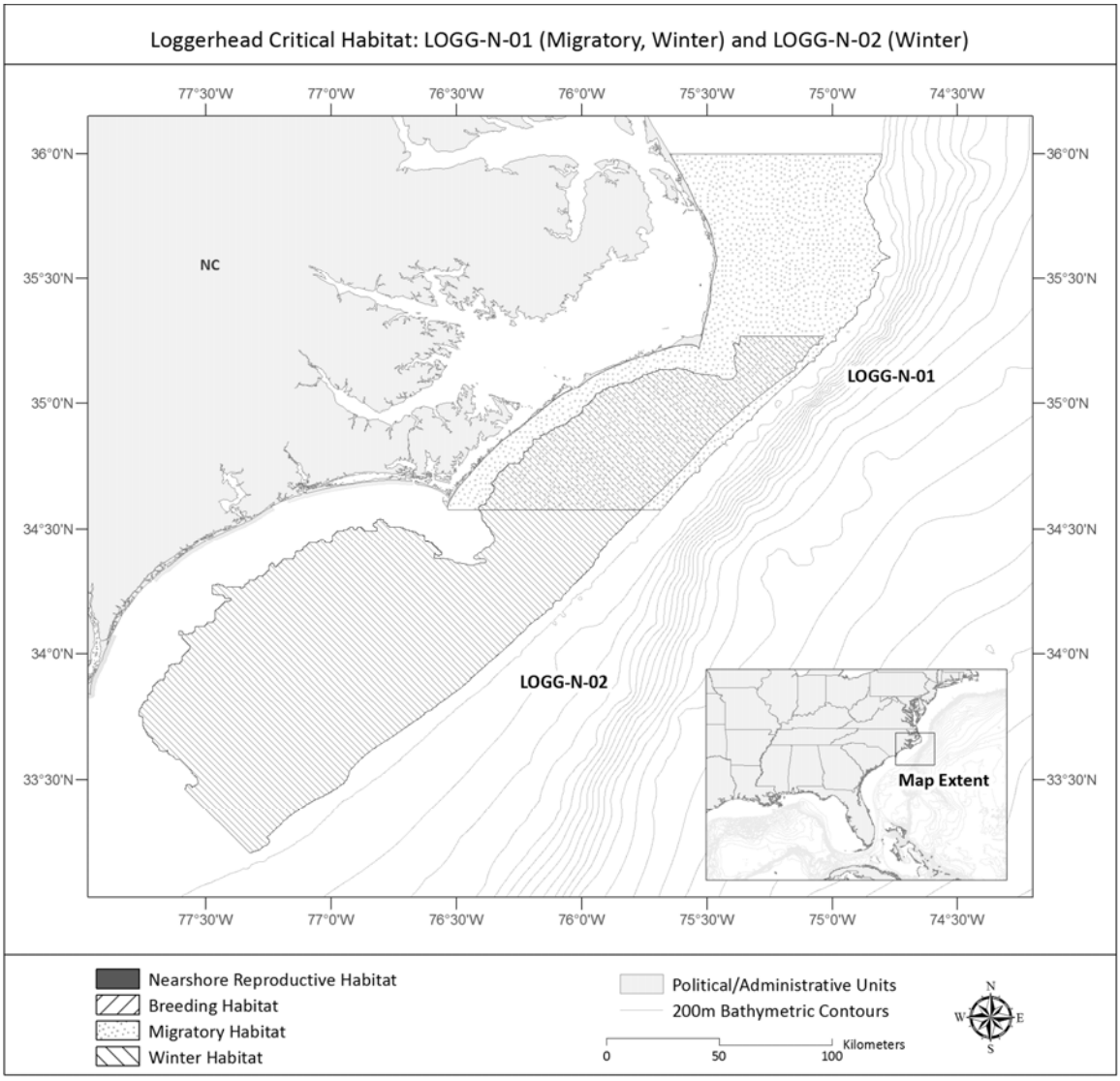
(iv) Sufficient water depth and proximity to available currents to ensure offshore transport (out of the surf zone), and foraging and cover requirements by Sargassum for post-hatchling loggerheads, i.e., >10 m depth.

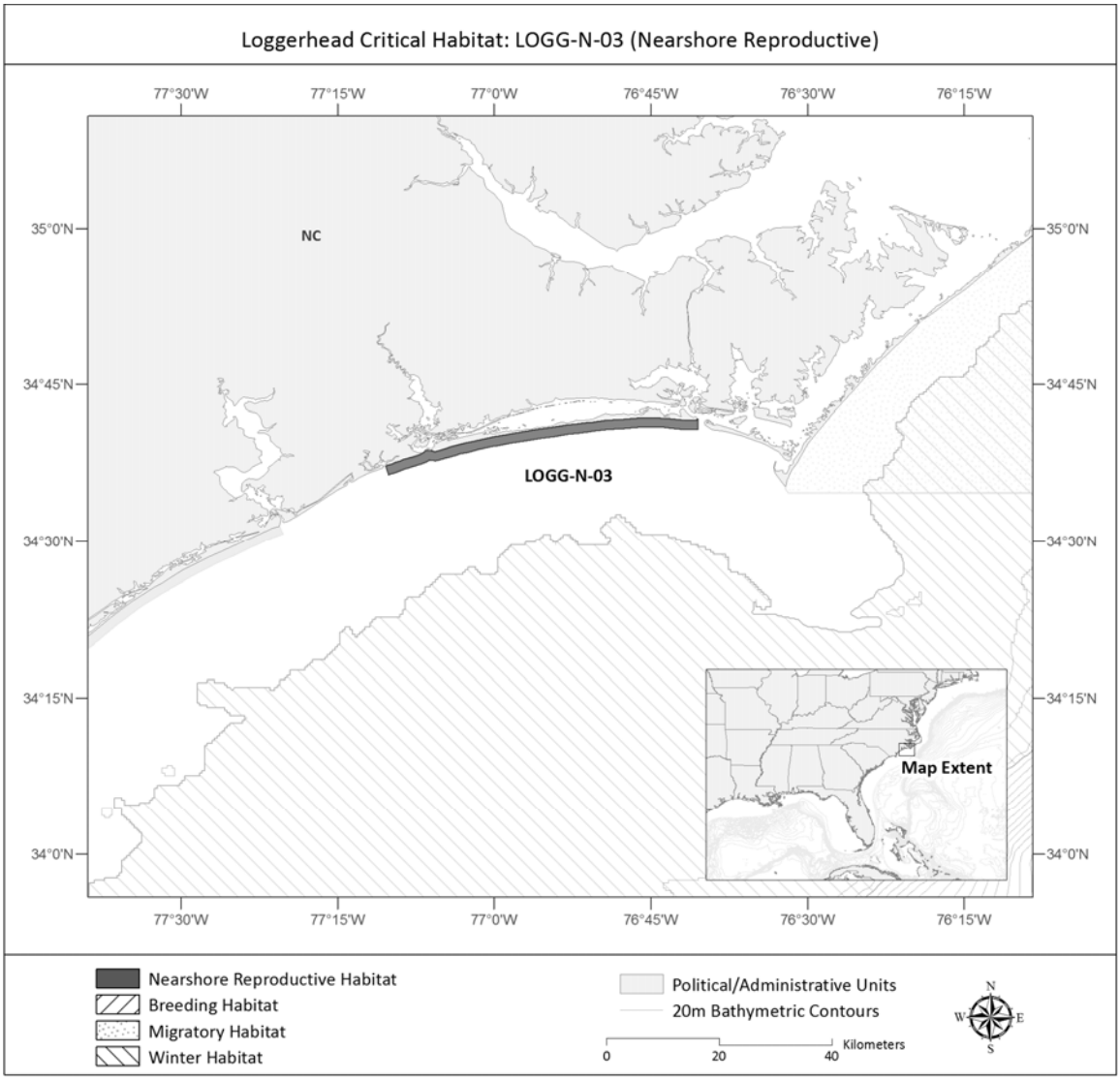
(c) Areas not included in critical habitat. Critical habitat does not include the following particular areas where they overlap with the areas described in paragraph (a) of this section:

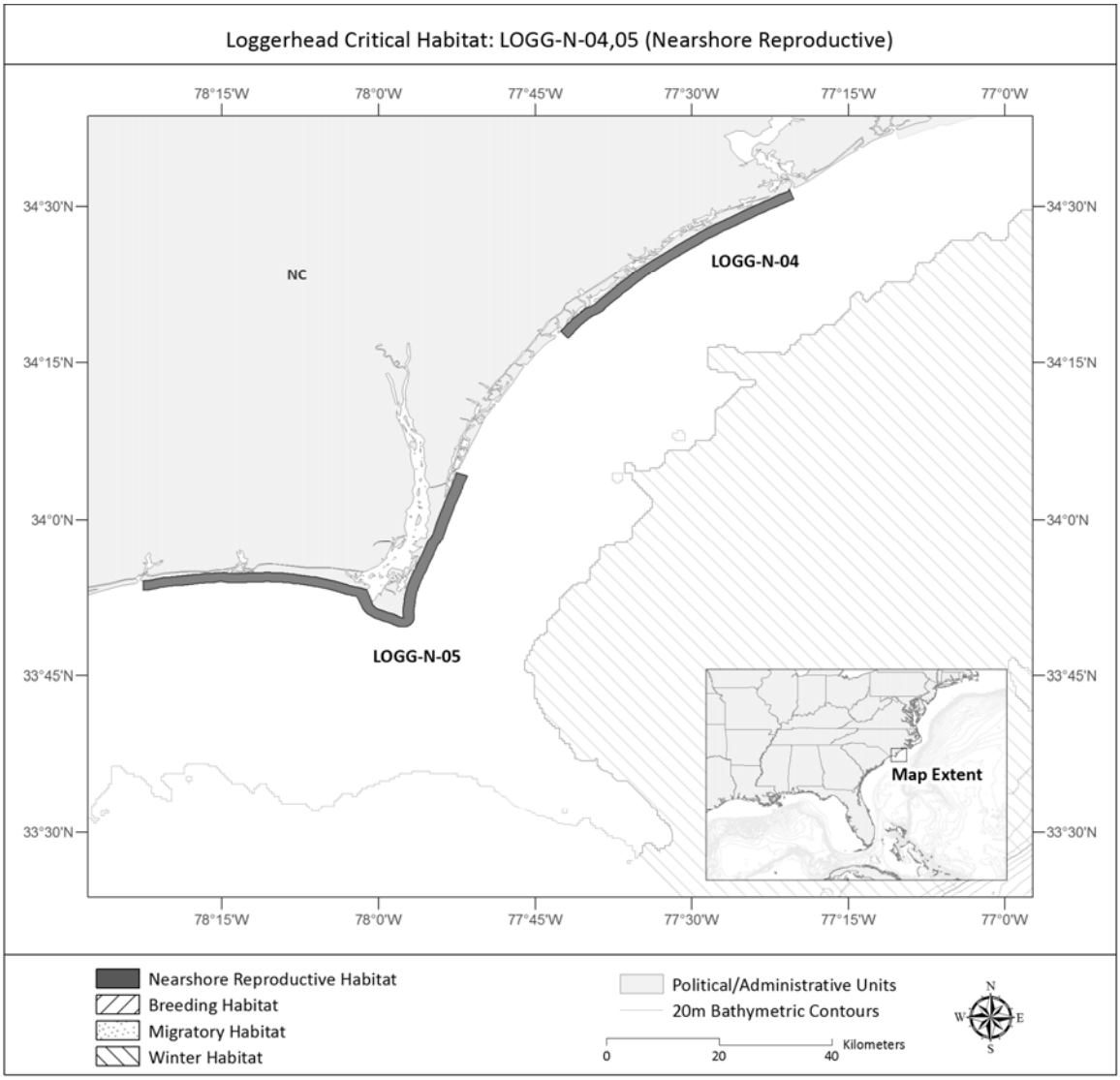
(1) Pursuant to ESA section 4(a)(3)(B), all areas subject to the Naval Air Station Key West Integrated Natural Resources Management Plan.

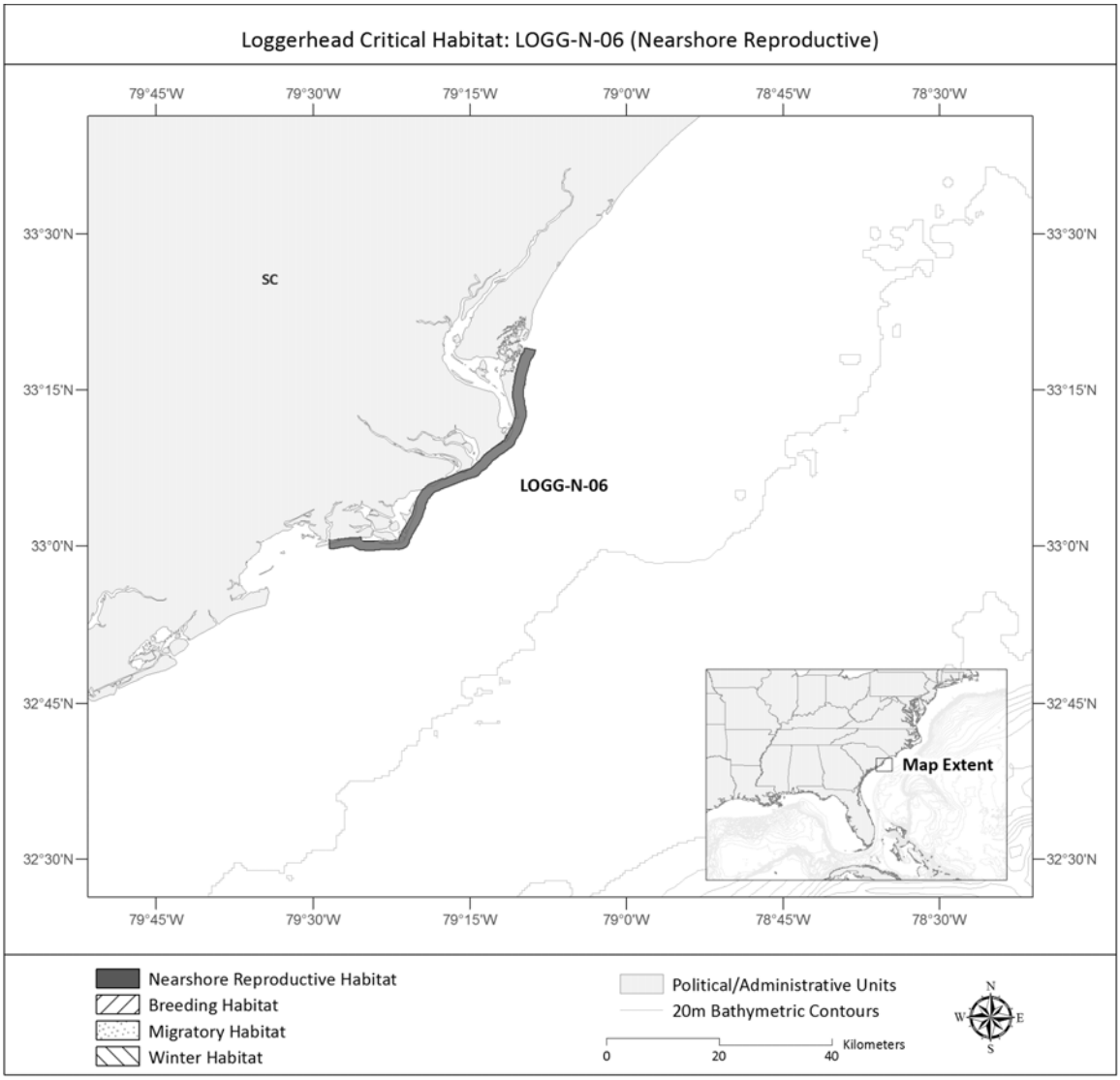
(2) Pursuant to ESA section 3(5)(A)(i), all federally authorized or permitted manmade structures such as aids-to-navigation, boat ramps, platforms, docks, and pilings existing within the legal boundaries on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

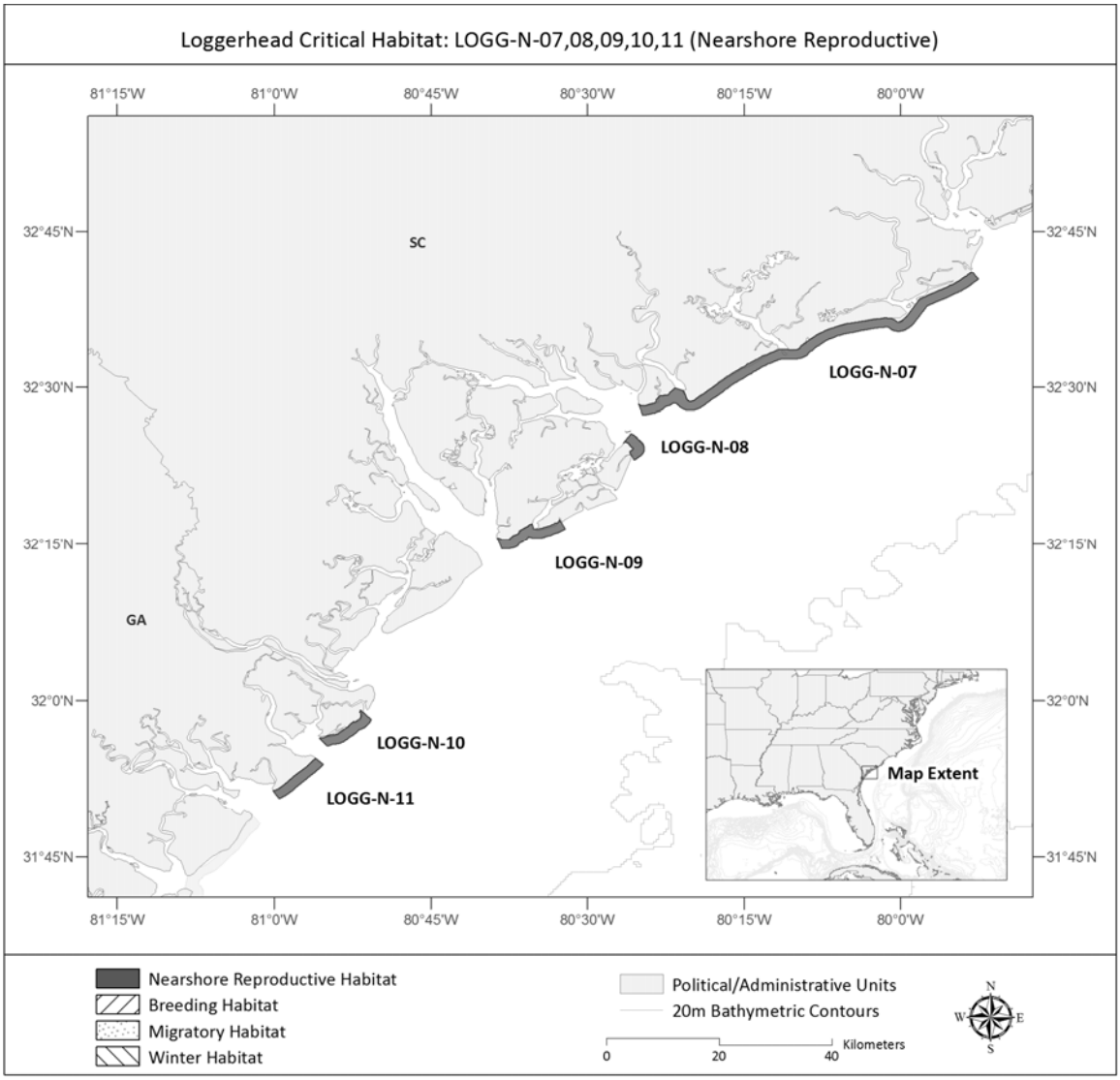
(d) Maps of loggerhead critical habitat follow:

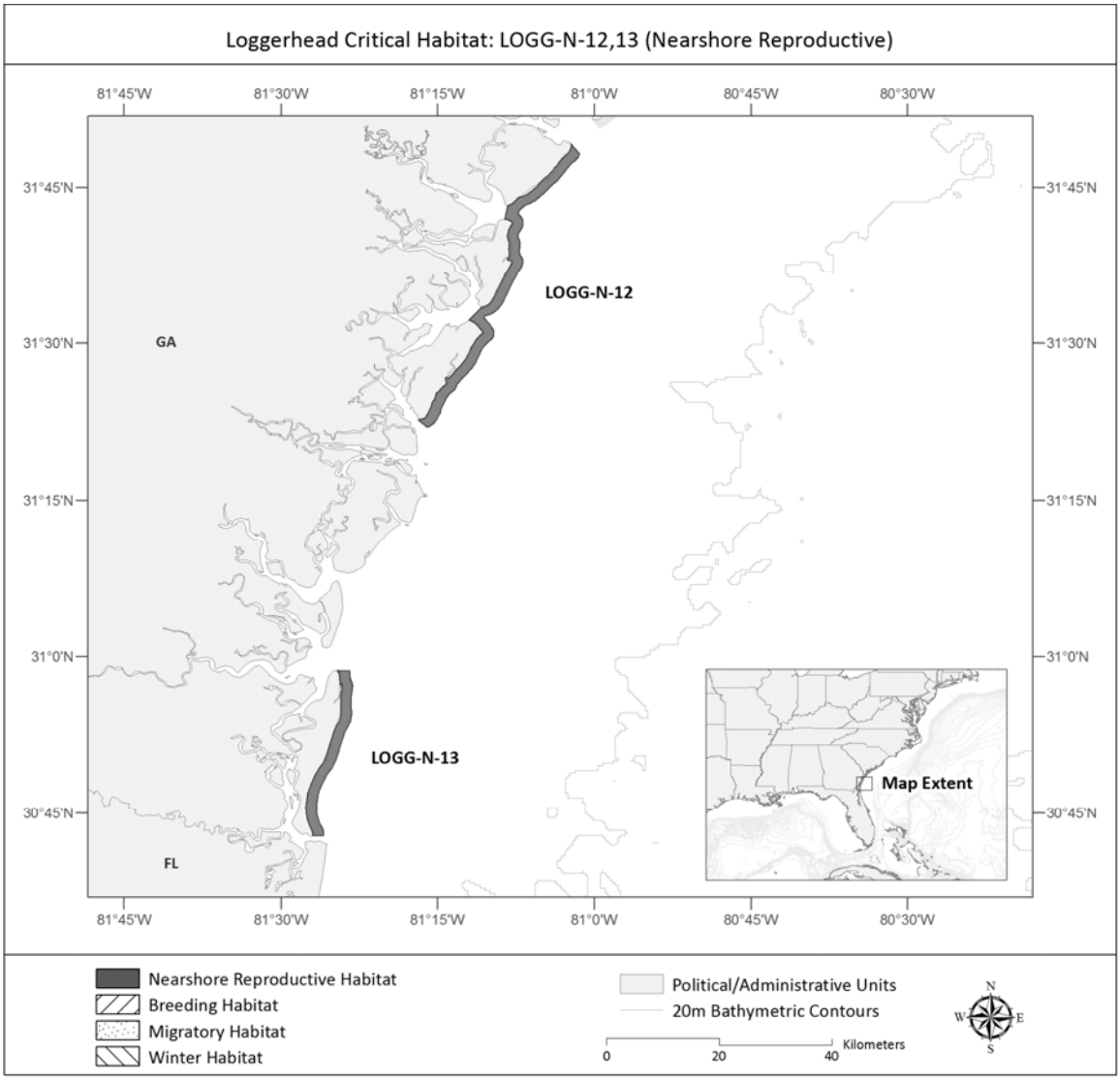

Loggerhead Critical Habitat: LOGG-N-01 (Migratory, Winter) and LOGG-N-02 (Winter)
77°30'W
77°0'W
76°30'W
76°0'W
75°30'W
75°0'W
74°30'W
36°0'N
35°30'N
35°0'N
34°30'N
34°0'N
33°30'N
NC
LOGG-N-01
LOGG-N-02
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
200m Bathymetric Contours
0
50
100
Kilometers
N
W
E
S

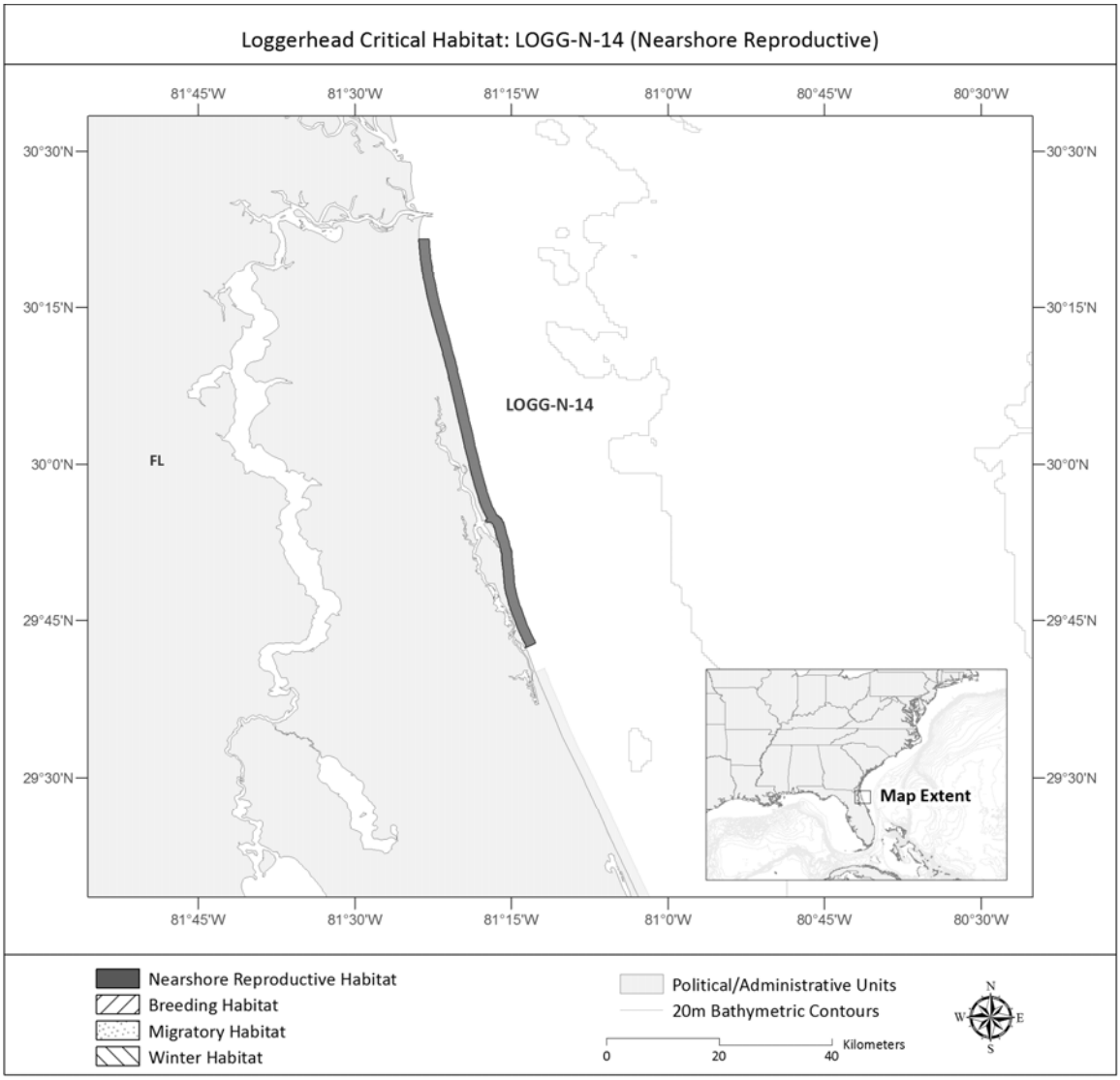

Loggerhead Critical Habitat: LOGG-N-03 (Nearshore Reproductive)
77°30'W
77°15'W
77°0'W
76°45'W
76°30'W
76°15'W
35°0'N
34°45'N
34°30'N
34°15'N
34°0'N
NC
LOGG-N-03
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

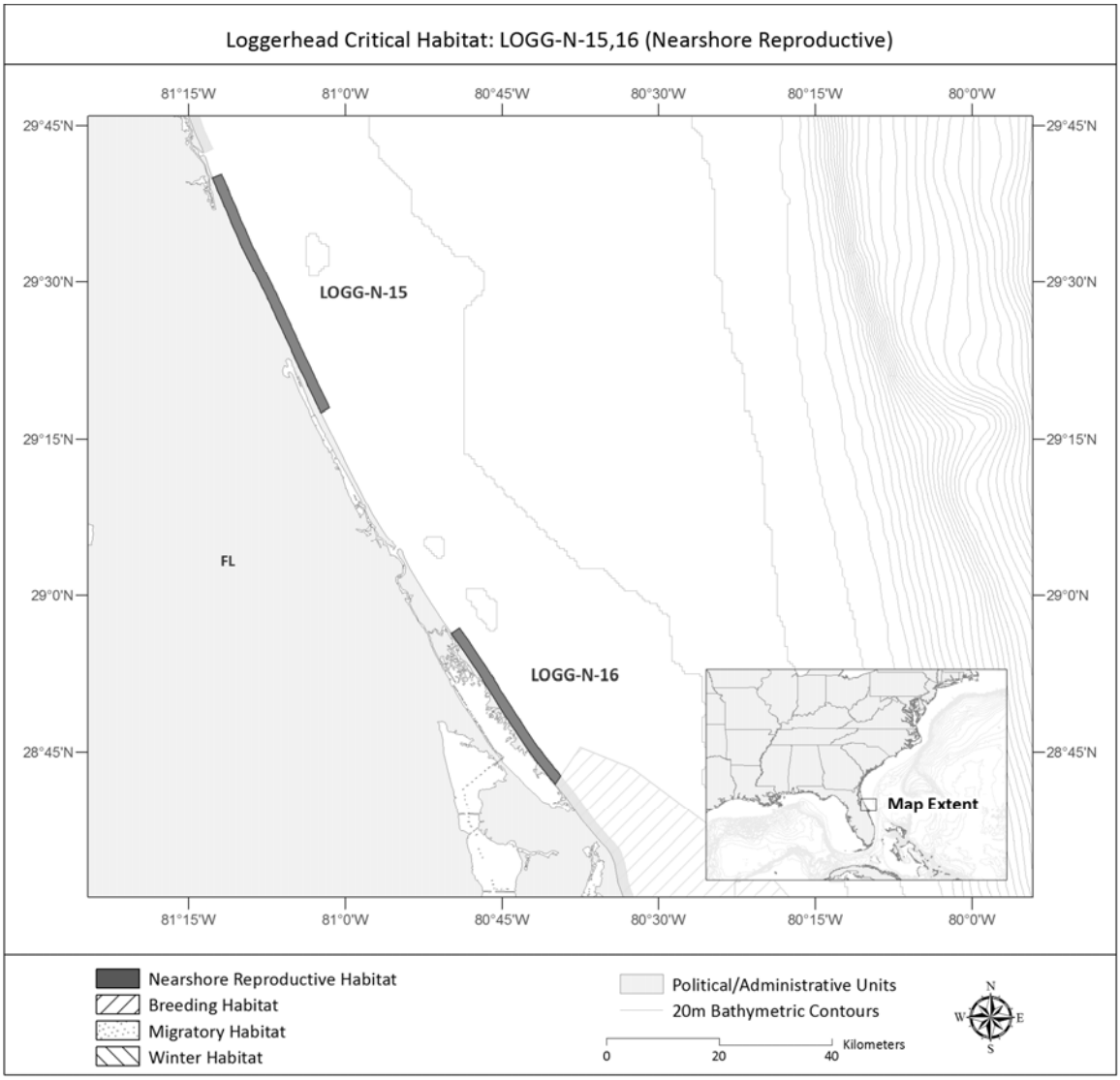

Loggerhead Critical Habitat: LOGG-N-04,05 (Nearshore Reproductive)
78°15'W
78°0'W
77°45'W
77°30'W
77°15'W
77°0'W
34°30'N
34°15'N
34°0'N
33°45'N
33°30'N
NC
LOGG-N-04
LOGG-N-05
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

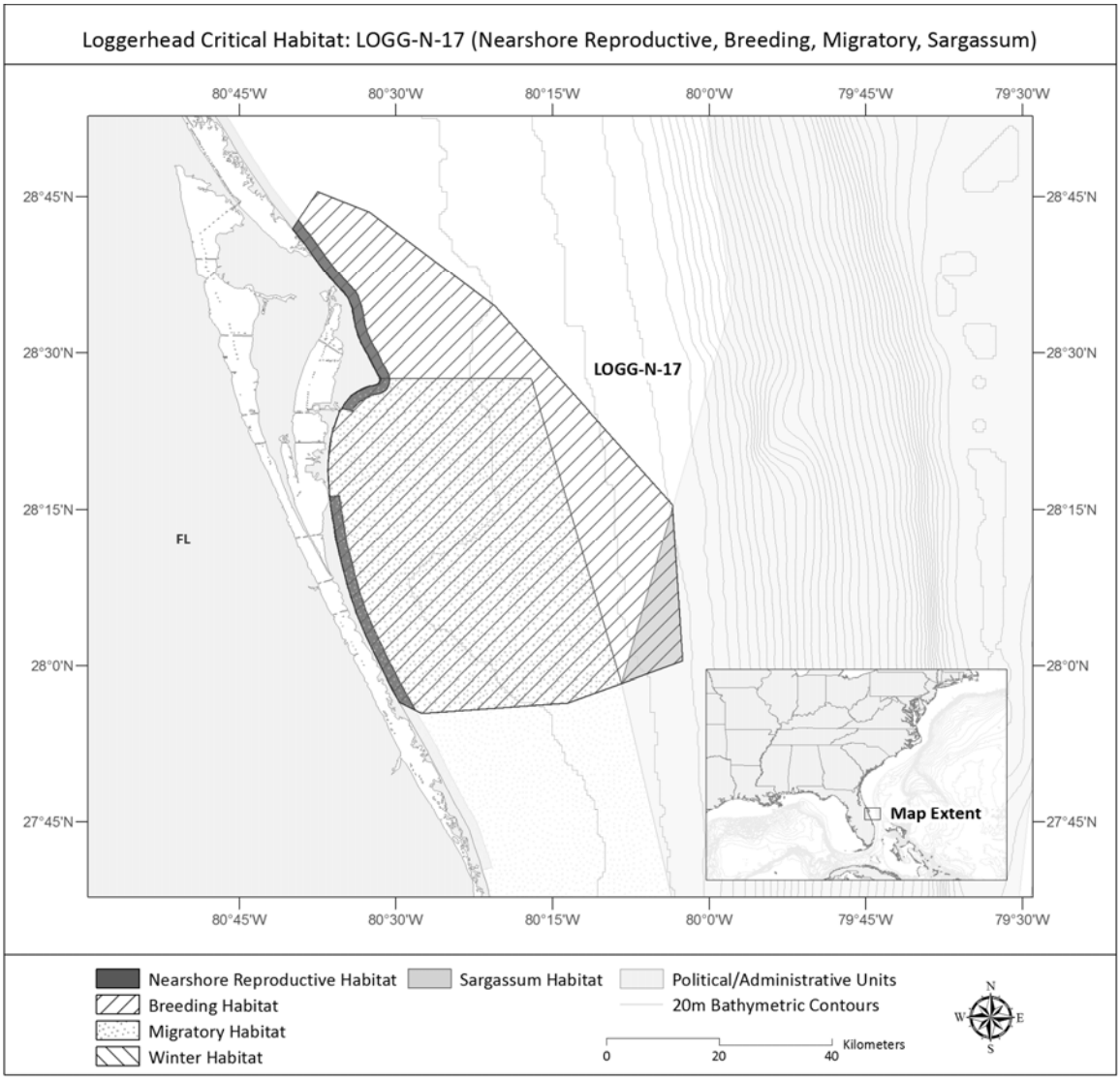

Loggerhead Critical Habitat: LOGG-N-06 (Nearshore Reproductive)
79°45'W
79°30'W
79°15'W
79°0'W
78°45'W
78°30'W
33°30'N
33°15'N
33°0'N
32°45'N
32°30'N
SC
LOGG-N-06
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

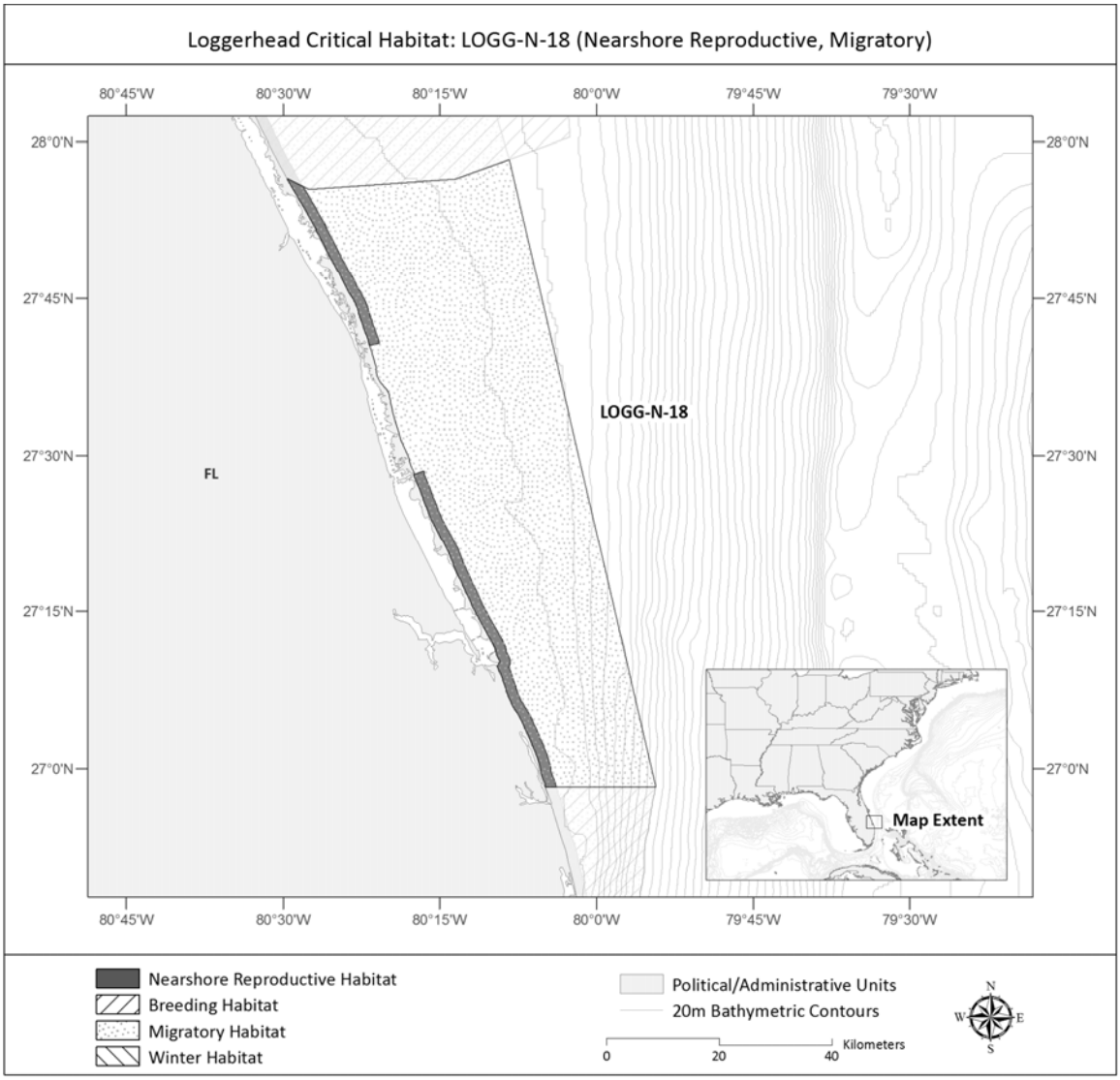

Loggerhead Critical Habitat: LOGG-N-07,08,09,10,11 (Nearshore Reproductive)
81°15'W
81°0'W
80°45'W
80°30'W
80°15'W
80°0'W
32°45'N
32°30'N
32°15'N
32°0'N
31°45'N
SC
GA
LOGG-N-07
LOGG-N-08
LOGG-N-09
LOGG-N-10
LOGG-N-11
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

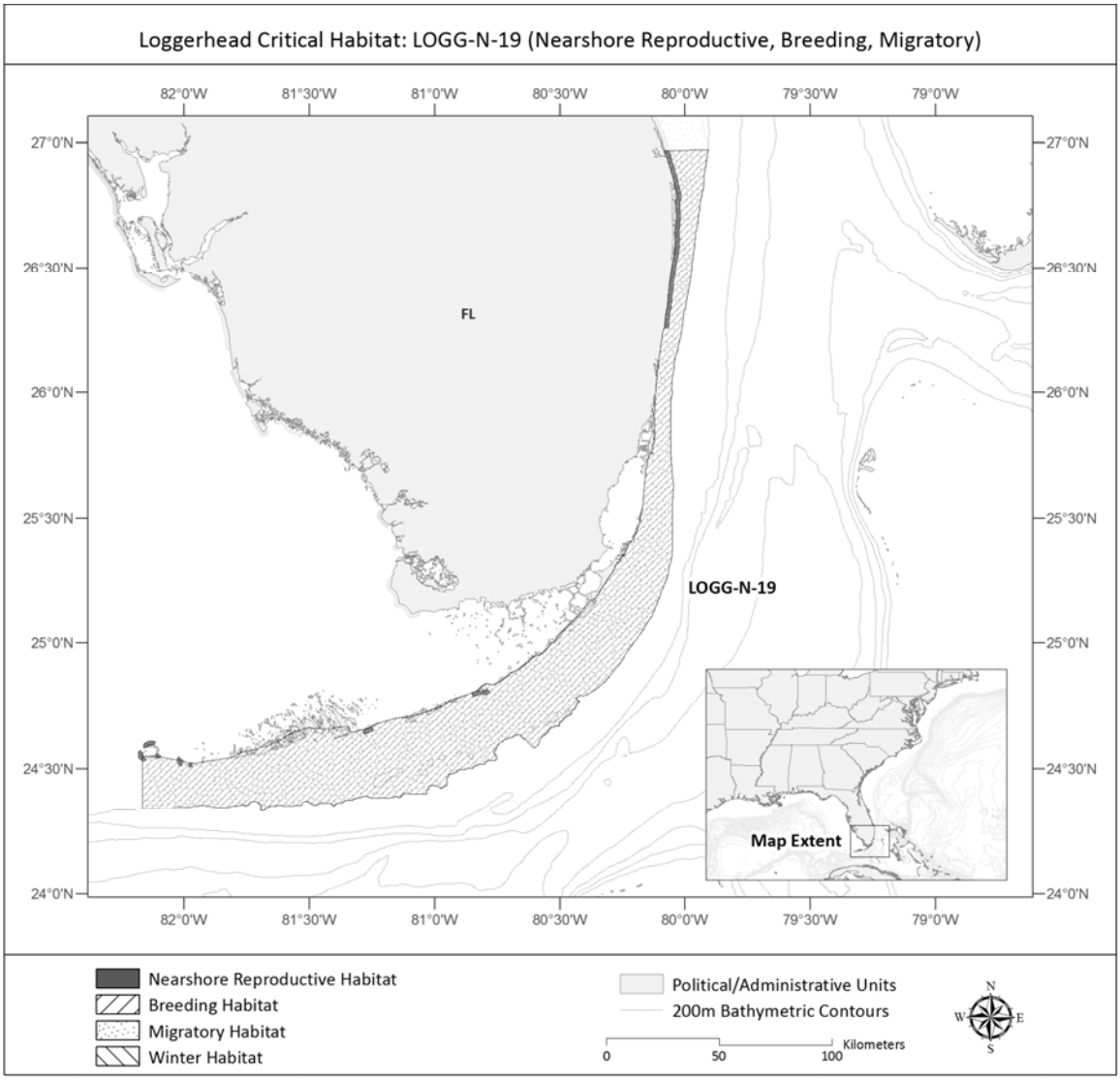

Loggerhead Critical Habitat: LOGG-N-12,13 (Nearshore Reproductive)
81°45'W
81°30'W
81°15'W
81°0'W
80°45'W
80°30'W
31°45'N
31°30'N
31°15'N
31°0'N
30°45'N
LOGG-N-12
LOGG-N-13
GA
FL
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

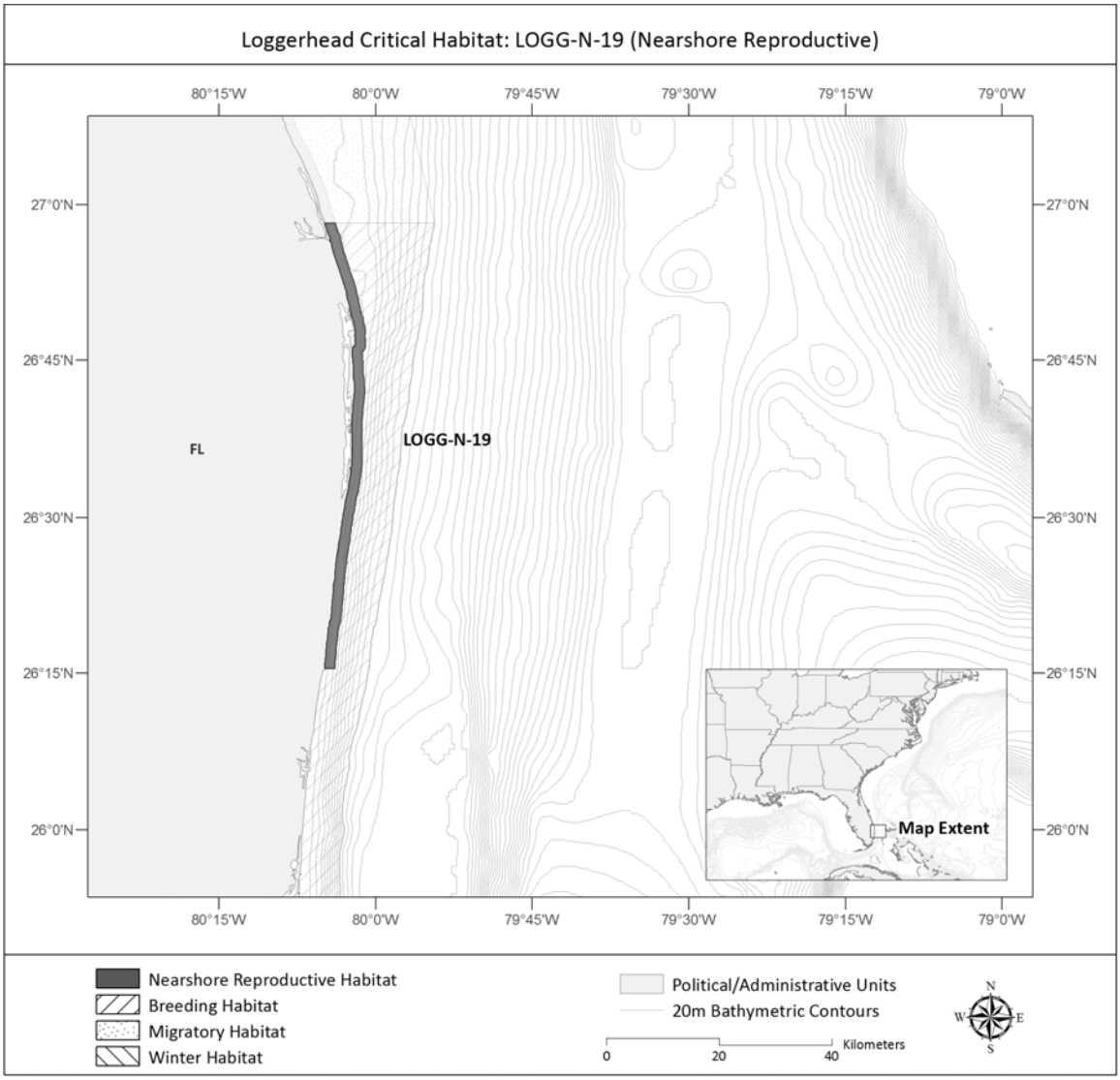

Loggerhead Critical Habitat: LOGG-N-14 (Nearshore Reproductive)
81°45'W
81°30'W
81°15'W
81°0'W
80°45'W
80°30'W
30°30'N
30°15'N
30°0'N
29°45'N
29°30'N
LOGG-N-14
FL
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

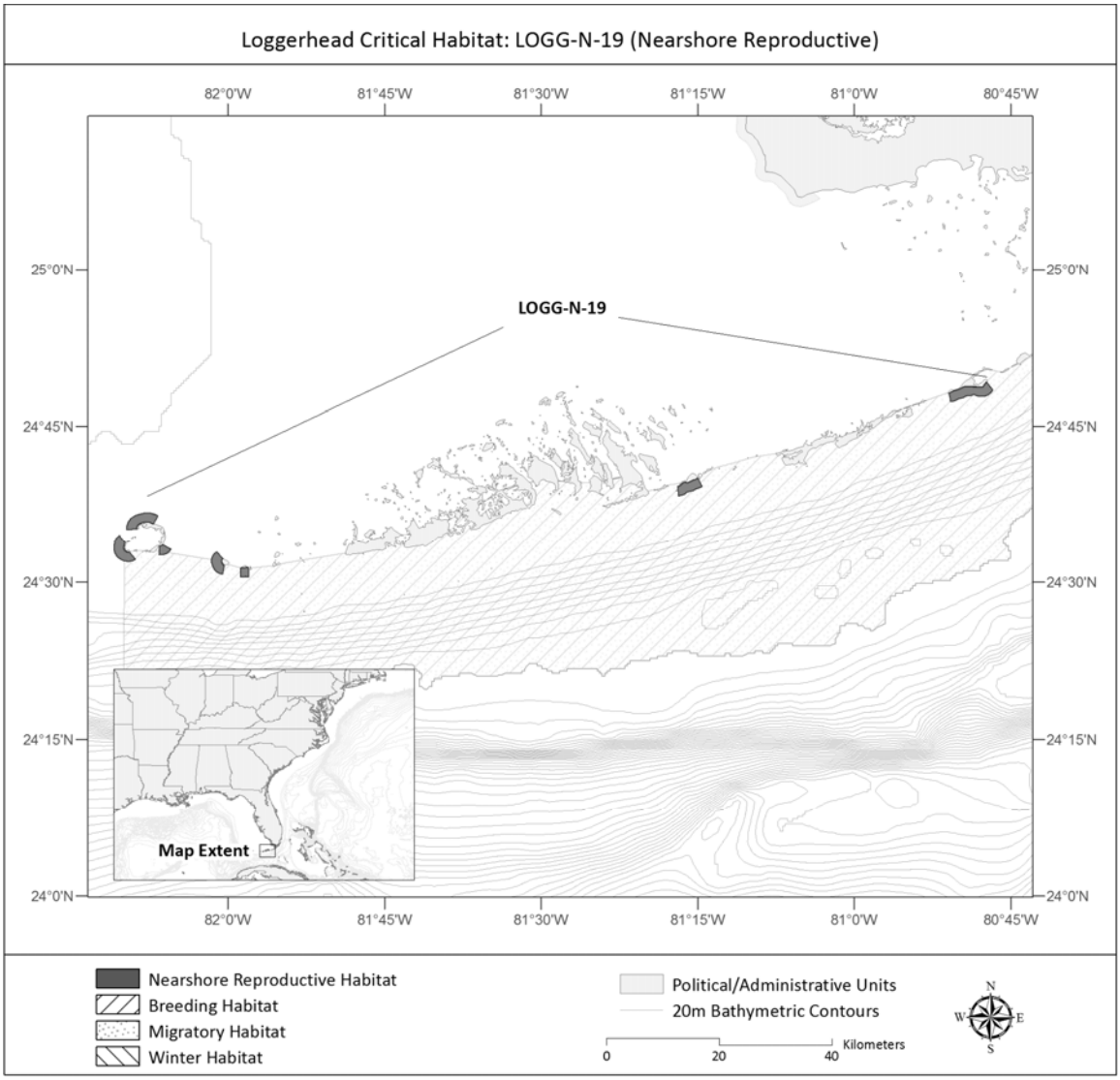

Loggerhead Critical Habitat: LOGG-N-15,16 (Nearshore Reproductive)
81°15'W
81°0'W
80°45'W
80°30'W
80°15'W
80°0'W
29°45'N
29°30'N
29°15'N
29°0'N
28°45'N
LOGG-N-15
LOGG-N-16
FL
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

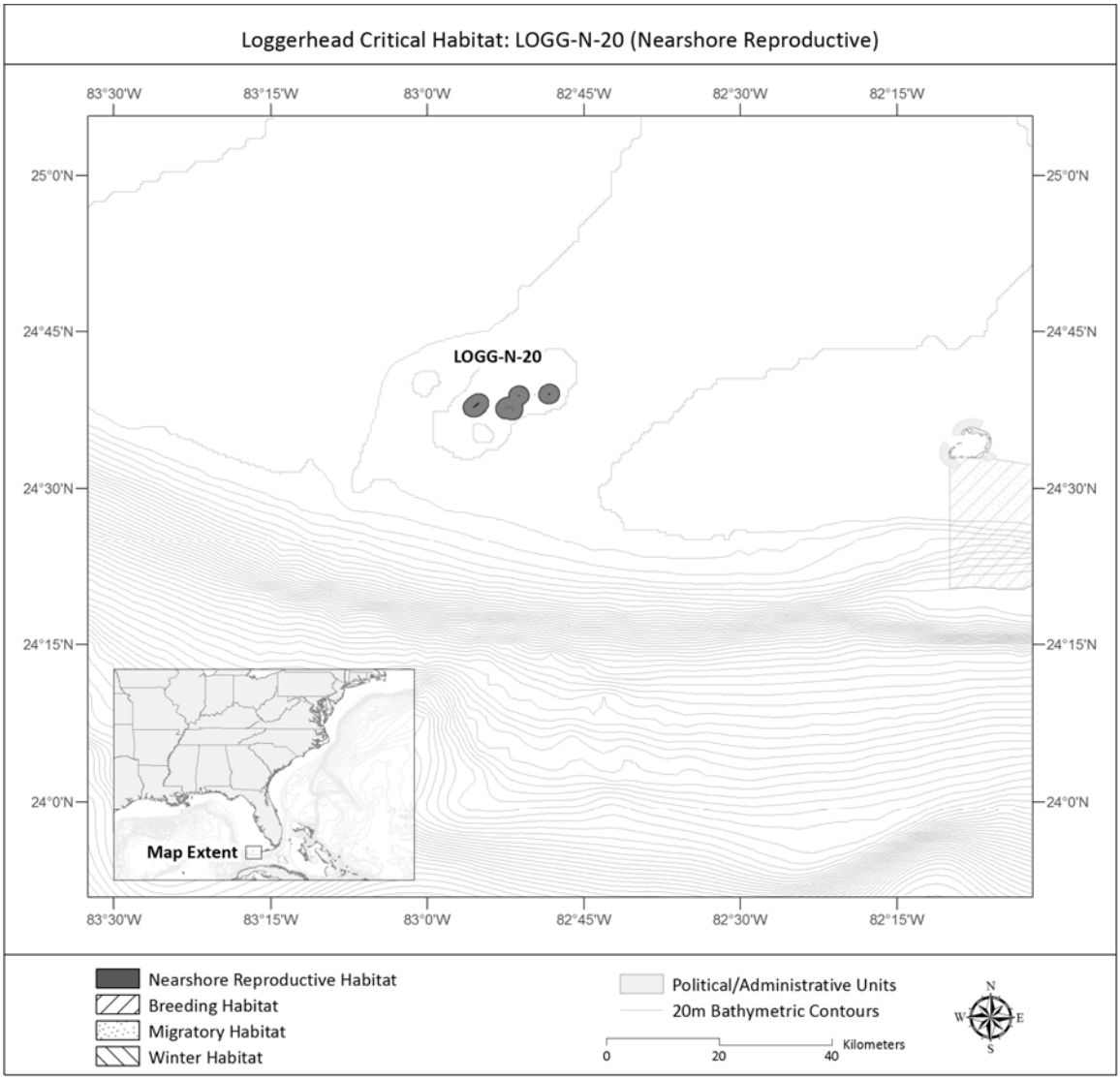

Loggerhead Critical Habitat: LOGG-N-17 (Nearshore Reproductive, Breeding, Migratory, Sargassum)
80°45'W
80°30'W
80°15'W
80°0'W
79°45'W
79°30'W
28°45'N
28°30'N
28°15'N
28°0'N
27°45'N
LOGG-N-17
FL
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Sargassum Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

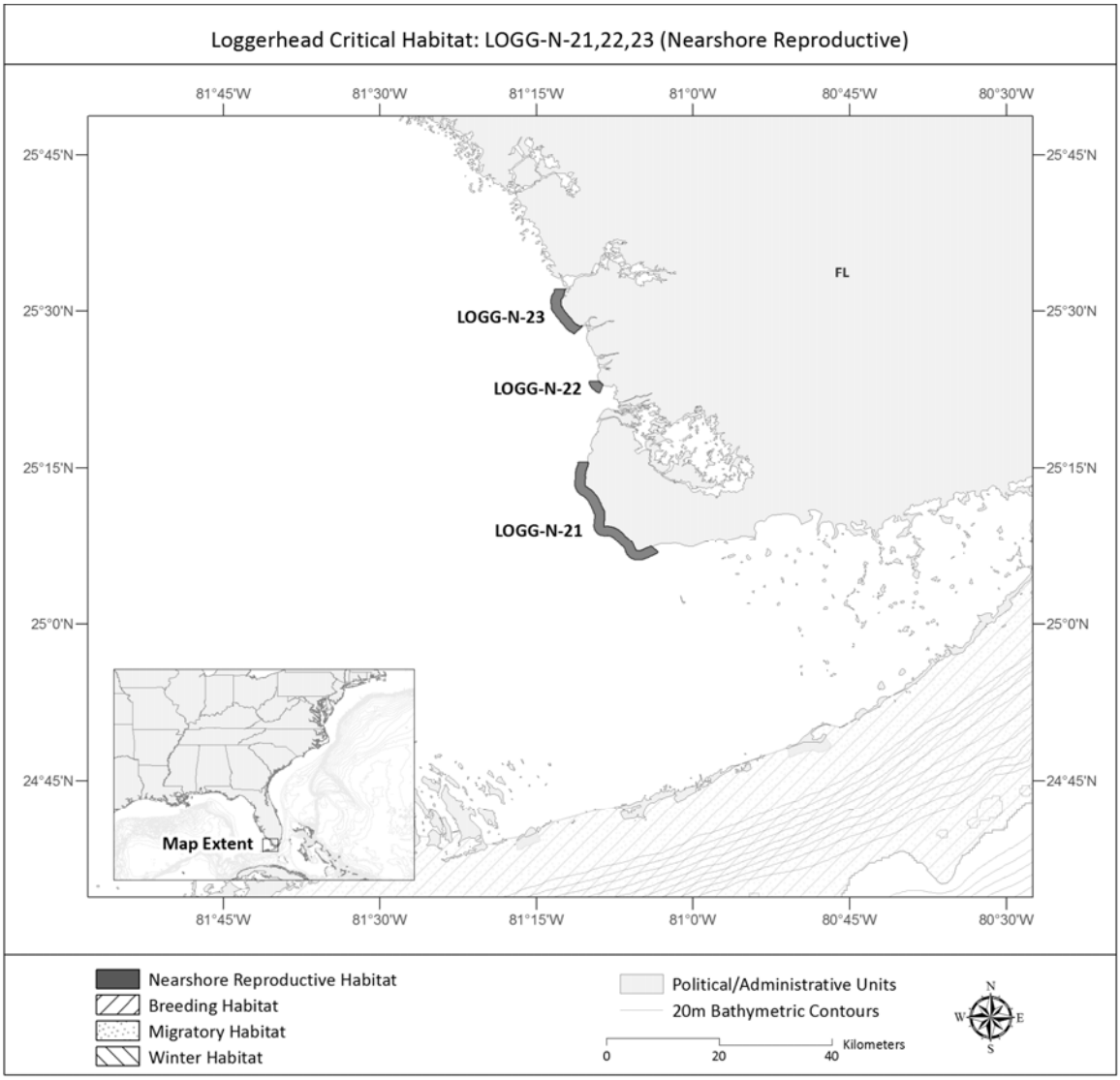

Loggerhead Critical Habitat: LOGG-N-18 (Nearshore Reproductive, Migratory)
80°45'W
80°30'W
80°15'W
80°0'W
79°45'W
79°30'W
28°0'N
27°45'N
27°30'N
27°15'N
27°0'N
LOGG-N-18
FL
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

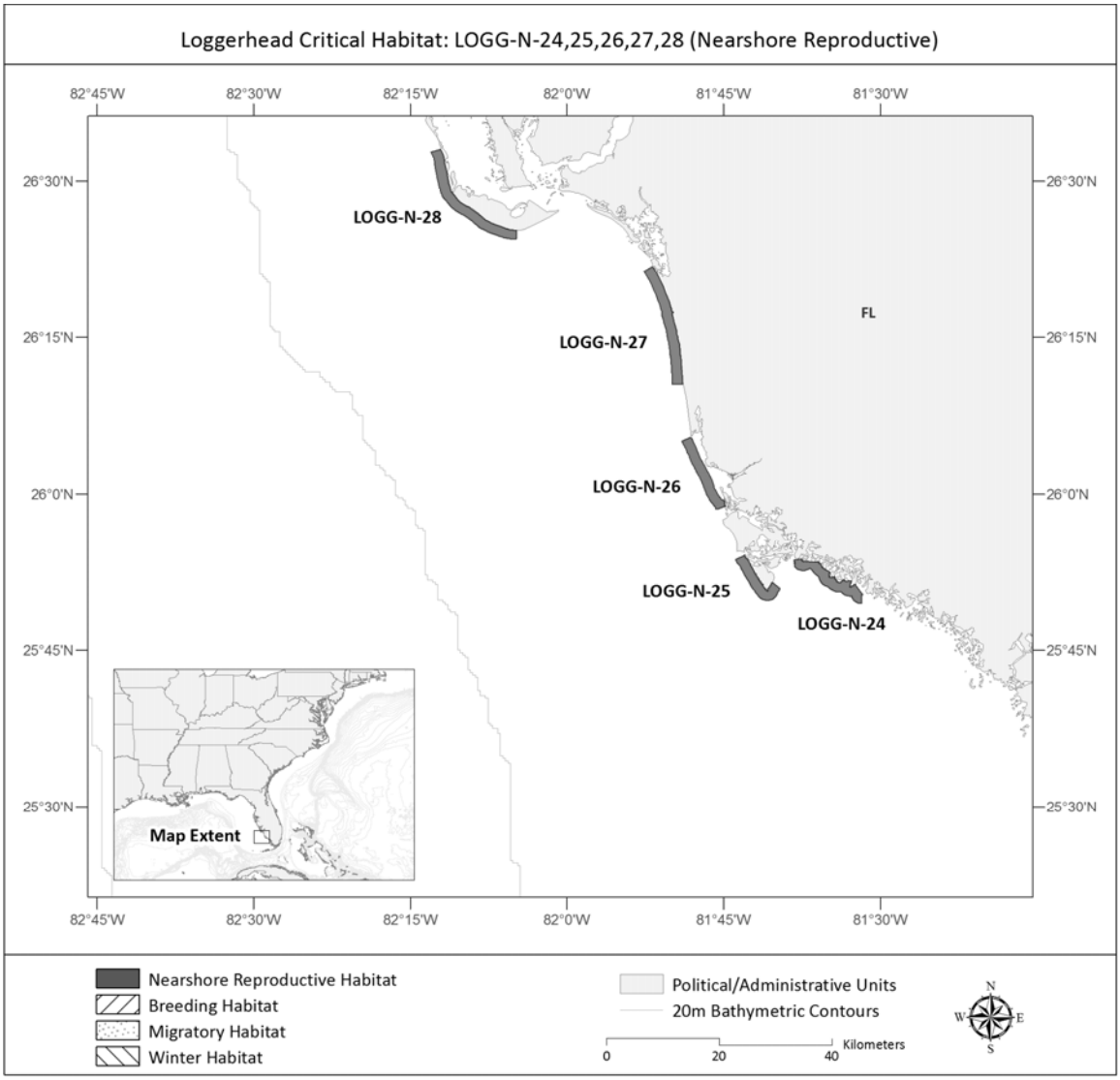

Loggerhead Critical Habitat: LOGG-N-19 (Nearshore Reproductive, Breeding, Migratory)
82°0'W
81°30'W
81°0'W
80°30'W
80°0'W
79°30'W
79°0'W
27°0'N
26°30'N
26°0'N
25°30'N
25°0'N
24°30'N
24°0'N
FL
LOGG-N-19
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
200m Bathymetric Contours
0
50
100
Kilometers
N
W
E
S

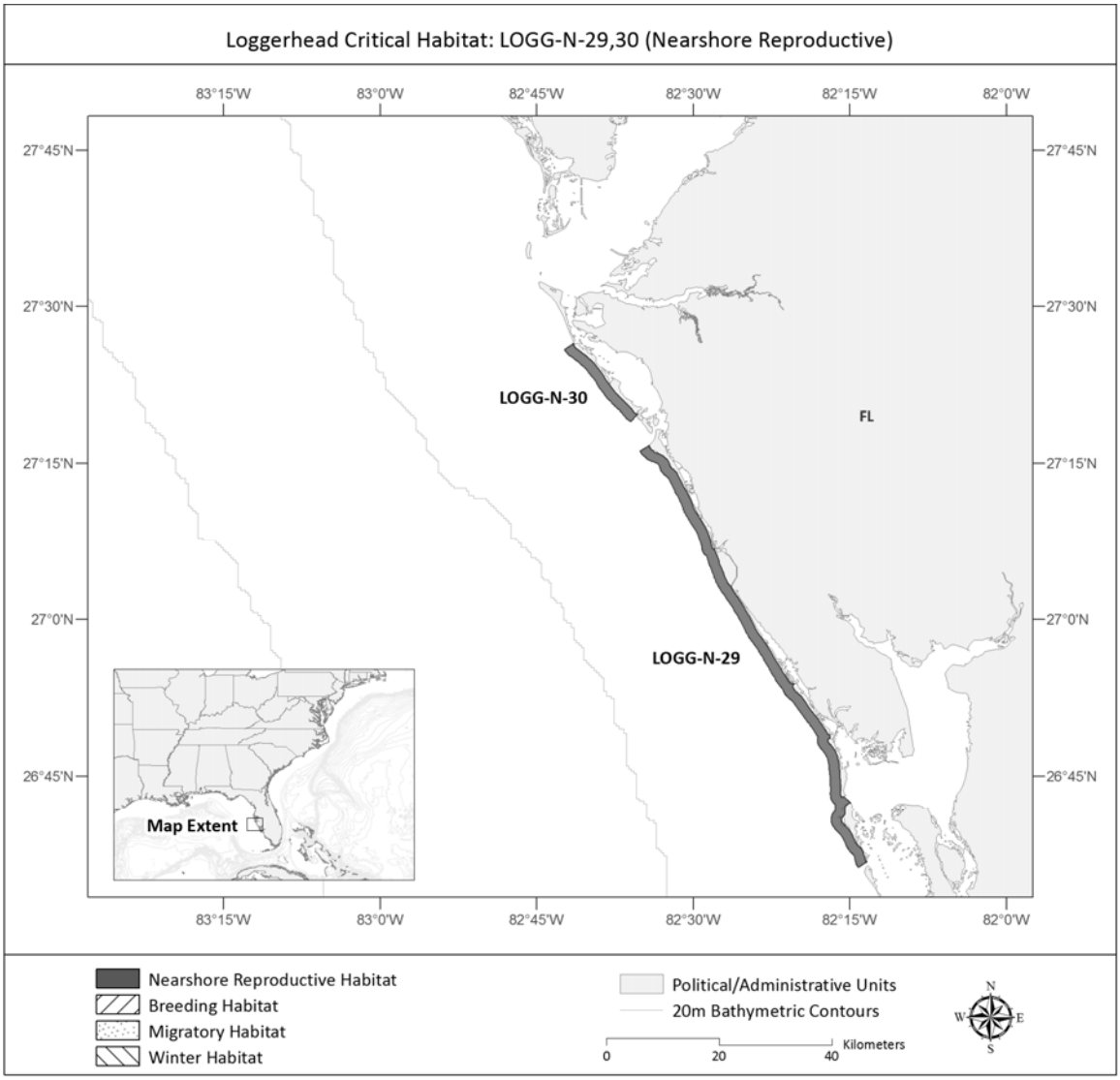

Loggerhead Critical Habitat: LOGG-N-19 (Nearshore Reproductive)
80°15'W
80°0'W
79°45'W
79°30'W
79°15'W
79°0'W
27°0'N
26°45'N
26°30'N
26°15'N
26°0'N
FL
LOGG-N-19
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

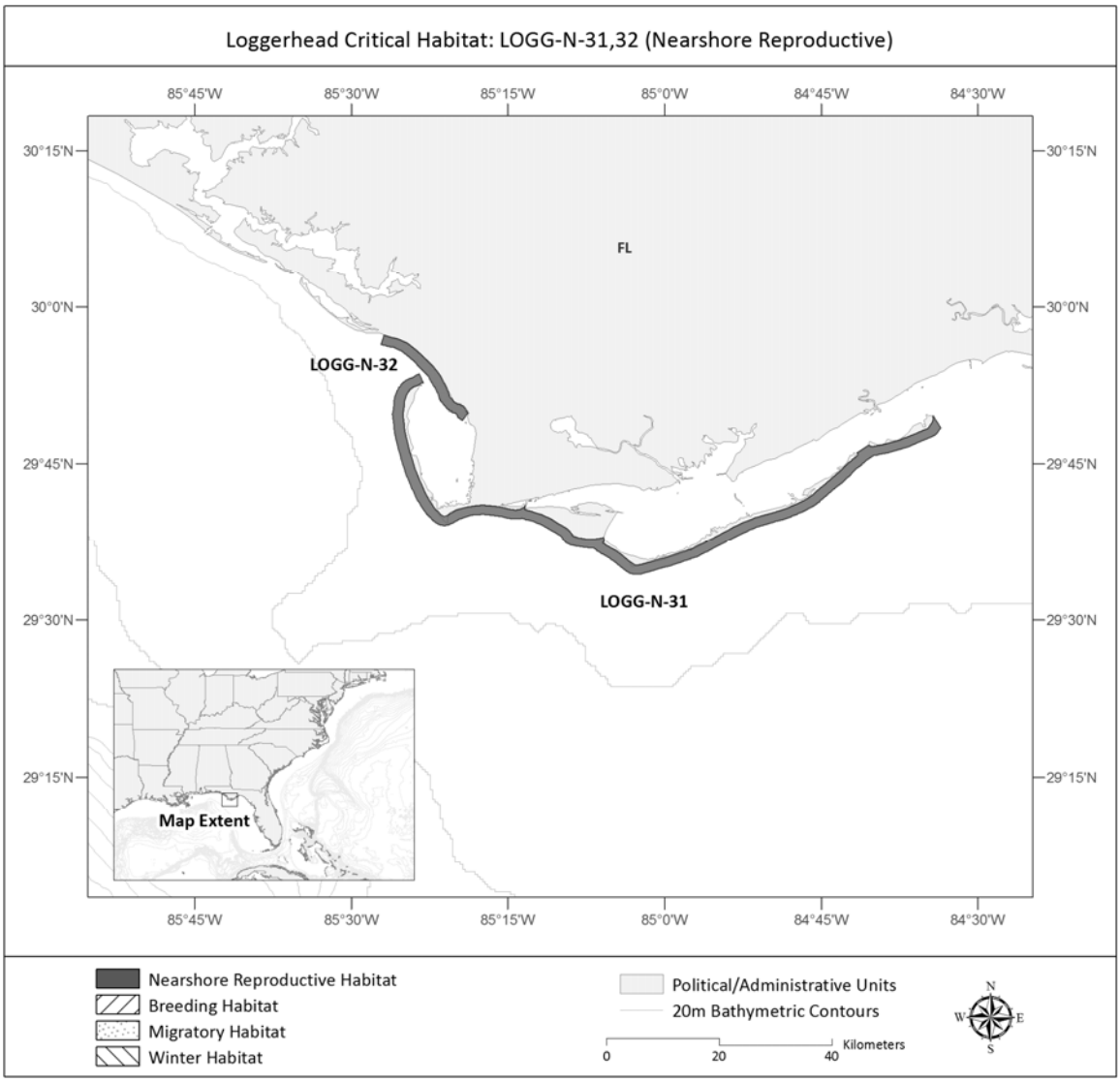

Loggerhead Critical Habitat: LOGG-N-19 (Nearshore Reproductive)
82°0'W
81°45'W
81°30'W
81°15'W
81°0'W
80°45'W
25°0'N
24°45'N
24°30'N
24°15'N
24°0'N
LOGG-N-19
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

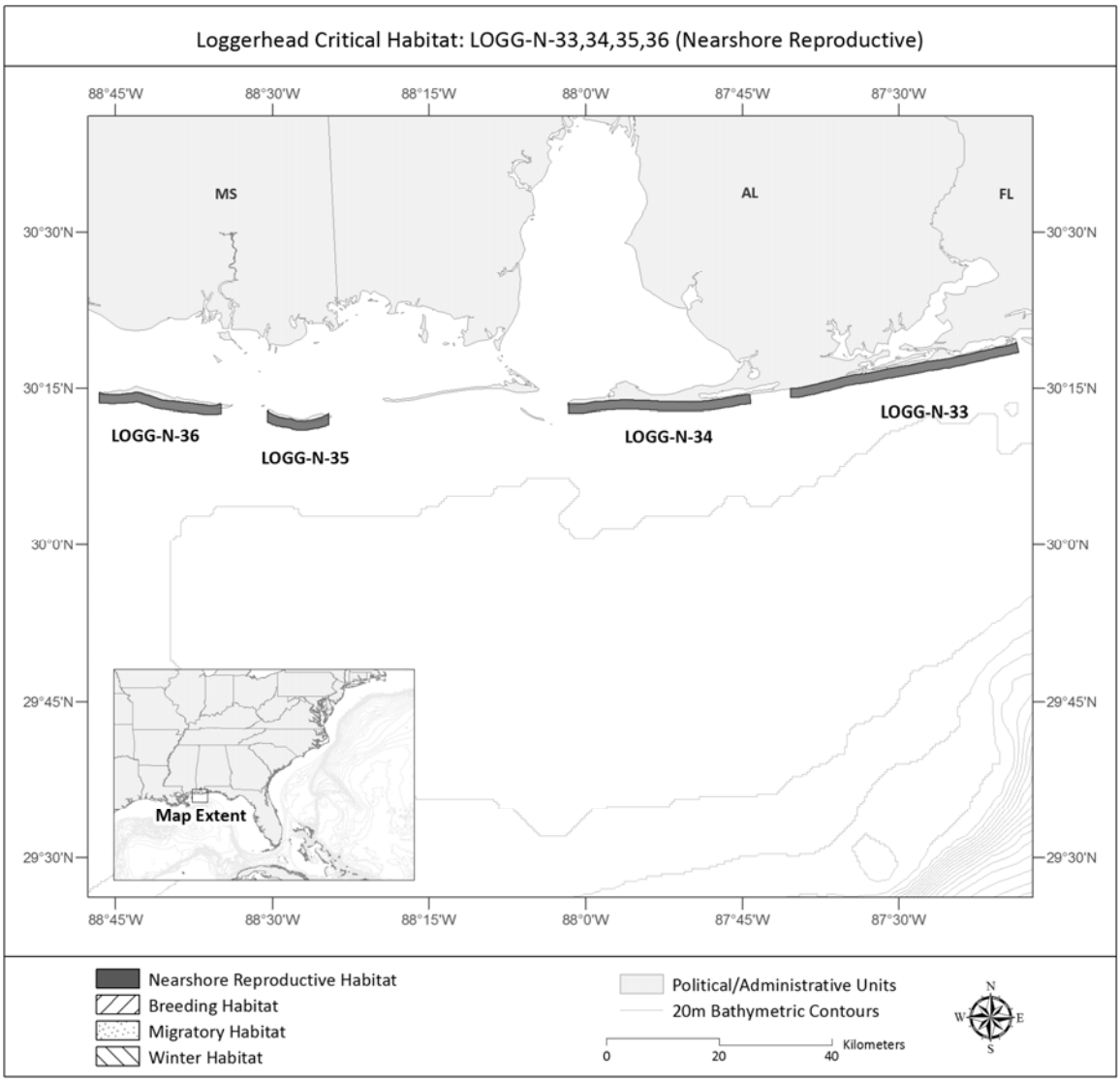

Loggerhead Critical Habitat: LOGG-N-20 (Nearshore Reproductive)
83°30'W
83°15'W
83°0'W
82°45'W
82°30'W
82°15'W
25°0'N
24°45'N
24°30'N
24°15'N
24°0'N
LOGG-N-20
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S

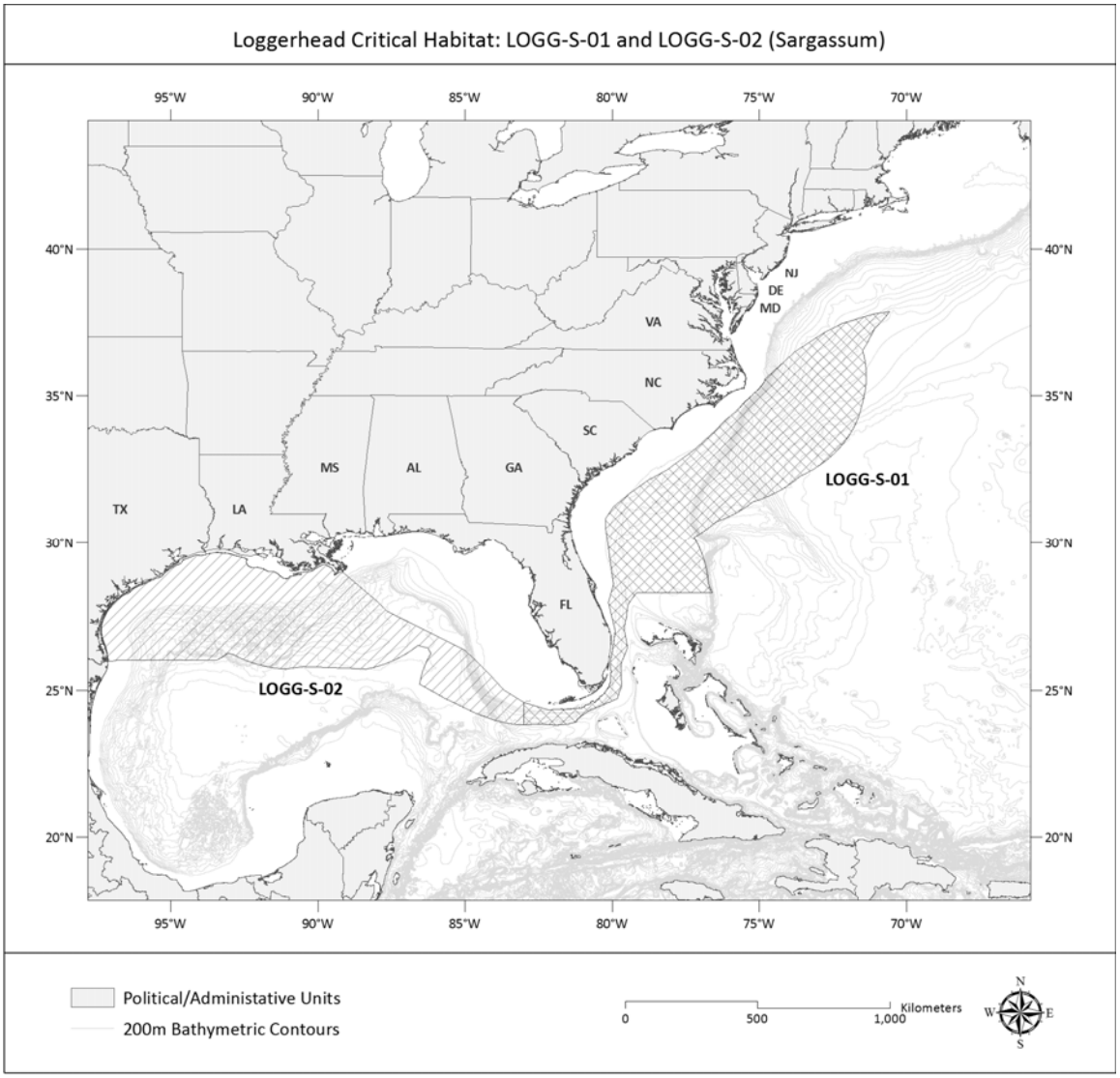

Loggerhead Critical Habitat: LOGG-N-21,22,23 (Nearshore Reproductive)
81°45'W
81°30'W
81°15'W
81°0'W
80°45'W
80°30'W
25°45'N
25°30'N
25°15'N
25°0'N
24°45'N
FL
LOGG-N-23
LOGG-N-22
LOGG-N-21
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S


Loggerhead Critical Habitat: LOGG-N-24,25,26,27,28 (Nearshore Reproductive)
82°45'W
82°30'W
82°15'W
82°0'W
81°45'W
81°30'W
26°30'N
26°15'N
26°0'N
25°45'N
25°30'N
LOGG-N-28
LOGG-N-27
LOGG-N-26
LOGG-N-25
LOGG-N-24
FL
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S


Loggerhead Critical Habitat: LOGG-N-29,30 (Nearshore Reproductive)
83°15'W
83°0'W
82°45'W
82°30'W
82°15'W
82°0'W
27°45'N
27°30'N
27°15'N
27°0'N
26°45'N
LOGG-N-30
LOGG-N-29
FL
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S


Loggerhead Critical Habitat: LOGG-N-31,32 (Nearshore Reproductive)
85°45'W
85°30'W
85°15'W
85°0'W
84°45'W
84°30'W
30°15'N
30°0'N
29°45'N
29°30'N
29°15'N
FL
LOGG-N-32
LOGG-N-31
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S


Loggerhead Critical Habitat: LOGG-N-33,34,35,36 (Nearshore Reproductive)
88°45'W
88°30'W
88°15'W
88°0'W
87°45'W
87°30'W
30°30'N
30°15'N
30°0'N
29°45'N
29°30'N
MS
AL
FL
LOGG-N-36
LOGG-N-35
LOGG-N-34
LOGG-N-33
Map Extent
Nearshore Reproductive Habitat
Breeding Habitat
Migratory Habitat
Winter Habitat
Political/Administrative Units
20m Bathymetric Contours
0
20
40
Kilometers
N
W
E
S



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