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Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Northwest Atlantic Ocean Distinct Population Segment of the Loggerhead Sea Turtle; Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

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[Docket No. FWS–R4–ES–2012–0103; 4500030114]

RIN 1018–AY71

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Northwest Atlantic Ocean Distinct Population Segment of the Loggerhead Sea Turtle

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, designate specific areas in the terrestrial environment of the U.S. Atlantic and Gulf of Mexico coasts as critical habitat for the Northwest Atlantic Ocean distinct population segment of the loggerhead sea turtle (*Caretta caretta*) under the Endangered Species Act of 1973, as amended. In total, approximately 1,102 kilometers (685 miles) fall within the boundaries of the critical habitat designation.

DATES: This rule is effective on August 11, 2014.

ADDRESSES: This final rule and the associated final economic analysis are available on the Internet at *http://www.regulations.gov* and *http://www.fws.gov/northflorida.* Comments and materials we received, as well as supporting documentation we used in preparing this rule, are available for public inspection at *http://www.regulations.gov.* All of the comments, materials, and documentation that we considered in this rulemaking are available by appointment, during normal business hours at: U.S. Fish and Wildlife Service, North Florida Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

The coordinates, plot points, or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at *http://www.fws.gov/northflorida,* at *http://www.regulations.gov* at Docket No. FWS–R4–ES–2012–0103, and at the North Florida Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we developed for this critical habitat designation will also be available at the Fish and Wildlife Service Web site and Field Office listed above, and may also be included in the preamble of this rule and at *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: For general information about this rule, and information about the final designation in northeastern Florida, contact Jay B. Herrington, Field Supervisor, U.S. Fish and Wildlife Service, North Florida Ecological Services Office, 7915 Baymeadows Way, Suite 200, Jacksonville, FL 32256; telephone 904–731–3336; facsimile 904–731–3045. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

For information about the final designation in Alabama, contact Bill Pearson, Field Supervisor, U.S. Fish and Wildlife Service, Alabama Ecological Services Field Office, 1208 Main Street, Daphne, AL 36526; telephone 251–441–5181; facsimile 251–441–6222.

For information about the final designation in southern Florida, contact Craig Aubrey, Field Supervisor, U.S. Fish and Wildlife Service, South Florida Ecological Services Field Office, 1339 20th Street, Vero Beach, FL 32960; telephone 772–469–4309; facsimile 772–562–4288.

For information about the final designation in northwestern Florida, contact Catherine Philips, Acting Field Supervisor, U.S. Fish and Wildlife Service, Panama City Ecological Services Field Office, 1601 Balboa Avenue, Panama City, FL 32405; telephone 850–769–0552; facsimile 850–763–2177.

For information about the final designation in Georgia, contact Don Imm, Field Supervisor, U.S. Fish and Wildlife Service, Coastal Georgia Ecological Services Field Office, 4980 Wildlife Drive NE., Townsend, GA 31331; telephone 912–832–8739; facsimile 912–832–8744.

For information about the final designation in Mississippi, contact Stephen Ricks, Field Supervisor, U.S. Fish and Wildlife Service, Mississippi Ecological Services Field Office, 6578 Dogwood View Parkway, Suite A, Jackson, MS 39123; telephone 601–965–4900; facsimile 601–965–4340.

For information about the final designation in North Carolina, contact Pete Benjamin, Field Supervisor, U.S. Fish and Wildlife Service, Raleigh Ecological Services Field Office, Post Office Box 33726, Raleigh, NC 33726; telephone 919–856–4520; facsimile 919–856–4556.

For information about the final designation in South Carolina, contact Thomas McCoy, Acting Field Supervisor, U.S. Fish and Wildlife Service, South Carolina Ecological Services Field Office, 176 Croghan Spur Road, Suite 200, Charleston, SC 29407; telephone 843–727–4707; facsimile 843–727–4218.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Endangered Species Act (Act), when we determine that a species is endangered or threatened, we are required to designate critical habitat, to the maximum extent prudent and determinable. Designations of critical habitat can only be completed by issuing a rule. The U.S. Fish and Wildlife Service (USFWS or Service) and the National Marine Fisheries Service (NMFS) listed the Northwest Atlantic Ocean distinct population segment (DPS) of the loggerhead sea turtle as threatened on September 22, 2011 (76 FR 58868). The USFWS and NMFS share jurisdiction under the Act for the protection and conservation of sea turtles, including the loggerhead. USFWS has jurisdiction over sea turtles on the land; NMFS has jurisdiction over sea turtles in the water.

This rule consists of: A final rule designating areas in the terrestrial environment as critical habitat for the Northwest Atlantic Ocean DPS of the loggerhead sea turtle. NMFS will be designating areas in the marine environment as critical habitat for the DPS and, consistent with their distinct authority with respect to such areas, will designate such areas in a separate rulemaking. In this rule, ''critical habitat'' refers to the areas we are designating in the DPS's terrestrial environment unless otherwise specified.

The areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for the Northwest Atlantic Ocean DPS of the loggerhead sea turtle. We are designating:

- In total, approximately 1,102 kilometers (km) (685 miles (mi)) of loggerhead sea turtle nesting beaches as critical habitat in the States of North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi. These beaches account for 45 percent of an estimated 2,464 km (1,531 mi) of coastal beach shoreline and approximately 84 percent of the documented nesting (numbers of nests) within these six States. The critical habitat is located in Brunswick, Carteret, New Hanover, Onslow, and Pender Counties, North Carolina; Beaufort, Charleston, Colleton, and Georgetown Counties, South Carolina; Camden, Chatham, Liberty, and

McIntosh Counties, Georgia; Bay, Brevard, Broward, Charlotte, Collier, Duval, Escambia, Flagler, Franklin, Gulf, Indian River, Lee, Manatee, Martin, Monroe, Palm Beach, Sarasota, St. Johns, St. Lucie, and Volusia Counties, Florida; Baldwin County, Alabama; and Jackson County, Mississippi.

• We are exempting the following Department of Defense (DOD) installations from critical habitat designation because their integrated natural resources management plans (INRMPs) incorporate measures that provide a benefit for the loggerhead sea turtle: Marine Corps Base Camp Lejeune (Onslow Beach), North Carolina, and Cape Canaveral Air Force Station, Patrick Air Force Base, and Eglin Air Force Base (Cape San Blas), Florida.

• Under section 4(b)(2) of the Act, we are excluding from critical habitat designation areas in St. Johns, Volusia, and Indian River Counties, Florida, that are covered under a habitat conservation plan (HCP), because the Secretary finds that the benefits of excluding these areas outweigh the benefits of including them in the critical habitat designation.

• We are not excluding any additional areas from critical habitat based on economic, national security, or other relevant impacts.

We have prepared an economic analysis of the designation of critical habitat. In order to consider economic impacts under 4(b)(2) of the Act, we prepared an economic analysis of the critical habitat designations and related factors. We announced the availability of the draft economic analysis (DEA) in the **Federal Register** on July 18, 2013 (78 FR 42921), and sought comments from the public. We have incorporated the comments and have completed the final economic analysis (FEA) concurrently with this final determination.

Peer review and public comment. We sought comments from four independent specialists to ensure that our designation is based on scientifically sound data and analyses. We requested opinions from these four knowledgeable individuals on our technical assumptions, analysis, and whether or not we had used the best available information. We received responses from three of the peer reviewers. These peer reviewers concurred with our methods and conclusions, and provided additional information, clarifications and suggestions to improve this final rule. Information we received from peer review is incorporated in this final designation. We also considered all comments and information received from the public during the two comment periods and three public hearings.

Previous Federal Actions

Please refer to the final rule revising the loggerhead sea turtle's listing from a single worldwide threatened species to nine DPSs, published in the **Federal Register** on September 22, 2011 (76 FR 58868), for a detailed description of previous Federal actions concerning this species and protection under the Act.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the Northwest Atlantic Ocean DPS of the loggerhead sea turtle during two comment periods. The first comment period opened with the publication of the proposed rule on March 25, 2013 (78 FR 17999), and closed on May 24, 2013. The second comment period, during which we requested comments on the proposed critical habitat designation and associated draft economic analysis (DEA), opened on July 18, 2013 (78 FR 42921), and closed on September 16, 2013. We held three public hearings in August 2013: Wilmington, North Carolina; Morehead City, North Carolina; and Charleston, South Carolina. We also contacted appropriate Federal, State, county, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and the DEA during these comment periods.

During the first comment period, we received 19,969 comment letters addressing the proposed critical habitat designation. The majority of these comments were form letters and letters with multiple signatures. During the second comment period, we received 2,206 comment letters addressing the proposed critical habitat designation, the DEA, or both. The majority of these comments were also form letters and letters with multiple signatures. Comments on the proposed critical habitat rule were also submitted to NMFS during the comment period for its proposed designation of critical habitat in the marine environment for the Northwest Atlantic Ocean DPS. During the three public hearings held on August 6, 7, and 8, 2013, 47 individuals or organizations made comments on the proposed designation or DEA. Comments received were grouped into general issues specifically relating to the proposed designation. These and other substantive information are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinion from four knowledgeable individuals with scientific expertise that included familiarity with the loggerhead sea turtle and its terrestrial habitat, biological needs, and threats. We received responses from three of the peer reviewers.

We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding the proposed designation. The peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions to improve this final critical habitat rule. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

(1) *Comment:* One peer reviewer commented on the justification for our proposed exemption of military installations and exclusion of areas with existing habitat conservation plans (HCPs), emphasizing the importance of all areas to the recovery of the species.

Our Response: The USFWS acknowledges that all nesting beaches support the conservation and recovery of the species. All areas including military installations and areas with existing HCPs were evaluated according to the selection criteria. Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) was amended in 2004 through the National Defense Authorization Act of 2004 (Pub. L. 108–136) to provide that: ''The Secretary shall not designate as critical habitat any lands or other geographic 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 plan provides a benefit to the species for which critical habitat is proposed for designation.''

The USFWS analyzed the INRMPs developed by military installations located within the range of the proposed critical habitat designation for the loggerhead sea turtle to determine if they would meet the exemption criteria under section 4(a)(3) of the Act. Marine Corps Base Camp Lejeune, Cape Canaveral Air Force Station, Patrick Air Force Base, and Eglin Air Force Base are DOD lands with completed INRMPs that provide benefits to the loggerhead sea

turtle. Accordingly, we are exempting those areas from the designation.

Regarding areas with existing HCPs, per section 4(b)(2) of the Act the Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute, as well as the legislative history is clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor. The USFWS conducted this analysis on the areas with existing HCPs and did decide to exclude three areas covered by HCPs. We provide additional details later in this final rule (see Exclusions section).

(2) *Comment:* One peer reviewer commented on the availability of recent study results, ongoing work, and information on loggerhead sea turtles.

Our Response: The final rule has been updated as appropriate throughout the document with the new information.

(3) *Comment:* One peer reviewer commented on the difficulty to assess the analysis and assumptions without the specific datasets available in the proposed rule.

Our Response: As stated in the proposed rule, all supporting documentation, such as the nesting densities used in the critical habitat selection process, were available during the open comment periods for the proposed rule and are currently available for public inspection on *http://www.regulations.gov,* or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, North Florida Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

General Comments Provided by Multiple Commenters

(4) *Comment:* A number of Federal and State agencies, local municipalities, and several other commenters expressed concern about the economic impacts of the critical habitat designation.

Our Response: As described in Section 2.3.2 of the FEA, it is unlikely that the critical habitat designation will result in additional management efforts resulting from future section 7 consultations with the USFWS. Nesting loggerhead turtles, their nests, eggs, and hatchlings, as well as any of their nesting habitat not designated as critical habitat, are still protected under the Act regardless of whether or not critical habitat is designated. They receive protection via section 7 where they may be the subject of conservation actions and regulatory protection, ensuring Federal agency actions do not jeopardize their continued existence, and via section 9, which prohibits ''take'' of individuals, including take caused by actions that affect the DPS' habitat. Take can only be authorized through the processes provided in sections 7 and 10 of the Act, and their implementing regulations. In the FEA, we considered whether additional or different conservation measures would be needed to avoid destruction or adverse modification of critical habitat above and beyond those measures already needed to avoid jeopardizing the continued existence of the species, and found this to be unlikely. As a result, the quantified direct incremental impacts of the designation are expected to be limited to additional administrative costs to the USFWS, Federal agencies, and third parties of considering critical habitat as part of future section 7 consultations. These costs are borne by the USFWS, the Federal action agency, and the third-party participants (generally the project proponents), including State and local governments and private parties. In the areas proposed as critical habitat designation, these costs were estimated to total approximately $1,200,000 over the next 10 years ($160,000 annualized).

In addition, the FEA acknowledges that, in some cases, critical habitat may generate indirect impacts including costs associated with project delay due to third-party litigation against the USFWS or the Federal action agency and the increased length of time it will take for the USFWS to review projects. Forecasting the likelihood of third-party litigation and potential length of associated project delays is considered too speculative to be quantified in the FEA. However, delays attributable to the additional time to consider critical habitat as part of future section 7 consultations, if any, would most likely be minor. This is because potential impacts to critical habitat are considered at the same time as impacts to the species.

(5) *Comment:* A number of commenters expressed concern that areas outside of the critical habitat designation will receive less protection.

Our Response: A critical habitat designation does not signal that habitat outside the designated area is unimportant or may not support the conservation of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, may continue to be the subject of conservation actions implemented under section 7(a)(1) of the Act. Turtles in those areas are subject to the regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and section 9 of the Act's prohibitions on taking any individual of the species, including take caused by actions that affect habitat. Take can be authorized only through the processes provided in sections 7 and 10 of the Act, and their implementing regulations.

Federal Agency Comments

(6) *Comment:* The National Aeronautics and Space Administration (NASA) commented that the proposed rule does not provide additional protection to loggerheads within the limits of the Kennedy Space Center's (KSC) coastline and that KSC meets the exemption criteria since NASA implements comprehensive conservation and habitat management plans that incorporate measures that provide a benefit for the conservation of the loggerheads.

Our Response: Unlike DOD lands with approved INRMPs, there is no categorical exemption under the Act for areas with other types of habitat management plans.

(7) *Comment:* The U.S. Army Corps of Engineers (USACE) expressed concern that the critical habitat designation will financially impact congressionally authorized projects and associated dredging activities for ports, navigation channels, and coastal storm damage reduction projects. Their concern extends to increased timeframes for consultations.

Our Response: As described in section 2.3.2 of the FEA, it is unlikely that the critical habitat designation will result in additional management efforts resulting from future section 7 consultations with the USFWS. The USFWS considered whether additional or different conservation measures would be needed to avoid destruction or adverse modification of critical habitat above and beyond those measures needed to avoid jeopardizing the continued existence of the species, and found this to be unlikely. As outlined in our response to Comment (4), designation of critical habitat delays attributable to the additional time to consider critical habitat as part of future section 7 consultations, if any, would most likely be minor. Also, see our response to Comment (4), and the Economic Impacts portion of this rule, below, for a

discussion of indirect impacts associated with critical habitat designation.

(8) *Comment:* The USACE expressed concern that if operation and maintenance dredging projects were determined to adversely modify critical habitat, it could result in substantial economic consequences. The USACE believes that these projects should be identified as ''manmade structures'' and excluded from critical habitat designation. The USACE's responsibility is to maintain safe and adequate configurations and depths for commercial and recreational navigation, national defense, safety and refuge, and national economic development. ''Excluding'' these congressionally authorized projects will enable USACE to fulfill is responsibilities efficiently and effectively.

Our Response: We considered the economic impact, national security impact, and any other relevant impact of designating as critical habitat areas with projects that occur within operation and maintenance areas. In evaluating whether any such areas should be excluded due to economic impacts, we concluded that no change in economic activity levels or the management of economic activities, including dredging projects, is expected to result from the critical habitat designation. A key conclusion of the analysis is that the listing of the DPS may lead to additional conservation efforts that would not have been required otherwise. However, as outlined in our response to Comment (4), designation of critical habitat is not anticipated to generate additional conservation measures for the DPS beyond those generated by the species' listing. Section 7 consultation is required in occupied habitat with or without a critical habitat designation. Most of the forecast costs reflect additional administrative effort as part of future section 7 consultations in order to consider the potential for activities to result in adverse modification of critical habitat. That having been said, we acknowledge it is unlikely additional conservation measures beyond those identified to avoid jeopardy for the DPS would be required to avoid adverse modification.

State Agency Comments

Section 4(i) of the Act states: ''the Secretary shall submit to the State agency a written justification for his failure to adopt regulations consistent with the agency's comments or petition.'' The designation of critical habitat for the DPS includes beaches in the States of Alabama, Florida, Georgia, Mississippi, North Carolina, and South Carolina. Comments from the States of North Carolina, South Carolina, Georgia, Florida, and Mississippi regarding the proposal to designate critical habitat for the loggerhead sea turtle are addressed below.

(9) *Comment:* A number of States, State agencies, and municipalities believe that USFWS should undergo a consistency determination under the Coastal Zone Management Act (CZMA; 16 U.S.C. 1451 *et seq.*) for the proposed designation of critical habitat in each State that has a CZMA program.

Our Response: The USFWS has determined that the designation of critical habitat does not require a consistency review under CZMA. Federal agencies are responsible for ensuring that consistency review under CZMA is completed as needed for each action they fund, authorize, or carry out. The designation of critical habitat is not a ''Federal agency activity'' as defined in the CZMA implementing regulations at 15 CFR 930.31(a), but rather an establishment of Federal agency responsibility related to the conservation of federally protected endangered or threatened species. Thus, the designation is not an agency activity itself, but results in a requirement that Federal agencies ensure that any action they fund, authorize, or carry out is not likely to result in the destruction or adverse modification of designated critical habitat of any endangered or threatened species. Therefore, while we understand the commenters' position, the Service has determined that consistency review is not needed.

(10) *Comment:* The North Carolina Department of Environment and Natural Resources (NCDNER) disagrees with the USFWS' assessment that ''designation of critical habitat in areas currently occupied by the loggerhead sea turtle may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have little incremental impact on State and local governments and their activities.'' Similarly, while the North Carolina Wildlife Resources Commission (NCWRC) understands there is large uncertainty regarding ''special management considerations'' or additional protections that may ensue from the critical habitat designation, it expresses concern that such management considerations or protections may have far-reaching consequences that could reduce or restrict the effectiveness of the robust conservation measures already in place and may affect the public's ability to access and use existing public trust resources, including beaches and waterways. These agencies, as well as several other commenters, believe the USFWS should clarify the potential range of additional management efforts, regulatory reviews, and/or operational conditions that may be placed upon those activities listed as ''threats'' to designated critical habitats.

Our Response: Section 7(a)(2) of the Act and its implementing regulations at 50 CFR part 402 require Federal agencies to consult with the USFWS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Only projects that have a Federal nexus (e.g., projects that are funded, authorized, or carried out by Federal agencies) are subject to this requirement under section 7 consultation. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private land and does not require implementation of restoration, recovery, or enhancement measures by non-Federal parties. Where the States, local communities, or a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7 would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the non-Federal party is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

We identified 12 categories of threats that may require special management considerations or protection in the proposed critical habitat units. Most, if not all, of these threats already undergo special management considerations by Federal action agencies and have done so since the loggerhead sea turtle was initially listed in 1978. There are a number of options for management efforts determined to be necessary and will be considered on a unit by unit basis. Operational conditions can be incorporated into a project description or permit conditions to avoid or minimize these threats. However, the determination of which measure or combination of measures will depend on the site conditions; nature of the proposed action; duration and magnitude of potential impacts from the project; conservation measures already in place; and other site- and action-specific considerations. If additional

measures are determined to be necessary, they will be considered in order to minimize the impacts to the listed DPS and the nesting beach. Critical habitat will not, as noted in our proposed designation, change the consultation process (see also response to Comment (4)), nor would it likely make it more difficult to move a project forward within an area designated as critical habitat, or conversely make it easier to do so on nesting beaches outside such a designation.

We do not expect the designation of critical habitat to result in changes to how the conservation efforts are currently implemented. Our proposal to designate critical habitat did not reflect an assessment that current nesting beach sea turtle conservation efforts are insufficient. Quite the opposite is true. Our focus is on those locations with the greatest nesting densities and, therefore, highest conservation value to loggerhead recovery and conservation. Most of the beaches proposed for designation have active sea turtle conservation efforts by Federal, State, local governments; private conservation organizations; and individuals within coastal communities.

(11) *Comment:* The NCDNER and North Carolina Coastal Resources Commission (NCCRC) recommend that the USFWS prepare a comprehensive economic analysis of the potential impacts to coastal communities and stakeholders as a result of the additional management efforts the designation may require.

Our Response: The Service's focus on the incremental impacts of the critical habitat rule is consistent with the U.S. Office of Management and Budget's (OMB's) guidelines for best practices concerning the method of conducting an economic analysis of Federal regulations. As described in section 2.1 of the FEA, OMB guidelines direct Federal agencies to measure the costs of a regulatory action against a baseline, which it defines as the ''best assessment of the way the world would look absent the proposed action.'' The baseline utilized in the FEA is the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat *absent* the designation of critical habitat. The baseline includes protections afforded the species under the Act, as well as under other Federal, State, and local laws and guidelines.

In recognition of the divergent opinions of the courts and to address the Presidential memorandum dated February 28, 2012, the Service promulgated final regulations specifying that the impact analysis of critical habitat designations should focus on incremental effects (78 FR 53058; August 28, 2013). This regulation now codifies the process of impact analysis for proposed critical habitat by completing an ''incremental analysis.'' This method of determining the probable impacts of the designation seeks to identify and focus solely on the impacts over and above those resulting from existing protections.

Accordingly, the FEA employs ''without critical habitat'' (baseline) and ''with critical habitat'' (incremental) scenarios. The analysis qualitatively describes how baseline conservation efforts for the DPS may be implemented across the proposed designation, and, where possible, provides examples of the potential magnitude of costs of these baseline conservation efforts (Chapter 3). The FEA focuses, however, on the incremental analysis, describing and monetizing the incremental impacts due specifically to the designation of critical habitat for the DPS (Chapter 4). Sections 2.2 and 2.3 of the FEA describe in detail how the analysis defines and identifies incremental effects of the proposed designation.

The incremental approach employed by the Service in its analyses of proposed critical habitat designations does not necessarily limit impacts to administrative costs of consultation. In some cases designation of critical habitat does result in new project modifications that need to be implemented to avoid possible adverse modification of the habitat. The costs of these project modifications would then be counted in the incremental analysis, regardless of who incurs the cost. In the case of the DPS, the entire proposed critical habitat is occupied by the species, and therefore any project modifications will be required even absent critical habitat (i.e., in the baseline) to avoid possibly jeopardizing the species' existence (see response to Comment (4)).

(12) *Comment:* The NCDNER and NCCRC believe the USFWS should provide additional information on the data utilized for the proposed designations in North Carolina.

Our Response: Supporting documentation we used in preparing the proposed and final rules, as well as comments and materials we received during the two public comments periods, is available for public inspection on *http://www.regulations.gov,* or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, North Florida Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

(13) *Comment:* The South Carolina Department of Parks, Recreation, and Tourism recommends language used in the proposed rule be refined to address all ambiguities and more clearly specify and define permissible and non-permissible activities in order to avoid unnecessary legal disputes. Specifically, in the sections pertaining to *Special Management Considerations or Protection,* the language is often ambiguous or vague, leaving it open to interpretation. For example, the language used for activities listed as primary threats, especially coastal development and beach renourishment, needs to be more clearly specified in terms of activity definitions and circumstances in order to prevent any party from using this rule change to unnecessarily impede non-threatening activities through legal action. These types of delays can ultimately drive up costs for ongoing beach preservation efforts and negatively impact local communities and their economies. In addition, in the aftermath of a severe tropical storm or hurricane, this language may be used to prevent rebuilding previously existing structures on public beaches such as Edisto Beach, effectively shutting off the beach for public use. Similarly, in the section regarding ''Human Presence,'' while the majority of this section pertains to human presence at night, the statement referring to human foot traffic may also be interpreted to mean that protecting these habitats necessitates the removal of all human presence, regardless of time.

Our Response: The USFWS has revised the language in this final rule to clarify the discussion and description of *Special Management Considerations or Protection* and threats to critical habitat.

(14) *Comment:* South Carolina Department of Natural Resources (SCDNR) notes an apparent lack of clarity as to what critical habitat designation means. The agency is uncertain of the actual impact to properties titled to the State of South Carolina and would like further clarification as to what changes would occur if such designation is finalized and accepted.

Our Response: See our response to Comment (10), above.

(15) *Comment:* The Mississippi Development Authority commented that the reasoning for critical units along the shoreline of Mississippi was not apparent as there are far fewer nests compared to the southeast coast of Florida. They questioned the

significance of the two Mississippi units to the conservation of the species.

Our Response: We understand that the beaches in Mississippi have lower nesting densities than in some of the other parts of the DPS's nesting range. The beaches that met the critical habitat criteria not only had the highest nesting densities within each of the four recovery units, but also represented a good spatial distribution that will help ensure the protection of genetic diversity, and collectively provide a good representation of total nesting. The distribution of designated critical habitat will conserve the habitat of this DPS by:

- Maintaining their existing nesting distribution;
- Allowing for movement between beach areas depending on habitat availability (response to changing nature of coastal beach habitat) and supporting genetic interchange;
- Allowing for an increase in the size of each recovery unit to a level where the threats of genetic, demographic, and normal environmental uncertainties are diminished; and
- Maintaining their ability to withstand local or unit level environmental fluctuations or catastrophes.

(16) *Comment:* The Florida Fish and Wildlife Conservation Commission (FWC) commented that to provide more regulatory certainty, it would be helpful if the USFWS would provide details on what standards will be used to determine if a project will result in adverse modification. Some Florida stakeholders have expressed concern regarding the uncertainty of how this designation affects the section 7 review and approval process. To that end, FWC requests additional details on how the USFWS' section 7 consultation process will differ in areas that are designated as critical habitat as compared to those areas that are not designated. The FWC believes the USFWS should consider the effects of the designation of critical habitat on the State's ability to restore and maintain sandy beaches and maintain functioning inlets.

Our Response: Federal action agencies, in coordination with the USFWS, will assess each project during the section 7 consultation process to determine whether the project may adversely modify the designated critical habitat (see Effects of Critical Habitat Designation). These determinations generally are project specific and dependent on the conservation measures incorporated in the project design. For some projects, such as sand placement and groin and jetty repair and replacement, the USFWS has determined that the terms and conditions incorporated in the Florida Statewide Programmatic Sand Placement Biological Opinion for the DPS and other listed species would also ensure that sand placement projects, including emergency response, would not adversely modify critical habitat. See also our response to Comments (4) and (10).

(17) *Comment:* The FWC recommends further coordination between the USFWS and the Florida Department of Environmental Protection (FDEP) to avoid unintended consequences of the proposed critical habitat designation and existing State rules. In particular, current Florida law allows for the installation of coastal armoring protecting beachfront dwellings and infrastructure at risk to high frequency storms. However, the FDEP, through Florida Administrative code rule 62B–41.0055, prohibits coastal armoring in any location that is federally designated as critical habitat for sea turtles. As such, if the proposed critical habitat is established, the State may need to consider revising this rule.

Our Response: The USFWS is aware of the State regulation and is willing to work with the FDEP to provide any additional information needed regarding impacts to loggerhead sea turtles. If the State of Florida rescinds the regulation, the USFWS will also work with any Federal agency that may fund, construct, or authorize a coastal armoring project and to determine the need to undergo section 7 consultation.

Public Comments

General

(18) *Comment:* Several commenters, many from municipalities within proposed critical habitat units, requested that the USFWS extend the comment period to allow sufficient time to provide comments that balance the environmental and economic effects of the proposed rule.

Our Response: After the close of the initial comment period, the USFWS reopened the comment period for an additional 60 days on July 18, 2013 (78 FR 42921), with the announcement of the availability of the DEA of the proposed rule. We also held three public hearings to accept comments following announcement and reopening of the comment period.

(19) *Comment:* The USFWS should make its final determination of loggerhead critical habitat on nesting beaches in conjunction with the NMFS designation in the marine environment. There is concern that the independent actions of the agencies may result in inconsistent designations that do not reflect the importance of the connection between the marine and terrestrial environments.

Our Response: Although the proposed rules for critical habitat in the terrestrial and marine environments were not published at the same time, the USFWS and NMFS have been coordinating our efforts and sharing information throughout the rulemaking process. The agencies will continue to do so, and it is anticipated that the final rules for critical habitat in both the terrestrial and marine environments will be published, and become effective, simultaneously.

(20) *Comment:* USFWS' failure to prepare an environmental impact statement (EIS) in connection with designating critical habitat is a violation of the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*), as designation of critical habitat significantly affects the quality of the human environment.

Our Response: It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the NEPA in connection with designating critical habitat under the Act. See the Required Determinations section of the rule below for more about USFWS's position.

(21) *Comment:* The USFWS should provide a detailed description of additional regulatory requirements associated with the planning, implementation, and maintenance of shoreline and inlet projects within the critical habitat area designation.

Our Response: The USFWS does not anticipate any additional regulatory requirements associated for any inlet or shoreline projects within the critical habitat units over and above those that would be required for the listed DPS (see our response to Comment (4)).

(22) *Comment:* The USFWS should provide a complete assessment of existing sea turtle management efforts by local, State, and Federal jurisdictions (including the USACE) affected by the proposed critical habitat designation area.

Our Response: Within each critical habitat unit description, the USFWS identifies conservation or management plans that benefit the loggerhead sea turtle. We also identify specific sea turtle management efforts conducted on public lands as identified in the Federal, State and local management plans within that critical habitat unit. If a Federal agency is conducting, funding, or authorizing a project in the unit, we will, during section 7 consultation, include in the biological opinion terms

and conditions as appropriate to minimize the impacts of the project.

(23) *Comment:* The USFWS should conduct an analysis as to whether assumptions used in the Statewide Programmatic Biological Opinion (SPBO) covering the state of Florida, including the reasonable and prudent measures, are truly satisfactory to avoid adverse modification of critical habitat.

Our Response: The USFWS used the most updated information in the SPBO to minimize the impact of the sand placement projects on the loggerhead sea turtle and other listed species. Our responsibility for analysis of impacts includes the nesting beach. Since the listed sea turtle species must use the nesting beach for laying their nests, incubating their eggs, and the emergence and movement of hatchlings from the nest to the ocean, the terms and conditions in our SPBO also address minimizing impacts to the nesting beach. As the beaches designated as critical habitat are all nesting beaches, these terms and conditions will also minimize impacts to critical habitat.

Economic Impacts

(24) *Comment:* The Town of Edisto Beach, South Carolina, requests that the USFWS withdraw the rule or eliminate the prohibitions due to significant adverse economic effects.

Our Response: With regard to the commenter's reference to ''prohibitions,'' we clarify that the 12 activities described in the rule as primary threats do not equate to prohibitions of the continued and future implementation of such activities. These primary threats are categories of activities that may impact the habitat and may require special management considerations or protection. However, this rule designating critical habitat does not dictate what those special management or protection measures will be. Rather, such measures will be considered project specific and will depend on the measures already in place or incorporated into proposed projects, and the potential impacts of a proposed Federal action (or an action that is funded or permitted by a Federal agency) to the critical habitat. We have revised the language in the *Special Management Considerations or Protection* section of this final rule to clarify this.

In addition, the DEA did not indicate that there would be significant economic effects from the proposed designation (see our response to Comment (4)).

(25) *Comment:* There are economic impacts to creating loggerhead habitat in the Gulf of Mexico shoreline of Florida. With the regional biological opinion for hopper dredging in the Gulf, communities and the USACE are able to dredge and restore beaches in Florida during the summer months. There is a prohibition of summer dredging elsewhere (in order to protect turtles). If critical habitat is designated, it is not clear if summer construction will be permitted to continue. Thus greater competition for dredges during the winter will occur and result in an increase in prices for shore protection efforts.

Our Response: The regional biological opinion, which was prepared by NMFS to cover the offshore (marine) dredging portion of beach nourishment projects, includes terms and conditions intended to minimize impacts to sea turtles and other listed species in the Gulf of Mexico. Additionally, the USFWS' SPBO covers the onshore (terrestrial) portion of beach nourishment and also includes measures to minimize impacts of the sand placement on the nesting beach on sea turtles and other listed species. Neither set of terms and conditions is expected to change as a result of critical habitat designation because, due to the presence of the listed species, the required terms and conditions are expected to also avoid adverse modification of critical habitat.

Exclusions

(26) *Comment:* The USFWS should minimize exclusions from critical habitat. Although economic impacts must be considered, the ultimate designation decision must be based on the biological and physical needs of the species and not economics. The commenter encourages the USFWS to fully consider the economic benefits of loggerhead critical habitat designation, including the tourism benefits of sea turtle habitat protection.

Our Response: We are required by section 4(b)(2) of the Act to take into account national security, economic, and other relevant impacts of critical habitat designation. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

The primary goal of this critical habitat designation for the Northwest Atlantic Ocean DPS of the loggerhead sea turtle is to support its long-term conservation and recovery. Conservation and recovery of the DPS may result in benefits, including use benefits (wildlife-viewing), non-use benefits (existence values), and ecosystem service benefits (e.g., water quality improvements and enhanced habitat conditions for other species). In this rule, the economic analysis did evaluate such benefits of the proposed critical habitat designation but was unable to monetize their value. Since we do not anticipate that critical habitat designation will change the level or types of conservation efforts undertaken over and above those efforts already required for the listed species, we have no information on the incremental benefits that may be realized. Absent information on the incremental change in loggerhead population or recovery potential associated, we are unable to monetize associated incremental use and non-use benefits.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan. The exclusions we identified in the proposed critical habitat rule were based on the presence of HCPs. When we evaluate the existence of a conservation or management plan when considering the benefits of exclusion, we consider a variety of factors, including, but not limited to, whether the plan is finalized; how it provides for the conservation of the essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

(27) *Comment:* A number of commenters believe that the USFWS should not exclude six of the proposed units (numbered in the proposed rule as LOGG–T–FL–01, LOGG–T–FL–02, LOGG–T–FL–03, LOGG–T–FL–04, LOGG–T–FL–05, and LOGG–T–FL–10 in St. Johns, Volusia, and Indian River Counties, Florida) pursuant to section 4(b)(2) of the Act (16 U.S.C. 1533(b)(2)). The proposed rule identified these units

as being considered for exclusion based on the rationale that they are covered by HCPs (78 FR 18000; March 25, 2013). Two commenters believe that although the HCPs are commendable, case law does not support this basis for exclusion (e.g., *Cape Hatteras Access Pres. Alliance* v. *U.S. Dep't of Interior,* 731 F. Supp. 2d 15, 28 (D.D.C. 2010), quoting *Natural Res. Def. Council,* 113 F.3d at 1127: ''. . . the [Act] does not authorize 'nondesignation of habitat when designation would be merely less beneficial to the species than another type of protection' '). Mandatory consultation for Federal actions is a valuable benefit for the species. Additionally, HCPs expire over time and are vulnerable to cut-backs. Many commenters believe that protections in the areas covered by HCPs are inadequate. For example, the St. Johns County HCP only covers beach driving; it does not include or protect against all the possible dangerous activities that occur on these beaches.

Commenters further state that unlike DOD lands with approved INRMPs, there is no categorical exemption under the Act for areas with HCPs and there is no indication that the Secretary similarly has determined in writing that such a plan provides a benefit to the species for which critical habitat is proposed for designation. Because these plans can change over time, and assuming they meet the necessary biological criteria, all such areas should be included in the designation of critical habitat.

Our Response: Using information collected during the public comment periods, as well as the HCP's annual reports and information already in our files, we evaluated whether these or other lands in the proposed critical habitat were appropriate for exclusion from this final designation pursuant to section 4(b)(2) of the Act. We evaluated whether the benefits of excluding the particular area outweigh the benefits of their inclusion, based on the ''other relevant factor'' provisions of section 4(b)(2) of the Act.

We find that the St. Johns, Volusia, and Indian River Counties' HCPs meet the above criteria for exclusion. Therefore, we are excluding non-Federal lands covered by these HCPs in proposed Units LOGG–T–FL–01, LOGG–T–FL–02, LOGG–T–FL–03, LOGG–T–FL–04, LOGG–T–FL–05, and LOGG–T–FL–10 because those HCPs adequately provides for the long-term conservation of the loggerhead and the Secretary has determined that the benefits of excluding these areas outweigh the benefits of including them in critical habitat. (For further information, see Exclusions, below.)

(28) *Comment:* Indian River County should be included in the designation of critical habitat, including currently unoccupied habitat, because a portion of the Archie Carr National Wildlife Refuge occurs in the County. According to NMFS' Web site (*http://www.nmfs.noaa.gov/pr/species/turtles/loggerhead.htm*), this refuge provides habitat for 25 percent of nesting loggerheads in the United States.

Our Response: As discussed above (see our response to Comment (27)), non-Federal lands in Indian River County are covered by a county-wide HCP and are being excluded from critical habitat. However, a portion of Archie Carr National Wildlife Refuge, which is located in Indian River County but not within the HCP, is included in the critical habitat (Units LOGG–T–FL–07 and LOGG–T–FL–08).

Recommendations for Expansion of Critical Habitat Designation

(29) *Comment:* The USFWS must expand its proposal to include all areas containing the primary constituent elements that are essential to the conservation of the species. The USFWS's methodology of selecting the top 25 percent nesting density beaches and those adjacent to them does not appear to designate all areas occupied by the species on which the biological features essential to the conservation of the species are present. The USFWS must explain how its selection of more limited areas satisfies this legal requirement and provides for the conservation and recovery of the species.

Our Response: Section 3(5)(C) of the Act states that ''[e]xcept in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the . . . species.'' Further, the USFWS is not required to designate all areas on which physical or biological features supporting the species are found. An area occupied by the species at the time of listing is eligible for designation of critical habitat if it contains ''physical and biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection'' (section 3(5)(A)(i) of the Act).

All terrestrial units considered for designation as critical habitat are currently occupied by the loggerhead sea turtle and occur within the species' geographical range. They contain the physical and biological features essential to the conservation of the species and may require special management considerations or protection, and they contain the primary constituent elements sufficient to support the terrestrial life-history processes of the species sufficient for the conservation of the population. Of these beaches, the ones we designated are those that have the highest nesting densities within each of the four recovery units, have a good spatial distribution that will help ensure the protection of genetic diversity, and collectively provide a good representation of total nesting. The beaches adjacent to the primary high-density nesting beaches also 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. Thus, the amount and distribution of critical habitat we are designating for terrestrial habitat will conserve recovery units of this DPS as described in our response to Comment (15).

(30) *Comment:* The USFWS should consider designation of areas that would provide for resilience to the threat of climate change, especially sea level rise and increased temperatures. The USFWS should consider sea level rise and its effects on the loggerhead sea turtle. While accounting for the level of sea rise is a complex task, there is a broad consensus in the scientific community that sea level rise is imminent. This will pose a significant threat to the beaches the loggerhead sea turtles need for continuation of the species.

Our Response: As the comment acknowledges, specific forecasts related to climate change are difficult. Furthermore, habitat is dynamic, and nesting beaches may accrete and erode over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not support the conservation of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, may continue to be the subject of conservation actions, regulatory protections, and prohibitions on taking of the species, including taking caused by actions that affect habitat. The USFWS acknowledges that we cannot fully address the significant, long-term threat of climate change to

loggerhead sea turtles. However, we can determine how we respond to the threat of climate change by providing protection to the known nesting sites of the turtle. We can also identify measures to protect nesting turtles and their habitat from the actions (e.g., coastal armoring, sand placement) undertaken to respond to climate change that may potentially impact the DPS. As more specific forecasts become available in the future, a revision of critical habitat may be required to more effectively provide for the conservation of the species. At this time, however, such forecasts are unavailable. For more information on our assessment of climate change, see the *Climate Change* discussion within the of the *Special Management Considerations or Protection* section of this rule.

(31) *Comment:* Broward County Natural Resource Planning and Management Division and several other commenters believe that all or portions of Broward County should be considered for inclusion in the designation of critical habitat. Large areas of sea turtle nesting habitat exist in the County, particularly in the Fort Lauderdale, Dania Beach, North Hollywood Beach, and Hallandale areas. There is considerable nesting activity for the beaches between Hillsboro Inlet and Port Everglades. With a few exceptions (e.g., Port Everglades), the coastline has the appropriate physical and biological features as well as the primary threats requiring management. For example, in 2012, a volunteer organization in the County documented 20,000 disoriented hatchlings.

Commenters believe that Broward County should be listed as critical habitat because Florida has the most nesting habitat in the world for loggerhead sea turtles, which makes this area extremely important. Furthermore, beach nourishment is allowed to continue through May, which is both mating and nesting season for this species. Due to over-development of the coastal areas, the dunes have been removed, causing more beach erosion. Lastly, designation of critical habitat will help facilitate quicker compliance with the lighting laws and will ensure all future lights are up to code; critical habitat designation will help bring the County under one universal lighting code, which will help with enforcement.

Our Response: The USFWS acknowledges the importance of the beaches in Broward County, including Fort Lauderdale, Dania Beach, North Hollywood Beach, and Hallandale Beach. However, only Unit LOGG–T–FL–14—Boca Raton Inlet-Hillsboro Inlet in Palm Beach and Broward Counties met the selection criteria (see our responses to Comments (15) and (29), above), with a nesting density greater than 83 nests per kilometer. The adjacent beach selected to serve as an expansion area for this unit is Unit LOGG–T–FL–13—Boyton Inlet-Boca Raton Inlet in Palm Beach County. Other nesting beaches in Broward County did not meet the critical habitat selection criteria because the nesting density was not high enough. However, loggerhead sea turtle nesting along these beaches will continue to be protected, as the DPS is listed as threatened under the Act and Federal agencies are required to consult with the USFWS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species.

(32) *Comment:* The USFWS should consider beaches from Doctor's Pass to Gordon Pass and Marco Island in Collier County, Florida, and the eastern end of Sanibel Island in Lee County, Florida, for inclusion in critical habitat. While these beaches are not the same nesting density as other beaches proposed for designation, they are currently occupied and do appear to contain the physical and biological features and PCEs. They have suitable nesting habitat that has relatively unimpeded access (PCE 1), appropriate sands to allow for nest building (PCE 2), and, when existing sea turtle protection ordinances are observed, sufficient darkness (PCE 3). Additionally, these beaches have supported considerable nesting and would support the USFWS's goal of designating beaches for resiliency and redundancy.

Our Response: The USFWS acknowledges the importance of the beaches in Lee and Collier Counties. However, only Unit LOGG–T–FL–28—Keewaydin Island and Sea Oat Island from Gordon Pass to Big Marco Pass in Collier County met the selection criteria (see our responses to Comments (15) and (29) above) with a nesting density greater than 14.2 nests per km. The adjacent beach selected to serve as an expansion area for this unit is Unit LOGG–T–FL–27—Clam Pass to Doctors Pass in Collier County. Other nesting beaches in Lee and Collier Counties, such as the east end of Sanibel Island and Marco Island, did not meet the critical habitat selection criteria because the nesting density was not high enough. However, the loggerhead sea turtle nesting along these beaches will continue to be protected, as the DPS is listed as threatened under the Act and consultation between Federal action agencies and the USFWS is still required.

(33) *Comment:* Additional areas should be designated as critical habitat for Georgia. Specifically, the commenter recommends inclusion of Little St. Simons and Jekyll islands in critical habitat.

Our Response: These beaches (Little St. Simons and Jekyll islands) did not meet the critical habitat selection criteria because the nesting density was not high enough (greater than 11.34 nests per km) or the island was not adjacent to a high density nesting beach. The beaches that are being designated as critical habitat represent over 80 percent of loggerhead sea turtle nesting in Georgia based on nest monitoring data from 2006 to 2011 provided by the State of Georgia.

(34) *Comment:* A few comments encourage the USFWS to expand the designation areas in North Carolina and include more habitat in the designation. One comment suggests that the USFWS considers other factors as well as those described in the proposed rule, such as those listed as PCEs (e.g., unimpeded near-shore access located above mean high water mark, suitable sand, and suitable nesting beach habitat). Alternatively, the USFWS could broaden the habitat by selecting the top 50 percent of high-density areas instead of adding beaches based on adjacency. The commenter also recommends that additional areas be designated as critical habitat for South Carolina. Specifically, the commenter recommends inclusion of the following beaches and islands: Bay Point, Hilton Head, North, Pritchards, Bull, and Hunting.

Similarly, other comments recommend the inclusion of Cape Hatteras, Cape Lookout, Figure 8 Island, Ocean Isle, and Sunset Beach, North Carolina. They maintain that focusing on areas of greatest nest density per kilometer of beach ignores larger areas such as Cape Hatteras and Cape Lookout National Seashores, which have the highest total number of nests per beach in North Carolina.

Another comment asked that areas to the north of Bogue Banks, North Carolina, be designated, as nesting is anticipated to increase in the north both due to warming and range expansion expected with an increasing population.

Our Response: The USFWS acknowledges the importance of all loggerhead sea turtle nesting beaches. The recommended beaches did not meet the critical habitat selection criteria either because the nesting density was not high enough (greater than 2.38 nests per kilometers in North Carolina; greater than 13.97 nests per kilometer in South

Carolina) or the island was not adjacent to a high density nesting beach. The selected high density beaches and adjacent beaches represent over 75 and 96 percent of loggerhead nesting in North Carolina and South Carolina, respectively, based on data from 2006–2011. Loggerhead nests will continue to be protected along beaches that are not designated as critical habitat because the DPS is listed as threatened under the Act (see our responses to Comments (15) and (29), above).

(35) *Comment:* It is important that the USFWS consider the benefits of designating critical habitat in Louisiana and Texas despite the current low number of nests because this designation requires agencies to ensure that their actions are ''not likely to jeopardize the continued existence of [the loggerhead sea turtle] . . . or result in the destruction or adverse modification of habitat of [the loggerhead sea turtle].'' If proactive measures are not taken to save the habitat of this species in Louisiana and Texas, the number of nests and turtles in these States may dwindle, causing further damage to this species.

Another commenter asked that Chesapeake Bay and Delaware Bay be included in the final rule as critical habitat because they are specific regions within the geographical area occupied by loggerhead sea turtles that are essential to conservation and require special management consideration.

Our Response: The USFWS agrees that nesting in the northern and western extent of the nesting range of the DPS is important to the conservation and recovery of the species. Louisiana, Texas, Virginia, and Delaware are not included in the designation based on the very low number of nests known to be laid in these States (less than 10 annually in each State from 2002 to 2011). However, protective measures are in place to protect the loggerhead sea turtle in these States because the species is listed under the Act. Federal agencies are already required to consult with the USFWS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of loggerhead sea turtles.

Recommendations of Areas To Exclude From Critical Habitat Designation

(36) *Comment:* The Town of Holden Beach, North Carolina, contends that the specific areas proposed to be designated as critical habitat for the loggerhead sea turtle in North Carolina are arbitrary and capricious because (1) North Carolina's beaches' nesting density is low compared to South Carolina, Georgia, and Florida, and (2) the USFWS did not provide any basis that North Carolina nesting beaches are required to provide genetic diversity. Other commenters contend that loggerhead sea turtle nesting density data do not support designation of critical habitat for any of North Carolina's beaches, and particularly not Bogue Banks, compared to South Carolina, Georgia, and Florida. Further, loggerhead sea turtle nesting in North Carolina represents a small fraction (approximately 1 percent) of not only the nesting by loggerhead sea turtles in the Northwest Atlantic Ocean DPS, but also within the Northern Recovery Unit (approximately 13 percent) of the Northwest Atlantic Ocean DPS.

Our Response: We understand that the beaches in North Carolina have lower nesting densities than in some of the other parts of the species' nesting range. However, for recovery of the DPS, it is important to conserve:

- Beaches that have the highest nesting densities, by State or region within a State;
- Beaches that have a good spatial distribution to ensure protection of genetic diversity;
- Beaches that collectively provide a good representation of total nesting; and
- Beaches adjacent to the high-density nesting beaches that can serve as expansion areas.

North Carolina falls within the Northern Recovery Unit. Within this Recovery Unit, we divided beach nesting densities into quartiles (four equal groups) by State and selected beaches that were within the upper quartile for designation as critical habitat. The reason we determined high nesting density beaches within each State (rather than the entire Northern Recovery Unit) was that it allowed for the inclusion of beaches near the northern extent of the range (North Carolina) that would otherwise be considered low density when compared with beaches in Georgia and South Carolina. This ensures good spatial distribution.

(37) *Comment:* The Town of Edisto Beach, South Carolina, requests to be excluded from the designation of critical habitat because the beach supports an average of only 80 nests a year and the typical sand on the beach is medium-sized and coarse and does not fit the USFWS's description of ''deep, clean, relatively loose sand above high-tide level.''

Our Response: The beaches within the Town of Edisto Beach, South Carolina, meet the criteria for critical habitat described in the *Criteria Used to Identify Critical Habitat* section of the proposed and final rule, and specifically, the Northern Recovery Unit (i.e., unit supports expansion of nesting from an adjacent unit that has high-density nesting of loggerhead sea turtles in South Carolina, was occupied at the time of listing and is currently occupied, and contains all the physical or biological features and primary constituent elements). We note that ''sand'' in the proposed rule is defined as ''. . . material predominately composed of carbonate, quartz, or similar material with a particle size distribution ranging between 0.062 mm and 4.76 mm (0.002 in and 0.187 in) (Wentworth and ASTM classification systems).'' Medium and coarse sand meets this definition. We have no other information to support excluding the beaches within the Town of Edisto Beach under section 4(b)(2) of the Act.

(38) *Comment:* The Village of Bald Head Island, North Carolina, requests that the USFWS exclude Bald Head Island from critical habitat designation under section 4(b)(2) of the Act. The commenter explains that although not recognized in the proposed rule, Bald Head Island has a well-established and respected sea turtle protection program and as such believes the Island should be excluded, as similar consideration is being given to St. Johns, Volusia, and Indian River Counties, Florida, based on established habitat conservation plans. As one of NMFS's ''index beaches,'' Bald Head Island is nationally recognized for its sea turtle nesting activity, and for the Bald Head Island Conservancy's efforts to protect this resource. At this point, no additional benefit would be gained by the designation, and additional regulatory burdens may hinder local efforts.

Our Response: The beaches of Bald Head Island meet the criteria for critical habitat described in the *Criteria Used to Identify Critical Habitat* section of the proposed and final rule, and specifically, the Northern Recovery Unit (i.e., the unit has high-density nesting by loggerhead sea turtles in North Carolina, was occupied at the time of listing and is currently occupied, and contains all the physical or biological features and primary constituent elements). While Bald Head Island, like many of the beaches in this designation, has in place active sea turtle conservation efforts by Federal, State, local governments; private conservation organizations; and individuals, we have no knowledge of any plans that commit to dedicated funding of such efforts or that this program provides comprehensive sea turtle protection. Example programs could include beachfront lighting regulations,

managed beach access, beach and dune habitat protection and restoration programs, or coastal development regulations. We recognize the efforts on Bald Head Island, but are not excluding the area, because the benefits of designating critical habitat outweigh the benefits of exclusion.

(39) *Comment:* The Escambia County Community and Environmental Department believes the areas jurisdictional to Escambia County on Perdido Key, Florida, within the Northern Gulf of Mexico Recovery Unit, should be considered for exclusion under section 4(b)(2) of the Act due to a pending programmatic HCP consistent with other communities such as St. Johns, Volusia, and Indian River Counties.

Our Response: The beaches of Escambia County meet the criteria for critical habitat. Although an area may be excluded if it is covered by an HCP, we must assess each HCP to determine whether the implementation of the conservation efforts benefits loggerhead sea turtles. Since this HCP has not yet been approved by the USFWS, or implemented in accordance with a permit, we are not excluding units within the proposed HCP coverage area.

Best Available Information and Methods

(40) *Comment:* The USFWS must include the most current nesting data through 2012.

Our Response: The Northwest Atlantic Ocean loggerhead sea turtle DPS was listed in 2011 (76 FR 58868). We have 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 throughout the DPS' nesting range. Consistent with this definition, in the Northern Recovery Unit, Peninsular Florida Recovery Unit, and Northern Gulf of Mexico Recovery Unit (Florida and Alabama), we used loggerhead nests counts from 2006–2011 to calculate mean nest density for each beach and select the high density nesting beaches within each recovery unit. However, even though we did not rely on the 2012 nesting data in the proposed rule, we now find that they support the high density nesting beaches selected using the 2006–2011 mean nest density.

(41) *Comment:* The USFWS must incorporate any evidence about the impact of recent management changes, for example, the Cape Hatteras National Seashore Off-Road Vehicle Management Plan and Special Regulation, which was implemented in 2012.

Our Response: While the USFWS may use information from management plans in discussing special management or protection considerations, we did not propose any critical habitat units within the Cape Hatteras National Seashore (CHNS). Therefore, discussion of the management changes at CHNS was not necessary because the changes do not affect any of the units in the designation.

(42) *Comment:* One commenter concurred with the identification of the physical and biological features of critical habitat, the primary constituent elements of critical habitat, and the listed threats. However, the commenter believes the information cited is stale and sometimes cited references have been misinterpreted or their incorporation is misleading.

Our Response: The USFWS updated the final rule with additional literature we received during the comment period and peer review. The USFWS collaborated with State technical advisors on the nesting data analysis. The peer review of the proposed rule did not indicate any of the references we used were misinterpreted or are misleading.

(43) *Comment:* It seems awkward that the USFWS did not seek peer review before submitting the proposed rule for public comment. It is acknowledged that as a result, the final rule may differ significantly from what is proposed. The commenter asks whether the public will get a second chance to comment on the next version of a rule, especially if there are significant changes.

Our Response: The USFWS conferred with scientific experts, including State technical advisors, during the development of the proposed rule and used the best scientific information available. Moreover, as discussed above, the peer review comments did not reflect suggestions for major changes to the rule. All revisions based on information we received during the public comment period are outlined in this final rule and do not represent any significant changes from the proposed rule.

(44) *Comment:* The discussion of the effects of coastal structures is narrow and biased. The quoting of Kaufman and Pilkey (1979) demonstrates a narrow understanding of the use of coastal structures. While there are outfalls within the State of Florida, they are outdated facilities designed prior to our modern understanding of coastal biology and engineering. The outfalls are few and their impacts are insignificant to the health of the large-scale sea turtle nesting habitat. The FDEP and FWC utilize existing regulatory programs where possible to reduce the impact of existing outfalls. New outfalls are prohibited by rule (62b–33, Florida Administrative Code).

Our Response: The USFWS verified that the information cited in Kaufman and Pilkey (1979) reflected our current understanding of coastal systems. There are existing outfalls along the loggerhead sea turtle nesting beach that create localized erosion channels, prevent natural dune establishment, and wash out sea turtle nests. The USFWS agrees that the design of new outfalls minimize the localized erosion; however, this impact continues for existing outfalls with the outdated design and is considered an impact to sea turtle nests.

(45) *Comment:* The USFWS should provide a scientific basis for the argument that ''the presence of groins and jetties may . . . concentrate predatory fishes, resulting in higher probabilities of hatchling predation.'' While natural hard-bottom fishing piers and coastal structures may lead to higher concentrations of predatory fishes, there is little data (if any) that demonstrate that the concentration of predatory fishes leads to an increase in predation of recent hatchlings. With many of the beaches yielding low densities of hatchlings and coastal structures being sparse in Florida, the overlay of the probabilities of increased predation must be small or insignificant. Further, the concentration of predatory fishes by structures must indicate an abundant food source for them as sea turtle hatching occurs for just a short period of time throughout the year along any unit length of beach. For example, some Gulf of Mexico beaches may have nesting densities in the 10 nests per mile range, or 1 per 500 feet. With shore-perpendicular coastal structures being only approximately 50 feet, in effect, the number of nests near any structure is only 0.1 nests per structure. The 0.1 nest will hatch on one night providing food for the predatory fish for, at most, that one night. For the remainder of the year, the predatory fish must be eating something else besides sea turtle hatchlings.

Our Response: The USFWS has updated this rule to include additional citations to support the proposition that the concentration of predatory fish increases due to the presence of groins and jetties.

(46) *Comment:* Given that the critical habitat designation is based solely upon a numerical standard, such as nest density, it is imperative that the USFWS

publicly discloses the data as well as cutoff top quartile thresholds that it used to determine designated areas.

Our Response: Supporting documentation we used in preparing the proposed and final rules, as well as comments and materials we received during the two public comment periods, are available for public inspection on *http://www.regulations.gov,* or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, North Florida Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

(47) *Comment:* Critical habitat units as proposed for Lee County, Florida, are flawed. Portions of these proposed units, in their natural state, do not contain the physical and biological features essential to conservation. Specifically, in the absence of directed human activity in the form of dredge spoil placement and beach nourishment, they did not and would not contain a beach sufficient to support a successful marine turtle nest. This PCE is only present because of designed and constructed public works projects of the type listed in the proposed rule as potential threats to loggerhead sea turtle conservation. This is a fundamental inconsistency that must be corrected.

Our Response: The natural state of these beaches would consist of shoreline that does not contain any human-related development that would keep the dynamic coastal process from occurring (erosion and accretion). However, when the shoreline has been fixed in place because of human development, the natural dynamics of the shoreline are unable to occur. Therefore, beach nourishment and similar projects take the place of the natural process. As indicated in previous responses to comments, we have acknowledged the results of these activities as a physical and biological feature. As stated in both the proposed rule and this final rule: ''we identify natural coastal processes or activities that mimic these natural processes to be a physical or biological feature for this species. It is important that loggerhead nesting beaches are allowed to respond naturally to coastal dynamic processes of erosion and accretion or mimic these processes.'' Accordingly, the units in Lee County meet the selection criteria and contain one or more of the PCEs.

(48) *Comment:* The USFWS should be more consistent in its use of 20-km segments to break up beach segments that are overly large in some areas for an accurate assessment of nesting densities.

Our Response: Beach segments were identified as barrier islands or mainland beaches separated by creeks, inlets, or sounds. For beach segments that were overly large in some area, such as the Florida Peninsular Recovery Unit (excluding the Florida Keys) and the Northern Gulf of Mexico Recovery Unit (except Mississippi), we used nest site fidelity information to break up these beaches into 20-km segments. Calculating nesting densities for overly large areas would have resulted in some high-density nesting beaches not being identified because they would be averaged in with adjacent lower density nesting beaches. Segmenting these larger areas ensured the high density nesting beaches were represented throughout the DPS' nesting range. See also the descriptions for each recovery unit in the Critical Habitat section of this rule for further explanation of the methodology used to identify beach segments within each recovery unit.

(49) *Comment:* Commenters expressed their concern on the method for selecting the entire 38.9-km shoreline of Bogue Banks in North Carolina as a critical habitat unit, because it is adjacent to a high-density nesting beach.

Our Response: Loggerhead sea turtles nest on dynamic ocean beaches that may be significantly degraded or lost through natural processes (erosion) or development. We designated beaches adjacent to the high-density nesting beaches as critical habitat to ensure the availability of nesting habitat if the high-density nesting beaches are temporarily or permanently lost. Loggerhead sea turtles are known to exhibit high site fidelity to individual nesting beaches. In a study in Georgia, 55 percent (12 of 22) of nesting females tracked during the inter-nesting period used a single island for nesting while 40 percent (9 of 22) used two islands (Scott 2006). Protecting individual beaches adjacent to high-density nesting beaches should provide sufficient habitat to accommodate nesting females whose primary nesting beach has been lost. We selected the adjacent beaches by designating one beach to the north and one beach to the south of each of the high-density beaches as critical habitat. See also our response to Comment (36).

Erosion Management and Sand Placement

(50) *Comment:* One commenter is concerned that this and other regulations do not make a distinction between erosion management structures that are harmful (e.g., ''hard forms'' such as seawalls, revetments, and groins) and those that are beneficial (e.g., erosion control structures such as breakwaters and some groin designs) to sea turtles. This is important because beneficial structures may not only facilitate habitat restoration efforts that might otherwise not be economically feasible due to high erosion rates in front of existing seawalls. It should also be considered that viable sand sources for beach nourishment are finite, and carefully designed erosion control structures reduce, and in some cases may eliminate, the need for future beach nourishment.

Our Response: For this rule, we are unable to make such distinctions because these projects may vary considerably with corresponding positive and negative effects. Most projects with the appropriate conservation measures incorporated minimize negative effects to nesting sea turtles and may provide overall benefits (e.g., maintenance of nesting habitat) if properly designed, installed, and maintained.

(51) *Comment:* One comment states that properly done and well-scrutinized beach nourishment should not pose major threats to the species, and, therefore, the critical habitat designation will not affect the nourishment efforts taken by coastal towns. By looking at the nesting density data in North Carolina, it can be observed that most of the designated high-density beaches have been nourished in the past years. With the exception of Bear Island (a State park), all other designated high-density islands have been heavily nourished in the past.

Our Response: The USFWS agrees that properly implemented, appropriate conservation measures incorporated in beach nourishment projects minimize impacts to loggerhead sea turtles and their habitat. As we have indicated in our response to Comment (4), we do not anticipate additional conservation measures over and above those already implemented for the listed DPS.

(52) *Comment:* The USFWS is urged to include beach restoration as an approved ''special management consideration.'' Climate change is causing sea levels to rise and the rate of sea level rise may accelerate over the next century due to increased levels of carbon dioxide, which will increase with global warming. Higher sea levels cause beaches to erode and retreat, threatening habitat that is currently suitable for nesting of loggerhead sea turtles. Beach restoration and periodic nourishment restores and maintains nesting habitat and remains the most effective form of ''special management considerations'' over the next 50 years for managing the impacts of climate change. If the new critical habitat areas

are designated and rules imposed in those areas inhibit the continuation of cost-effective beach nourishment programs, the net impacts to the loggerhead sea turtles and their nests would be negative given the current and future projections of climate change.

Our Response: Beach suitability depends mainly on four environmental factors (slope, temperature, moisture, and salinity). Both natural and human impacts to beaches affect their suitability for sea turtle nesting and egg incubation. For loggerhead sea turtle terrestrial habitat, special management considerations focus on reducing the threats to the suitability of the nesting beach. Human-altered beaches do have direct, indirect, and cumulative impacts to sea turtles and thus are not considered a ''special management consideration.'' However, the USFWS acknowledges that properly implemented appropriate conservation measures in beach nourishment projects minimize impacts to sea turtles.

(53) *Comment:* One commenter recommended that the USFWS consider the need for continued nourishment and structures as part of the community's efforts to protect critical habitat on Bald Head Island, North Carolina.

Our Response: The USFWS has considered and taken into account the beneficial effects of beach nourishment and other beach stabilization projects as provided in our identification of PCE 4, which is ''natural coastal processes or artificially created or maintained habitat mimicking natural conditions'' (see also response to Comment (47)).

(54) *Comment:* USFWS failed to use the best scientific data available. For example, in analyzing the potential impacts of beach sand placement activities, USFWS relied on publications from as long as 26 years ago. More recent studies analyzing beach placement activities are available, and USFWS failed to rely on these studies.

Our Response: For the final rule, we used the best and most current available data relevant to beach sand placement. We have defined the terrestrial portion of the geographical area occupied for the loggerhead sea turtle as those U.S. beaches 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 throughout the DPS' nesting range. See also our response to Comment (40).

Additionally, we received scientific references and literature from the peer reviewers and in comments from the public. Additions or updates to the rule using this information are summarized in the Summary of Changes From Proposed Rule section. The additional information did not change the critical habitat selection criteria or the units in the critical habitat designation.

(55) *Comment:* The USFWS should consider changes in North Carolina's political environment that may soon reduce or eliminate existing laws that safeguard the terrestrial ecosystem along the coast. For example, legislation has been proposed that would repeal long-standing restrictions on the construction of jetties and groins. If this bill becomes law, structures that impede the natural flow of sand and alter the migration of barrier islands—and that present physical barriers to nesting turtles—may become commonplace along the oceanfront.

Our Response: Federal agencies are required to consult with the USFWS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat (see our response to Comment (4)). Projects that have a Federal nexus (e.g., projects that are funded, authorized, or carried out by Federal agencies) are subject to this requirement under the consultation provisions of section 7 of the Act. This would include construction of groins and jetties, which must be permitted by the USACE under appropriate Federal laws regardless of State law. Moreover, even where critical habitat has not been designated, loggerhead sea turtle nesting along these beaches will continue to be protected, as the DPS is listed under the Act notwithstanding the presence or absence of protections under State law.

(56) *Comment:* Brevard County, Florida, and other commenters are concerned that the critical habitat designation may complicate or increase the cost of existing successful turtle-friendly coastal management projects or traditional use of the beach. The County believes that it could be confusing to list beach sand placement and recreational beach use as primary threats to the species, but also as a tool that defends against increased harm by other primary threats such as erosion and beach armoring. The County encourages USFWS to make clear and reinforce statements about beach nourishment and beach sand placement. They also believe that specific recreational activities should be addressed differently (i.e., beach cleaning and driving versus human foot traffic). Brevard County urges the USFWS to take all steps necessary to assure the critical habitat designation cannot be cited in a lawsuit to justify restrictions to traditional public use of the beach.

St. Lucie County, Florida, asks if special management considerations and protection will be consistently applied throughout a recovery unit even though there may be varying nesting densities and beach nourishment frequencies within that unit, or if the actual habitat conditions (i.e., specific nesting conditions) will drive the process.

Our Response: Only projects that have a Federal nexus (e.g., projects that are funded, authorized, or carried out by Federal agencies) are subject to the requirement for consultation under section 7 of the Act. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to restrict access to the beach. See also our response to Comment (10).

In the proposed rule, we identified 12 categories of threats that may require special management considerations or protection in the critical habitat units. Threats in each critical habitat unit differ, therefore the special management considerations and protections will vary.

Clarifications and Corrections

(57) *Comment:* The USFWS should clarify that while critical habitat does not include ''developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for the loggerhead sea turtle,'' it does include human-altered beaches that still contain the PCEs identified for successful nesting.

Our Response: The USFWS acknowledges that human-altered or engineered beaches may still contain the PCEs identifies for successful nesting. The final rule has been revised to include further explanation on human-altered beaches in the *Primary Constituent Elements for the Northwest Atlantic Ocean DPS of the Loggerhead Sea Turtle* section. See also our responses to Comments (50) and (51), above.

(58) *Comment:* It is not clear why the USFWS is not designating the critical habitat throughout the range of all global DPSs, especially the two DPSs (Northwest Atlantic and North Pacific) that can be found in the United States (terrestrial or aquatic).

Our Response: Critical habitat may only be designated in areas under U.S. jurisdiction per the regulations implementing the Act at 50 CFR 424.12(h). The USFWS has jurisdiction

over sea turtles on the land, and loggerhead sea turtles come on land only to nest; therefore, the only terrestrial habitat they use is for nesting. Because critical habitat can only be designated in areas under U.S. jurisdiction and because loggerhead sea turtle nesting in the United States occurs only within the Northwest Atlantic Ocean DPS, we are only designating specific areas in the terrestrial environment as critical habitat for this one DPS. Since no loggerhead nesting occurs within U.S. jurisdiction for the North Pacific Ocean DPS, no critical habitat has been proposed for that DPS in the terrestrial environment. Similarly, NMFS has jurisdiction over sea turtles in the water. On July 18, 2013 (78 FR 43006), NMFS published proposed critical habitat for the marine environment for the Northwest Atlantic Ocean DPS and reviewed potential areas within U.S. jurisdiction for critical habitat in the North Pacific Ocean loggerhead DPS (no areas met the definition of critical habitat in this DPS; therefore none was proposed); again because these are the only DPSs that occur in areas under U.S. jurisdiction.

(59) *Comment:* The USFWS needs to explain why critical habitat is not being designated for all recovery units of the Northwest Atlantic Ocean DPS. Contrary to the Executive Summary, which states ''[t]his is a proposed rule by the [USFWS] to designate specific areas in the terrestrial environment as critical habitat for the Northwest Atlantic Ocean [DPS] of the loggerhead sea turtle,'' the proposed designation does not include any within the range of the Caribbean recovery unit and evidently nothing within the Caribbean was considered.

Our Response: The Greater Caribbean Recovery Unit includes all nesting assemblages within the Greater Caribbean, which includes Puerto Rico and the U.S. Virgin Islands. No loggerhead sea turtle nesting has ever been documented in Puerto Rico (Diez 2012, pers. comm.). Only two loggerhead sea turtles have been documented as nesting in the U.S. Virgin Islands, both on Buck Island Reef National Monument off the north coast of St. Croix (Pollock *et al.* 2009, entire), where nesting has been documented since 2003. Therefore, although some loggerhead sea turtle nesting has been documented on beaches under U.S. jurisdiction within the Greater Caribbean Recovery Unit, we did not propose to designate any critical habitat in this unit due to the very low number of nests laid there.

(60) *Comment:* The Town of Holden Beach, North Carolina, and other commenters believes the USFWS should reassess its prudency determination pursuant to regulations implementing the Act (50 CFR 424.12(a)(1)). Holden Beach believes a determination of ''not prudent'' is appropriate because there are already adequate measures in place to ensure the survival and recovery of the loggerhead sea turtle and designation would adversely impact these successful programs resulting in loss of habitat and an increase in the degree of threat to the species. Other commenters are concerned that the critical habitat designation is not prudent because it would make it more difficult for local governments and others to conduct active coastal shore damage reduction projects and that existing successful conservation programs will be burdened with additional and unnecessary measures and will become more costly to implement.

Our Response: Our regulations (50 CFR 424.12(a)(1)) describe the conditions in which critical habitat could be determined to be ''not prudent;'' essentially, the designation of critical habitat is not prudent if the species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the threat, or because designation of critical habitat would not be beneficial to the species.

There is currently no identified imminent threat of take attributed to collection or vandalism of nesting beaches within the DPS, and identification and mapping of specific areas in the terrestrial environment as critical habitat is not expected to create or increase any such threat. On the other hand, potential benefits of designation include: (1) Focusing conservation activities on the most essential features and areas; (2) providing educational benefits to State or county governments or private entities; and (3) preventing people from causing inadvertent harm to the species and beaches with active nesting. Therefore, we found that designation of critical habitat is prudent for the Northwest Atlantic Ocean DPS of the loggerhead sea turtle.

The proposal to designate critical habitat did not reflect an assessment that current nesting beach sea turtle conservation efforts are insufficient. Most of the beaches proposed for designation have active sea turtle conservation efforts by Federal, State, local governments; private conservation organizations; and individuals within coastal communities. Most, if not all, beach projects already under go special management considerations by Federal action agencies and have since the species was listed. We do not expect the designation to result in changes to how the conservation efforts are currently implemented or project conservation measures (see our response to Comment (4)).

(61) *Comment:* Several commenters contend that the specific areas proposed to be designated as critical habitat for the loggerhead sea turtle do not contain features that, now or in the future, may require special management considerations or protection measures beyond those that are already in place. The USFWS failed to adequately consider existing regulations and programs that ensure that loggerhead sea turtle habitat is protected and maintained, and failed to analyze the impacts of designating critical habitat on the effectiveness of these successful programs as required by the Act.

Our Response: All of the beaches that we proposed for critical habitat designation contain the physical or biological features consisting of a beach that is:

- Capable of supporting a high density of nests or serving as an expansion area for beaches with a high density of nests and the beaches;
- Well distributed within each State or region within a State;
- Representative of total nesting; and
- Support natural coastal processes or activities that mimic these natural processes.

All of the beaches have one or more threats that may require special management considerations or protection measures. Further, the statement of ''beyond those that are already in place'' reflects an incorrect understanding of the Act. The proposal did not reflect an assessment that current nesting beach sea turtle conservation efforts are insufficient. Most of the beaches proposed for designation have active sea turtle conservation efforts by Federal, State, local governments; private conservation organizations; and individuals within coastal communities. Most, if not all, beach projects already under go special management considerations by Federal action agencies and have since the species was listed. We are designating as critical habitat those locations that met the selection criteria and, therefore, represent the highest conservation value to loggerhead sea turtle recovery and conservation.

(62) *Comment:* The location of the Intracoastal Waterway shown on the map of Units LOGG–T–FL–23, 24, 25, and 26 is inaccurate and should be

corrected for accuracy or removed from the map.

Our Response: We understand that the critical habitat as depicted on the background layer of the maps may not appear to align with the shoreline or other features such as the Intracoastal Waterway. The background layer shown in the rule is for display purposes only and may not accurately represent these features because of the dynamic coastal process and the inability of mapping data acquisition efforts to keep up with the changes. The data layers defining map units were created using Google Earth imagery, then refined using Bing imagery, and unit descriptions were then mapped using North America Lambert Conformal Conic coordinates; maps generated in this way do not provide a legible print in black and white as printed in the **Federal Register**. However, the coordinates, plot points, or both on which each map is based are available to the public at the USFWS's Internet site at *http://www.fws.gov/northflorida,* at *http://www.regulations.gov* at Docket No. FWS–R4–ES–2012–0103, and at the North Florida Ecological Services Office (see **ADDRESSES**).

Summary of Changes From Proposed Rule

The following changes have been made to the final rule from the proposed rule:

1. Based on comments from peer and public review, we have updated the information in the *Background, Physical or Biological Features,* and *Special Management Considerations or Protection* sections with updated information from recommended literature.

2. In response to concerns and confusion regarding beach stabilization projects, we have added a fourth PCE to the final rule: *Natural coastal processes or artificially created or maintained habitat mimicking natural conditions.*

3. In accordance with section 4(b)(2) of the Act, based on the information provided in the HCP annual reports, as well as additional public comments received and information in our files, we are excluding all or portions of proposed Units LOGG–T–FL–01, LOGG–T–FL–02, LOGG–T–FL–03, LOGG–T–FL–05, and LOGG–T–FL–10 in St. Johns, Volusia, and Indian River Counties, Florida, that are covered under those HCPs. (See Exclusions section below for more explanation).

4. We have made changes to maps, units, and the rule itself. In total, the final critical habitat designation has decreased from the proposed rule by 87.8 km (54.5 mi). The new unit descriptions are provided below in the Final Critical Habitat Designation section:

- For the units in Florida, the originally numbered Units LOGG–T–FL–01 to LOGG–T–FL–47 have been renumbered in the final rule as Units LOGG–T–FL–01 to LOGG–T–FL–45 by shifting up one to two numbers. This is due to the exclusion of the entire originally proposed Units LOGG–T–FL–02 and LOGG–T–FL–05 based on their inclusion in HCPs (see above). In addition, these exclusions resulted in a decrease from the proposed rule of 87.2 km (54.3 mi) of designated critical habitat for the DPS (see Table 2 in the Exclusions section).
- Based on information we received from the NPS regarding Garden Key in the LOGG–T–FL–34—Dry Tortugas, Monroe County, Florida, we revised the unit description and corresponding map to more accurately reflect the availability of nesting habitat for the DPS. This revision resulted in a 0.6 km (0.2 mi) decrease in the total length of the unit.

Background

It is our intent to discuss in this final rule only those topics directly relevant to the designation of critical habitat. Please refer to the final listing rule for the DPS published on September 22, 2011 (76 FR 58868), and proposed critical habitat designation for the DPS published March 25, 2013 (78 FR 18000), for a summary of the species and habitat information. Additional information on the associated draft economic analysis for the designation was published in the **Federal Register** on July 18, 2013 (78 FR 42921). For more information on the taxonomy, biology, and ecology of the loggerhead sea turtle, refer to the Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (*Caretta caretta*) (NMFS and USFWS 2008, entire), which is available from the North Florida Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated take.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure that, in consultation with USFWS or NMFS, any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they 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. For these areas, critical habitat designations identify, to the extent known using the best scientific

and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, HCPs, or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Physical or Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features (PBFs) that are essential to the conservation of the species and which may require special management considerations or protection. These 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, or rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historical, geographic, and ecological distributions of a species.

We derive the specific PBFs essential for the loggerhead sea turtle from studies of this species' habitat, ecology, and life history as described below. Additional information can be found in the final listing rule published in the **Federal Register** on September 22, 2011 (76 FR 58868), and the Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (*Caretta caretta*) (NMFS and USFWS 2008, entire).

Shaffer and Stein (2000, pp. 307–314) identify a methodology for conserving imperiled species known as the ''three Rs'': Representation, resiliency, and redundancy. Representation, or preserving some of everything, means conserving not just a species but its associated habitats. Resiliency and redundancy ensure there is enough of a species so it can survive into the future. Resiliency means ensuring that the habitat is adequate for a species and its representative components. Redundancy ensures an adequate number of sites and individuals. This methodology has been widely accepted as a reasonable conservation strategy (Tear *et al.* 2005, p. 841). In applying this strategy, we have determined that it is important to conserve:

(1) Beaches that have the highest nesting densities (representation);

(2) Beaches that have a good spatial distribution to ensure protection of genetic diversity (resiliency and redundancy);

(3) Beaches that collectively provide a good representation of total nesting (representation); and

(4) Beaches adjacent to the high density nesting beaches that can serve as expansion areas and provide sufficient habitat to accommodate and provide a rescue effect for nesting females whose primary nesting beach has been lost (resiliency and redundancy).

Therefore, we have determined that the following PBFs are essential for the loggerhead sea turtle.

PBF 1—Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

The production of the next generation of loggerhead sea turtles results from a synergism of the effects of the ecological conditions in the foraging area on the energetics of the female and of the beach environmental conditions on

development of the embryos. To be successful, reproduction must occur when environmental conditions support adult activity (e.g., sufficient quality and quantity of food in the foraging area, suitable beach structure for digging, nearby inter-nesting habitat) (Georges *et al.* 1993, p. 2). The environmental conditions of the nesting beach must favor embryonic development and survival (i.e., modest temperature fluctuation, low salinity, high humidity, well drained, well aerated) (Mortimer 1982, p. 49; Mortimer 1990, pp. 809, 811). Additionally, the hatchlings must emerge to onshore and offshore conditions that enhance their chances of survival (e.g., less than 100 percent depredation, appropriate offshore currents for dispersal) (Georges *et al.* 1993, p. 2).

Terrestrial nesting habitat is the supralittoral zone (area above the spring high tide line) of the beach where oviposition (egg laying), embryonic development, and hatching occur. Loggerheads nest on ocean beaches and occasionally on estuarine shorelines with suitable sand. For a beach to serve as nesting habitat, a nesting turtle must be able to access it. However, anthropogenic structures (e.g., groins, jetties, breakwaters), as well as natural features (e.g., offshore sand bars), can act as barriers or deterrents to adult females attempting to access a beach (Witherington *et al.* 2006, entire). Adult females approaching the nesting beach may encounter these structures and either crawl around them, abort nesting for that night, or move to another section of beach to nest. Nests are typically laid between the high tide line and the dune front (Routa 1968, p. 293; Witherington 1986, pp. 16, 27; Hailman and Elowson 1992, p. 5).

Wood and Bjorndal (2000, entire) evaluated four environmental factors (slope, temperature, moisture, and salinity) and found that slope had the greatest influence on loggerhead nest-site selection on a beach in Florida. Loggerheads appear to prefer relatively narrow, steeply sloped, coarse-grained beaches, although nearshore contours may also play a role in nesting beach site selection (Provancha and Ehrhart 1987, p. 42).

Nest sites typically have steeper slopes than other sites on the beach, and steeper slopes usually indicate an area of the beach with a higher elevation (Wood and Bjorndal 2000, p. 126). Wood and Bjorndal (2000, p. 126) speculated that a higher slope could be a signal to turtles that they have reached an elevation where there is an increased probability of hatching success of nests. This is related to the nests being laid high enough on the beach to be less susceptible to repeated and prolonged tidal inundation and erosion. Nests laid at lower beach elevations are subject to a greater risk of repeated and prolonged tidal inundation and erosion, which can cause mortality of incubating egg clutches (Foley *et al.* 2006, pp. 38–39). Regardless, loggerheads will use a variety of different nesting substrates and beach slopes for nesting. They will also scatter their nests over the beach, likely to ensure that at least some nest sites will be successful as ''placement of nests close to the sea increases the likelihood of inundation and egg loss to erosion whereas placement of nests farther inland increases the likelihood of desiccation, hatchling misorientation, and predation on nesting females, eggs, and hatchlings'' (Wood and Bjorndal 2000).

Loggerhead sea turtles spread their reproductive effort both temporally and spatially. Spatial clumping occurs because loggerheads concentrate their nesting to a few primary locations that are augmented by lower density, satellite sites. In addition, a few isolated, low-density sites are known (Miller *et al.* 2003, p. 126). Loggerheads show a high degree of nesting site fidelity (Miller *et al.* 2003, p. 127). Once an adult female has returned to the region where it hatched and selected a nesting beach, she will tend to re-nest in relatively close proximity (0–5 km (0–3 mi)) during successive nesting attempts within the same and subsequent nesting seasons, although a small percentage of turtles will utilize more distant nesting sites in the general area (Addison 1996, p. 76; Miller *et al.* 2003, pp. 127–128). On a regional level, in the southeastern U.S., nesting density can also be influenced by the distance to the Gulf Stream System (Putman *et al.* 2010, p. 4). Thus, a high-density nesting beach is the product of the distance from the Gulf Stream, site fidelity and nesting success. A spatiotemporal analysis of the Florida Index Nesting Beaches concluded that fine scale high and low density nesting zones were consistent over the 17-year time series. This suggests that nesting density distribution is a product of both nest site fidelity and specific beach attributes (Witherington *et al.* 2009, entire). A high-density nesting beach produces a large number of hatchlings that are recruited to the population resulting in a relatively higher number of females that will return to nest on those same beaches.

Sea turtles must have ''deep, clean, relatively loose sand above the high-tide level'' for successful nest construction (Hendrickson 1982, p. 54). Sand is classified as material predominately composed of carbonate, quartz, or similar material with a particle size distribution ranging between 0.062 mm and 4.76 mm (0.002 in and 0.187 in) (Wentworth and ASTM classification systems). Sea turtle eggs require a high-humidity substrate that allows for sufficient gas exchange for development (Mortimer 1990, p. 811; Miller 1997, pp. 67–68; Miller *et al.* 2003, pp. 129–130). Ackerman (1980, p. 575) found that the rate of growth and mortality of sea turtle embryos is related to respiratory gas exchange with embryonic growth slowing and mortality increasing in environments where gas exchange is reduced below naturally occurring levels.

Moisture conditions in the nest influence incubation period, hatching success, and hatchling size (McGehee 1990, pp. 254–257; Mortimer 1990, p. 811; Carthy *et al.* 2003, pp. 147–149). Laboratory experiments have shown that hatching success can be affected by unusually wet or dry hydric conditions (McGehee 1990, pp. 254–255). Proper moisture conditions are necessary for maximum hatching success (McGehee 1990, p. 251). In addition, water availability is known to influence the incubation environment of the embryos of turtles with flexible-shelled eggs by affecting nitrogen excretion (Packard *et al.* 1984, pp. 198–201), mobilization of calcium (Packard and Packard 1986, p. 404), mobilization of yolk nutrients (Packard *et al.* 1985, p. 571), and energy reserves in the yolk at hatching (Packard *et al.* 1988, p. 122).

Loggerhead nests incubate for variable periods of time depending on sand temperatures (Mrosovsky and Yntema 1980, p. 272). The length of the incubation period (commonly measured from the time of egg deposition to hatchling emergence) is inversely related to nest temperature, such that between 26.0 °C and 32.0 °C (78.8 °F and 89.6 °F), a change of 1 °C (33.8 °F) adds or subtracts approximately 5 days (Mrosovsky 1980, p. 531). The warmer the sand surrounding the egg chamber, the faster the embryos develop (Mrosovsky and Yntema 1980, p. 272).

Sand temperatures prevailing during the middle third of the incubation period also determine the gender of hatchling sea turtles (Mrosovsky and Yntema 1980, p. 276; Yntema and Mrosovsky 1982, pp. 1014–1015). The pivotal temperature (i.e., the incubation temperature that produces equal numbers of males and females) in loggerheads is approximately 29.0 °C (84.2 °F) (Limpus *et al.* 1983, p. 3; Mrosovsky 1988, pp. 664–666; Marcovaldi *et al.* 1997, pp. 758–759).

Incubation temperatures near the upper end of the tolerable range produce only female hatchlings while incubation temperatures near the lower end of the tolerable range produce only male hatchlings.

Loggerhead hatchlings pip (break through the egg shell) and escape from their eggs over a 1- to 3-day interval and move upward and out of the nest over a 2- to 4-day interval (Christens 1990, p. 400). The time from pipping to emergence ranges from 4 to 7 days with an average of 4.1 days (Godfrey and Mrosovsky 1997, p. 583). Hatchlings emerge from their nests en masse almost exclusively at night, likely using decreasing sand temperature as a cue (Hendrickson 1958, pp. 513–514; Mrosovsky 1968, entire; Witherington *et al.* 1990, pp. 1166–1167; Moran *et al.* 1999, p. 260). After an initial emergence, there may be secondary emergences on subsequent nights (Carr and Ogren 1960, p. 23; Witherington 1986, p. 36; Ernest and Martin 1993, pp. 10–11; Houghton and Hays 2001, p. 134).

Hatchlings use a progression of sea-finding orientation cues to guide their movement from the nest to the marine environments (Lohmann and Lohmann 2003, entire). Hatchlings first use light cues to find the ocean. On natural beaches without artificial lighting, ambient light from the open sky creates a relatively bright horizon compared to the dark silhouette of the dune and vegetation landward of the nest. This contrast guides the hatchlings to the ocean (Daniel and Smith 1947, pp. 414–415; Limpus 1971, p. 387; Salmon *et al.* 1992, pp. 72–75; Witherington and Martin 1996, pp. 5–12; Witherington 1997, pp. 311–319). After reaching the surf, hatchlings swim and are swept through the surf zone, after which wave orientation occurs in the nearshore area and later magnetic field orientation as they proceed further toward open water (Lohmann and Lohmann 2003, entire).

Both nesting and hatchling sea turtles are adversely affected by the presence of artificial lighting on or near the beach (Witherington and Martin 1996, pp. 2–5, 12–13). Artificial lighting deters adult female loggerheads from emerging from the ocean to nest, and loggerheads emerging onto a beach abort nesting attempts at a greater frequency in lighted areas (Witherington 1992, pp. 34–37). Because adult females rely on visual brightness cues to find their way back to the ocean after nesting, those turtles that nest on artificially lighted beaches may become disoriented by artificial lighting and have difficulty finding their way back to the ocean (Witherington 1992, p. 38). Hatchling sea turtles have a robust sea-finding behavior guided by visual cues (Mrosovsky and Carr 1967, pp. 228–230; Mrosovsky and Shettleworth 1968, pp. 214–218; Dickerson and Nelson 1989, entire; Witherington and Bjorndal 1991, pp. 146–148; Salmon *et al.* 1992, pp. 72–75; Witherington and Martin 1996, pp. 6–12; Lohmann *et al.* 1997, pp. 110–116; Lohmann and Lohmann 2003, pp. 45–47). Hatchlings unable to find the ocean, or delayed in reaching it, due to the presence of artificial beachfront lighting are likely to incur high mortality from dehydration, exhaustion, or predation (Carr and Ogren 1960, pp. 33–46; Ehrhart and Witherington 1987, pp. 97–98; Witherington and Martin 1996, pp. 12–13).

Since loggerheads nest on dynamic ocean beaches that may be significantly degraded or lost through natural processes (e.g., erosion) or human-related actions (e.g., development, armoring, lighting), the designation of currently occupied nesting beaches adjacent to the highest density nesting beaches as critical habitat will help ensure the availability of nesting habitat if the high-density nesting beaches are temporarily or permanently lost.

Therefore, based on the information above, we identify extra-tidal or dry sandy beaches from the mean high water (MHW) (see definition at *http://tidesandcurrents.noaa.gov/datum_options.html*) line to the toe of the secondary dune that are capable of supporting a high density of nests or serving as an expansion area for beaches with a high density of nests and well distributed within the four recovery units in which critical habitat is being designated and are representative of total nesting to be a PBF for the species.

PBF 2—Habitats Protected From Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

Sea turtle nesting habitat is part of the highly dynamic and continually shifting coastal system, which includes oceanfront beaches, barrier islands, and inlets. These geologically dynamic coastal regions are controlled by natural coastal processes or activities that mimic these natural processes, including littoral or longshore drift (the process by which sediments move along the shoreline), onshore and offshore sand transport (natural erosion or accretion cycle), and tides and storm surge. The integrity of the habitat components depends upon daily tidal events; these processes are associated with the formation and movement of barrier islands, inlets, and other coastal landforms throughout the landscape.

There has been considerable loss or degradation of such habitats by humans from development, armoring, sand placement, and other activities to prevent or forestall erosion or inundation from shifting shorelines, as well as coastal storms and sea level rise resulting from climate change. Coastal dynamic processes are anticipated to accelerate due to sea level rise and an increase in frequency and intensity of coastal storms as a result of climate change (Daniels *et al.* 1993, pp. 380–384; Fuentes *et al.* 2009, pp. 136–137; Poloczanska *et al.* 2009, pp. 160–161; Bender *et al.* 2010, p. 458).

Since sea turtles evolved in this dynamic system, they are dependent upon these ever-changing features for their continued survival and recovery. Sea turtles require nesting beaches where natural coastal processes or activities that mimic these natural processes will be able to continue well into the future to allow the formation of suitable beaches for nesting (Hawkes *et al.* 2009, pp. 139–140; Poloczanska *et al.* 2009, p. 169).

Coastal processes happen over a wide range of spatial and temporal scales. Wind, waves, tides, storms, and stream discharge are important driving forces in the coastal zone (Dingler 2005, p. 163). Thus, it is important that, where it can be allowed, the natural processes be maintained or any projects that address erosion or shoreline protection contain measures to reduce negative effects or are temporary in nature.

Therefore, based on the information above, we identify natural coastal processes or activities that mimic these natural processes to be a PBF for this species. It is important that loggerhead nesting beaches are allowed to respond naturally to coastal dynamic processes of erosion and accretion or mimic these processes.

Primary Constituent Elements for the Northwest Atlantic Ocean DPS of the Loggerhead Sea Turtle

Under the Act and its implementing regulations, we are required to identify the PBFs essential to the conservation of the loggerhead sea turtle in areas occupied at the time of listing, focusing on the features' primary constituent elements (PCEs). We consider PCEs to be those specific elements of the PBFs that provide for a species' life-history processes and are essential to the conservation of the species.

Based on our current knowledge of the PBFs and habitat characteristics required to sustain the species' life-history processes, we determine that the terrestrial PCEs specific to the DPS are the extra-tidal or dry sandy beaches

from the mean high-water line to the toe of the secondary dune, which are capable of supporting a high density of nests or serving as an expansion area for beaches with a high density of nests and that are well distributed within each State, or region within a State, and representative of total nesting, consisting of four components:

(1) PCE 1—*Suitable nesting beach habitat that has (a) relatively unimpeded nearshore access from the ocean to the beach for nesting females and from the beach to the ocean for both post-nesting females and hatchlings and (b) is located above mean high water to avoid being inundated frequently by high tides.*

(2) PCE 2—*Sand that (a) allows for suitable nest construction, (b) is suitable for facilitating gas diffusion conducive to embryo development, and (c) is able to develop and maintain temperatures and a moisture content conducive to embryo development.*

(3) PCE 3—*Suitable nesting beach habitat with sufficient darkness to ensure nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea.*

(4) PCE 4—*Natural coastal processes or artificially created or maintained habitat mimicking natural conditions.* This includes artificial habitat types that mimic the natural conditions described in PCEs 1 to 3 above for beach access, nest site selection, nest construction, egg deposition and incubation, and hatchling emergence and movement to the sea. Habitat modification and loss occurs with beach stabilization activities that prevent the natural transfer and erosion and accretion of sediments along the ocean shoreline. Beach stabilization efforts that may impact loggerhead nesting include beach nourishment, beach maintenance, sediment dredging and disposal, inlet channelization, and construction of jetties and other hard structures. However, when sand placement activities result in beach habitat that mimics the natural beach habitat conditions, impacts to sea turtle nesting habitat are minimized.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features essential to the conservation of the species and which may require special management considerations or protection.

For loggerhead sea turtle terrestrial habitat, the features essential to the conservation of this species may require special management considerations or protection to reduce the following threats, which we have grouped into 12 categories:

(1) Recreational beach use (beach cleaning, human presence (e.g., dog beach, special events, piers, and recreational beach equipment));

(2) Beach driving (essential and nonessential off-road vehicles, all-terrain vehicles, and recreational access and use);

(3) Predation (depredation of eggs and hatchlings by native and nonnative predators);

(4) Beach sand placement activities (beach nourishment, beach restoration, inlet sand bypassing, dredge material disposal, dune construction, emergency sand placement after natural disaster, berm construction, and dune and berm planting);

(5) In-water and shoreline alterations (artificial in-water and shoreline stabilization measures (e.g., in-water erosion control structures, such as groins, breakwaters, jetties), inlet relocation, inlet dredging, nearshore dredging, and dredging and deepening channels);

(6) Coastal development (residential and commercial development and associated activities including beach armoring (e.g., sea walls, geotextile tubes, rock revetments, sandbags, emergency temporary armoring); and activities associated with construction, repair, and maintenance of upland structures, stormwater outfalls, and piers);

(7) Lights on land or in the adjacent water, which can deter nesting and disorient hatchlings and nesting females, direct or indirect lighting visible from the nesting beach, including skyglow and bonfires, particularly artificial lighting that has an unshielded lamp and a short wave length (below 540 nm).

(8) Beach erosion (erosion due to aperiodic, short-term weather-related erosion events, such as atmospheric fronts, northeasters, tropical storms, and hurricanes);

(9) Climate change (includes sea level rise);

(10) Habitat obstructions (tree stumps, fallen trees, and other debris on the beach; nearshore sand bars; and ponding along beachfront seaward of dry beach);

(11) Human-caused disasters and response to natural and human-caused disasters (oil spills, oil spill response including beach cleaning and berm construction, and debris cleanup after natural disasters); and

(12) Military testing and training activities (troop presence, pyrotechnics and nighttime lighting, vehicles and amphibious watercraft usage on the beach, helicopter drops and extractions, live fire exercises, and placement and removal of objects on the beach).

The threats described above do not equate to prohibitions of the continued and future implementation of such activities. These primary threats are categories of activities that may impact the habitat and its physical or biological features, and may require special management considerations or protection. Such measures will be considered on a unit by unit basis and will be dependent on what measures are already in place and the potential impacts to the habitat by a proposed Federal action (or an action that is funded or permitted by a Federal agency).

Recreational Beach Use

Beach cleaning: There is increasing demand in the southeastern U.S., especially in Florida, for beach communities to carry out beach cleaning operations to improve the appearance of beaches for visitors and residents. Beach cleaning occurs on private beaches and on some municipal or county beaches that are used for nesting by loggerhead sea turtles. Beach cleaning activities effectively remove ''seaweed, fish, glass, syringes, plastic, cans, cigarettes, shells, stone, wood, and virtually any unwanted debris'' (H. Barber and Sons 2012, entire). This can include wrack material (organic material that is washed up onto the beach by surf, tides, and wind), the removal of which reduces the natural sand-trapping abilities of beaches and contributes to their destabilization. As beach cleaning vehicles and equipment move over the sand, sand is displaced downward, lowering the substrate. Although the amount of sand lost due to single sweeping actions may be small, it adds up considerably over a period of years (Neal *et al.* 2007, p. 219). In addition, since the beach cleaning vehicles and equipment also inhibit plant growth and open the area to wind erosion, the beach and dunes may become unstable. Beach cleaning ''can result in abnormally broad unvegetated zones that are inhospitable to dune formation or plant colonization, thereby enhancing the likelihood of erosion'' (Defeo *et al.* 2009, p. 4). This is also a concern because dunes and vegetation play an important role in minimizing the impacts of artificial beachfront lighting, which causes disorientation of sea turtle hatchlings and nesting turtles, by creating a barrier that prevents

residential and commercial business lighting from being visible on the beach.

Beach cleaning occurs in a few locations in South Carolina and Alabama, but the most extensive beach cleaning activities occur in Florida, particularly southern Florida. However, a FDEP permit, which includes conditions to protect sea turtles, is required. These permit conditions restrict the timing and nature of beach cleaning to ensure these activities avoid or minimize the potential for impacts to sea turtles and their nesting habitat.

Human presence: Human presence on the beach at night during the nesting season can reduce the quality of nesting habitat by deterring or disturbing nesting turtles and causing them to avoid otherwise suitable habitat. In addition, human foot traffic can make a beach less suitable for nesting and hatchling emergence by increasing sand compaction and creating obstacles to hatchlings attempting to reach the ocean (Hosier *et al.* 1981, p. 160).

Some beach communities, local governments, and State and Federal lands have management plans or agreements that include addressing human disturbance to minimize impacts to nesting and hatchling loggerhead sea turtles. Other beach communities and Federal, State, and local governments have addressed human disturbance and presence on the beach with generally successful ''Share the Beach'' educational campaigns. The educational message in the campaigns focuses on beach user behavior when encountering a turtle on the beach—enjoy the experience but do not disturb the turtle.

Recreational beach equipment: The use and storage of lounge chairs, cabanas, umbrellas, catamarans, and other types of recreational equipment on the beach at night can also make otherwise suitable nesting habitat unsuitable by hampering or deterring nesting by adult females and trapping or impeding hatchlings during their nest-to-sea migration. The documentation of non-nesting emergences (also referred to as false crawls) at these obstacles is becoming increasingly common as more recreational beach equipment is left on the beach at night. Sobel (2002, p. 311) describes nesting turtles being deterred by wooden lounge chairs that prevented access to the upper beach.

Some beach communities, local governments, and State and Federal lands have management plans, agreements, or ordinances that address recreational equipment on the beach to minimize impacts to nesting and hatchling loggerhead sea turtles. Other beach communities and Federal, State, and local governments address recreational beach equipment with generally successful ''Leave No Trace'' and ''Share the Beach'' educational campaigns. The educational message in the campaigns focuses on removing recreational equipment from the nesting beach each night during the nesting season.

Beach Driving

Beach driving has been found to reduce the quality of loggerhead nesting habitat in several ways. In the southeastern U.S., vehicle ruts on the beach have been found to prevent or impede hatchlings from reaching the ocean following emergence from the nest (Hosier *et al.* 1981, p. 160; Cox *et al.* 1994, p. 27; Hughes and Caine 1994, p. 237). Sand compaction by vehicles has been found to hinder nest construction and hatchling emergence from nests (Mann 1977, p. 96). Vehicle lights and vehicle movement on the beach after dark results in reduced habitat suitability, which can deter females from nesting and disorient hatchlings. If driving occurs at night, sea turtles could be run over and injured. Additionally, vehicle traffic on nesting beaches contributes to erosion, especially during high tides or on narrow beaches where driving is concentrated on the high beach and foredune.

Beach driving is prohibited on the majority of nesting beaches in the southeastern U.S. by law, regulation, management plan, or agreement. However, some vehicular driving is still allowed on private, local, State, and Federal beaches for recreation, commercial, or beach and natural resource management activities. In 1985, the Florida Legislature severely restricted vehicular driving on Florida's beaches, except for cleanup, repair, or public safety. Five counties were exempted from the legislation and are allowed to continue vehicular access on coastal beaches due to the availability of less than 50 percent of its peak user demand for off-beach parking. The counties affected by this exception are Volusia, St. Johns, Gulf, Nassau, and Flagler Counties, as well as Walton County, which allows limited vehicular access on beaches for boat launching. Volusia and St. Johns Counties developed HCPs that minimize and mitigate the impacts of County-regulated driving and USFWS issued incidental take permits under section 10(a)(1)(B) of the Act. Gulf County has submitted an HCP to the USFWS in conjunction with an application for a section 10(a)(1)(B) permit that minimizes and mitigates the impacts of County-regulated driving on the beach.

Predation

Predation of sea turtle eggs and hatchlings by native and nonnative species occurs on almost all nesting beaches. Predation by a variety of predators can considerably decrease sea turtle nest hatching success. The most common predators in the southeastern U.S. are ghost crabs (*Ocypode quadrata*), raccoons (*Procyon lotor*), feral hogs (*Sus scrofa*), foxes (*Urocyon cinereoargenteus* and *Vulpes vulpes*), coyotes (*Canis latrans*), armadillos (*Dasypus novemcinctus*), and fire ants (*Solenopsis invicta*) (Stancyk 1982, p. 145; Dodd 1988, p. 48). In the absence of nest protection programs in a number of locations throughout the southeastern U.S., raccoons may depredate up to 96 percent of all nests deposited on a beach (Davis and Whiting 1977, p. 20; Stancyk *et al.* 1980, p. 290; Talbert *et al.* 1980, p. 712; Hopkins and Murphy 1981, p. 67; Schroeder 1981, p. 35; Labisky *et al.* 1986, pp. 14–15). In addition, nesting turtles harassed by predators (e.g., coyotes, red foxes) on the beach may abort nesting attempts (Hope 2012, pers. comm.). Thus, the presence of predators can affect the suitability of nesting habitat.

The longest standing beach management programs in the southeastern U.S. have focused on reducing the destruction of nests by natural and introduced predators. Most major nesting beaches in the southeastern U.S. employ some type of lethal (trapping, hunting) or nonlethal (screen, cage) control of mammalian predators to reduce nest loss. Overall, nest protection activities have substantially reduced loggerhead nest depredations, although the magnitude of the reduction has not been quantified.

Beach Sand Placement Activities

Substantial amounts of sand are deposited along Gulf of Mexico and Atlantic Ocean beaches to protect coastal properties in anticipation of preventing erosion and what otherwise would be considered natural processes of overwash and island migration. Constructed beaches tend to differ from natural beaches in several important ways for sea turtles. They are typically wider, flatter, and more compact, and the sediments are moister than those on natural beaches (Nelson *et al.* 1987, p. 51; Ackerman *et al.* 1991, p. 22; Ernest and Martin 1999, pp. 8–9). On severely eroded sections of beach, where little or no suitable nesting habitat previously existed, sand placement can result in increased nesting (Ernest and Martin 1999, p. 37). The placement of sand on a beach with reduced dry foredune

habitat may increase sea turtle nesting habitat if the placed sand is highly compatible (i.e., grain size, shape, color, etc.) with naturally occurring beach sediments in the area, and compaction and escarpment remediation measures are incorporated into the project. In addition, a nourished beach that is designed and constructed to mimic a natural beach system may benefit sea turtles more than an eroding beach it replaces. However, beach sand placement projects conducted under the USFWS's SPBO for the USACE planning and regulatory sand placement activities (including post-disaster sand placement activities) in Florida and other individual biological opinions throughout the loggerhead's nesting range include required terms and conditions that minimize incidental take of turtles.

There are, however, a few important ephemeral impacts associated with beach sand placement activities. In most cases, a significantly larger proportion of turtles emerging on engineered beaches abandon their nesting attempts than turtles emerging on natural or pre-nourished beaches, even though more nesting habitat is available (Trindell *et al.* 1998, p. 82; Ernest and Martin 1999, pp. 47–49; Herren 1999, p. 44; Brock *et al.* 2009, p. 302), with nesting success approximately 10 to 34 percent lower on nourished beaches than on control beaches during the first year post-nourishment. This reduction in nesting success is most pronounced during the first year following project construction and is most likely the result of changes in physical beach characteristics (beach profile, sediment grain size, beach compaction, frequency and extent of escarpments) associated with the nourishment project (Ernest and Martin 1999, p. 48; Mota 2009, p. 129). During the first post-construction year, the time required for turtles to excavate an egg chamber on untilled, hard-packed sands increases significantly relative to natural beach conditions. Also during the first post-construction year, nests on nourished beaches are deposited significantly more seaward of the toe of the dune than nests on natural beaches. More nests are washed out on the wide, flat beaches of the nourished treatments than on the narrower steeply sloped natural beaches. This phenomenon may persist through the second post-construction year and result from the placement of nests near the seaward edge of the beach berm where dramatic profile changes, caused by erosion and scarping, occur as the beach equilibrates to a more natural contour (Ernest and Martin 1999, p. 85).

In-Water and Shoreline Alterations

Many navigable mainland or barrier island tidal inlets along the Atlantic and Gulf of Mexico coasts are stabilized with jetties or groins. Breakwaters placed parallel to the shore have been used as well. Jetties are built perpendicular to the shoreline and extend through the entire nearshore zone and past the breaker zone to prevent or decrease sand deposition in the channel (Kaufman and Pilkey 1979, pp. 193–195). Groins are also shore-perpendicular structures that are designed to trap sand that would otherwise be transported by longshore currents and can cause downdrift erosion (Kaufman and Pilkey 1979, pp. 193–195).

These in-water structures have profound effects on adjacent beaches (Kaufman and Pilkey 1979, p. 194). Jetties and groins placed to stabilize a beach or inlet prevent normal sand transport, resulting in accretion of sand on updrift beaches and acceleration of beach erosion downdrift of the structures (Komar 1983, pp. 203–204; Pilkey *et al.* 1984, p. 44). Witherington *et al.* (2005, p. 356) found a significant negative relationship between loggerhead nesting density and distance from the nearest of 17 ocean inlets on the Atlantic coast of Florida. The effect of inlets in lowering nesting density was observed both updrift and downdrift of the inlets, leading researchers to propose that beach instability from both erosion and accretion may discourage loggerhead nesting.

Following construction, the presence of groins and jetties may interfere with nesting turtle access to the beach, result in a change in beach profile and width (downdrift erosion, loss of sandy berms, and escarpment formation), trap hatchlings, and concentrate predatory fishes, resulting in higher probabilities of hatchling predation. In addition to decreasing nesting habitat suitability, construction or repair of groins and jetties during the nesting season may result in the destruction of nests, disturbance of females attempting to nest, and disorientation of emerging hatchlings from project lighting (Kaufman and Pilkey 1979, p. 194; Komar 1983, p. 191; National Research Council 1987, pp. 73–74; Howard and Davis 1999, pp. 6–7).

However, groins and jetties constructed in appropriate high erosion areas, or to offset the effects of shoreline armoring, may reestablish a beach where none currently exists, stabilize the beach in rapidly eroding areas and reduce the potential for escarpment formation, reduce destruction of nests from erosion, and reduce the need for future sand placement events by extending the interval between sand placement events. USFWS includes terms and conditions in its biological opinions for groin and jetty construction projects to eliminate or reduce impacts to nesting and hatchling sea turtles, sea turtle nests, and sea turtle nesting habitat.

Nesting beach may be lost due to the dredging of spits that have accreted and become a hindrance to navigation. The sand may not be lost from the system if appropriate best management practices are used. For example, sand elsewhere in the system will continue to play a role in downdrift habitat protection.

Coastal Development

Coastal development not only causes the loss and degradation of suitable nesting habitat, but can result in the disruption of powerful coastal processes, accelerating erosion and interrupting the natural shoreline migration. This may in turn cause the need to protect upland structures and infrastructure by armoring, which causes changes in, additional loss of, or impact to the remaining sea turtle habitat.

In the southeastern U.S., numerous armoring or erosion control structures (e.g., bulkheads, seawalls, soil retaining walls, rock revetments, sandbags, geotextile tubes) that create barriers to nesting have been constructed to protect upland residential and commercial development. Armoring is any rigid structure placed parallel to the shoreline on the upper beach to prevent both landward retreat of the shoreline and inundation or loss of upland property by flooding and wave action (Kraus and McDougal 1996, p. 692). Although armoring structures may provide short-term protection to beachfront property, they do little to promote or maintain sandy beaches used by loggerhead sea turtles for nesting. These structures influence natural shoreline processes and the physical beach environment, but the effects are not well understood. However, it is clear that armoring structures prevent long-term recovery of the beach and dune system (i.e., building of the back beach) by physically prohibiting dune formation from wave uprush and wind-blown sand. The proportion of coastline that is armored is approximately 3 percent (9 km (5.6 mi)) in North Carolina (Godfrey 2013, pers. comm.), 12 percent (29 km (18.0 mi)) in South Carolina (Griffin 2009, pers. comm.), 9 percent (14 km (8.7 mi)) in Georgia (Dodd 2013, pers. comm.), 18 percent (239 km (148.4 mi)) in Florida (Schroeder and Mosier 2000, p. 291), 6 percent (7.5 km (4.7 mi)) in

Alabama (Morton and Peterson 2005, entire), and 0 percent along the Mississippi barrier islands (Morton and Peterson 2005, entire).

In addition to coastal armoring, there are a variety of other coastal construction activities that may affect sea turtles and their nesting habitat. These include construction, repair, and maintenance of upland structures and dune crossovers; installation of utility cables; installation and repair of public infrastructure (such as coastal highways and emergency evacuation routes); and construction equipment and lighting associated with any of these activities. Many of these activities alter nesting habitat, as well as directly harm adults, nests, and hatchlings. Most direct construction-related impacts can be avoided by requiring that nonemergency activities be performed outside of the nesting and hatching season. However, indirect effects can also result from the post-construction presence of structures on the beach. The presence of these structures may cause adult females to return to the ocean without nesting, deposit their nests lower on the beach where they are more susceptible to frequent and prolonged tidal inundation, or select less suitable nesting sites.

Coastal development also contributes to habitat degradation by increasing light pollution. Both nesting and hatchling sea turtles are adversely affected by the presence of artificial lighting on or near the beach (Witherington and Martin 1996, pp. 2–5). See the threat category for *Artificial lighting* below for additional information.

Stormwater and other water source runoff from coastal development, including beachfront parking lots, building rooftops, roads, decks, and draining swimming pools adjacent to the beach, is frequently discharged directly onto Northwest Atlantic beaches and dunes either by sheet flow, through stormwater collection system outfalls, or through small-diameter pipes. These outfalls create localized erosion channels, prevent natural dune establishment, and wash out sea turtle nests (FWC, unpublished data).

Artificial Lighting

Experimental studies have shown that artificial lighting deters adult female turtles from emerging from the ocean to nest (Witherington 1992, pp. 36–38). Witherington (1986, p. 71) also found that loggerheads aborted nesting attempts at a greater frequency in lighted areas. In addition, because adult females rely on visual brightness cues to find their way back to the ocean after nesting, those turtles that nest on lighted beaches may become disoriented by artificial lighting and have difficulty finding their way back to the ocean. Although loggerhead turtles prefer dark beaches for nesting, many do nest in lighted areas. In doing so, they place the lives of their offspring at risk as artificial lighting can impair the ability of hatchlings to properly orient to the ocean once they leave their nests (Witherington and Martin 1996, pp. 7–13). Hatchlings, unable to find the ocean or delayed in reaching it, are likely to incur high mortality from dehydration, exhaustion, or predation (Carr and Ogren 1960, p. 23; Ehrhart and Witherington 1987, pp. 66–67; Witherington and Martin 1996, p. 11).

Based on hatchling orientation index surveys at nests located at 23 representative beaches in 6 counties around Florida in 1993 and 1994, Witherington *et al.* (1996, entire) found that, by county, approximately 10 to 30 percent of nests showed evidence of hatchlings disoriented by lighting. From this survey and from measures of hatchling production (FWC, unpublished data), the actual number of hatchlings disoriented by lighting in Florida is likely in the hundreds of thousands per year. Mortality of disoriented hatchlings is likely very high (NMFS and USFWS 2008, p. I–43).

Efforts are underway to reduce light pollution on sea turtle nesting beaches. In the southeastern U.S., the effects of light pollution on sea turtles are most extensive in Florida due to dense coastal development. Enforcement of mandatory lighting ordinances in Florida and other States has increased. The FWC, working in close coordination with USFWS, has developed a sea turtle lighting certification program that involves conducting workshops to educate all interested parties about the effects of lighting on sea turtles, the best lighting options to use near sea turtle nesting beaches, and the wide variety of light fixtures and bulbs available to manage lighting on their properties without negatively impacting sea turtles. In addition, sand placement projects typically include dune construction and these created dunes help minimize the effects of landward artificial lighting by blocking some of the light and creating a dark silhouette for nesting and hatchling turtle crawling to the ocean.

Beach Erosion

Natural beach erosion events may influence the quality of nesting habitat. Short-term erosion events (e.g., atmospheric fronts, northeasters, tropical storms, and hurricanes) are common phenomena throughout the Northwest Atlantic Ocean loggerhead nesting range and may vary considerably from year to year. Although these erosion events may affect loggerhead hatchling production, the results are generally localized and they rarely result in whole-scale losses over multiple nesting seasons. The negative effects of hurricanes on low-lying and developed shorelines used for nesting by loggerheads may be longer-lasting and a greater threat overall.

Hurricanes and other storm events can result in the direct loss of sea turtle nests, either by erosion or washing away of the nests by wave action and inundation or ''drowning'' of the eggs or pre-emergent hatchlings within the nest, or indirectly affect sea turtles by causing the loss of nesting habitat. Depending on their frequency, storms can affect sea turtles on either a short-term basis (nests lost for one season and temporary loss of nesting habitat) or a long-term basis (habitat unable to recover due to frequent storm events). The manner in which hurricanes affect sea turtle nesting also depends on their characteristics (winds, storm surge, rainfall), the time of year (within or outside of the nesting season), and where the northeast edge of the hurricane crosses land (Milton *et al.* 1994, pp. 978–980; Pike and Stiner 2007, p. 2).

Climate change studies have indicated a trend toward increasing hurricane intensity (Emanuel 2005, p. 686; Webster *et al.* 2005, p. 1846; Karl *et al.* 2009, p. 114). When combined with the effects of sea level rise (see the threat category for *Climate change* below for additional information), there may be increased cumulative impacts from future storms.

USFWS acknowledges that we cannot fully address the threat of natural beach erosion facing loggerheads. However, we can determine how we respond to beach erosion events working with the States, local governments, and Federal agencies such as the Federal Emergency Management Agency (FEMA) and the USACE. Emergency beach sand placement activities conducted under the USFWS's SPBO for the USACE planning and regulatory sand placement activities include requirements for post-disaster sand placement activities in Florida. In addition, USFWS and FEMA have two programmatic consultations for post-disaster response in Florida that cover replacement of pre-existing facilities and berm construction. These consultations have enabled a faster response to complete shore protection activities and protect sea turtle nesting.

Climate Change

Climate change has the potential to impact loggerhead sea turtles in the Northwest Atlantic, affecting nesting habitat availability, temperature dependent sex ratios, timing of the nesting season, and increased erosion from frequent intense storm events (Bender *et al.* 2010, p. 458; Weishampel *et al.* 2004, p. 1426; Hawkes *et al.* 2009, pp. 139–141; Reese *et al.* 2013, pp. 269–271). The decline in loggerhead nesting in Florida from 1998 to 2007, as well as the recent increase, appears to be tied to climatic conditions (Van Houtan and Halley 2011, p. 3). Another study suggested that annual nesting numbers represent a delayed response in association with the onset of protection efforts (Arendt *et al.* 2013, p. 7). Global sea level during the 20th century rose at an estimated rate of about 1.7 millimeters (mm) (0.7 in) per year or an estimated 17 cm (6.7 in) over the entire 100-year period, a rate that is an order of magnitude greater than that seen during the several millennia that followed the end of the last ice age (Bindoff *et al.* 2007, p. 409; Fuentes *et al.* 2009, p. 137). Global sea level is projected to rise in the 21st century at an even greater rate. In the southeastern U.S., the U.S. Global Change Research Program stated that sea level is likely to increase on average up to 0.61 m (2 ft) or more by the end of the 21st century (Karl *et al.* 2009, p. 114). Although rapid changes in sea level are predicted, estimated timeframes and resulting water levels vary due to the uncertainty about global temperature projections and the rate of ice sheets melting and slipping into the ocean (Bindoff *et al.* 2007, pp. 409, 421; Witt *et al.* 2009, p. 901).

Potential impacts of climate change to the Northwest Atlantic Ocean loggerhead DPS include beach erosion from rising sea levels, repeated inundation of nests, skewed hatchling sex ratios from rising incubation temperatures, and abrupt disruption of ocean currents used for natural dispersal during the complex life cycle (Fish *et al.* 2005, pp. 489–490; Fish *et al.* 2008, p. 336; Hawkes *et al.* 2009, pp. 139–141; Poloczanska *et al.* 2009, pp. 164–175). Along developed coastlines, and especially in areas where shoreline protection structures have been constructed to limit shoreline movement, rising sea levels will cause severe effects on loggerhead nesting habitat and nesting females and their eggs. The loss of habitat as a result of climate change could be accelerated due to a combination of other environmental and oceanographic changes such as an increase in the intensity of storms and/or changes in prevailing currents, both of which could lead to increased beach loss via erosion (Kennedy *et al.* 2002, pp. 7, 14, 23, 40; Meehl *et al.* 2007, pp. 783, 788). Thus, climate change impacts could have profound long-term impacts on loggerhead nesting populations in the Northwest Atlantic Ocean, but it is not possible to project the impacts at this point in time.

USFWS acknowledges that we cannot fully address the significant, long-term threat of climate change to loggerhead sea turtles. However, we can determine how we respond to the threat of climate change by providing protection to the known nesting sites of the turtle. We can also identify measures to protect nesting habitat from the actions (e.g., coastal armoring, sand placement) undertaken to respond to climate change that may potentially impact the Northwest Atlantic Ocean loggerhead DPS.

Habitat Obstructions

Both natural and anthropogenic features (e.g., offshore sand bars, ponding along the beachfront) can act as barriers or deterrents to adult females attempting to access a beach. In addition, hatchlings often must navigate through a variety of obstacles before reaching the ocean. These include natural (e.g., tree stumps, fallen trees) and human-made debris. Debris on the beach may interfere with a hatchling's progress toward the ocean. Research has shown that travel times of hatchlings from the nest to the water may be extended when traversing areas of heavy foot traffic or vehicular ruts (Hosier *et al.* 1981); the same is true of debris on the beach. Hatchlings may be upended and spend both time and energy in righting themselves. Some beach debris may have the potential to trap hatchlings and prevent them from successfully reaching the ocean. In addition, debris over the tops of nests may impede or prevent hatchling emergence.

Human-Caused Disasters and Response to Natural and Human-Caused Disasters

Oil spills threaten loggerhead sea turtles in the Northwest Atlantic Ocean. Oil spills in the vicinity of nesting beaches just prior to or during the nesting season place nesting females, incubating egg clutches, and hatchlings at significant risk from direct exposure to contaminants (Fritts and McGehee 1982, p. 38; Lutcavage *et al.* 1997, p. 395; Witherington 1999, p. 5), as well as negative impacts on nesting habitat. Annually about 1 percent of all sea turtle strandings along the U.S. east coast have been associated with oil, but higher rates of 3 to 6 percent have been observed in South Florida and Texas (Rabalais and Rabalais 1980, p. 126; Plotkin and Amos 1990, p. 742; Teas 1994, p. 9). Oil cleanup activities can also be harmful. Earth-moving equipment can dissuade females from nesting and destroy nests, containment booms can entrap hatchlings, and lighting from nighttime activities can misdirect turtles (Witherington 1999, p. 5).

Deepwater Horizon (Mississippi Canyon 252) Oil Spill: The Deepwater Horizon (Mississippi Canyon 252) oil spill, which started April 20, 2010, discharged oil into the Gulf of Mexico through July 15, 2010. According to government estimates, between 379 and 757 million liters (100 and 200 million gallons) of oil were released into the Gulf of Mexico during this time. The U.S. Coast Guard estimates that more than 189 million liters (50 million gallons) of oil have been removed from the Gulf, or roughly a quarter of the spill amount. Additional impacts to natural resources may be attributed to the 7 million liters (1.84 million gallons) of dispersant that were applied to the spill. The U.S. Coast Guard, the States, and Responsible Parties that formed the Unified Area Command (with advice from Federal and State natural resource agencies) initiated protective measures and cleanup efforts by preparing contingency plans to deal with petroleum and other hazardous chemical spills for each State's coastline. These plans identified sensitive habitats, including all federally listed species' habitats, which received a higher priority for response actions and allowed for immediate habitat protective measures coinciding with cleanup activities.

Throughout the Deepwater Horizon oil spill response, the U.S. Coast Guard was responsible for and continues to oversee implementation and documentation of avoidance and minimization measures to protect trust resources, including sea turtles. Though containment of the well was completed in September 2010, other countermeasures, cleanup, and waste disposal are continuing and, therefore, a detailed analysis of the success of the avoidance and minimization measures has not been conducted. In addition, Natural Resource Damage Assessment studies regarding potential effects to fish and wildlife resources are currently being conducted along the northern Gulf of Mexico coast.

Juvenile loggerhead turtles and adult females have been tracked and known to forage in the Gulf of Mexico (Mansfield

2006, p. 4; Foley *et al.* 2008, pp. 75–76; Turtle Expert Working Group 2009, pp. 30–39). It is not yet clear what the immediate and long-term impacts of the Deepwater Horizon oil well blowout and uncontrolled release has had, and will have, on loggerhead sea turtles in the Gulf of Mexico.

Military Mission, Testing, and Training Activities

Troop presence: The presence of soldiers and other personnel on the beach, particularly at night during nesting and hatching season, could result in harm or death to individual nesting turtles or hatchlings, as well as deter females from nesting. Training exercises require concentration and often involve inherently dangerous activities. A nesting sea turtle or emerging hatchling could be overlooked and injured or killed by training activities on the beach. Training activities also may require the use of pyrotechnics and lighting, and both nesting and hatchling sea turtles are adversely affected by the presence of artificial lighting on or near the beach (Witherington and Martin 1996, pp. 2–5). See the threat category for *Artificial lighting* above for additional information.

Vehicles: The use of vehicles for amphibious assault training, troop transport, helicopter landing drops and extraction, search and rescue, and unmanned aerial vehicle use all have the potential to injure or kill nesting females and emerging hatchlings. In addition, heavy vehicles have the potential to compact sand that may affect the ability of hatchlings to climb out of nests or create ruts that entrap hatchlings after emergence. See the threat category for *Beach driving* above for additional information.

Live fire exercises: Live fire exercises are inherently dangerous, and spent ammunition could injure or kill sea turtles and hatchlings, particularly at night. A nesting sea turtle or emerging hatchling could approach the beach area during an exercise and be harmed or killed.

Placement or removal of objects on the beach: Digging into the sand to place or remove objects (e.g., mine placement and extraction) could result in direct mortality of developing embryos in nests within the training area for those nests that are missed during daily nesting surveys and thus not marked for avoidance. The exact number of these missed nests is not known. However, in two separate monitoring programs on the east coast of Florida where hand digging was performed to confirm the presence of nests and thus reduce the chance of missing nests through misinterpretation, trained observers still missed about 6 to 8 percent of the nests because of natural elements (Martin 1992, p. 3; Ernest and Martin 1993, pp. 23–24). This must be considered a conservative number, because missed nests are not always accounted for. In another study, Schroeder (1994, p. 133) found that, even under the best of conditions, about 7 percent of nests can be misidentified as false crawls by highly experienced sea turtle nest surveyors. Signs of hatchling emergence are very easily obliterated by the same elements that interfere with detection of nests.

USFWS consults with DOD under section 7 of the Act on INRMPs, military mission, testing, and training activities that may affect nesting and hatchling sea turtles, sea turtle nests, and sea turtle nesting habitat. Efforts to minimize the effects of these activities including natural resource management have focused on adjusting the activity timing to minimize encounters with loggerheads and adjusting locations of activities to reduce overlap with sea turtle habitats.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulation at 50 CFR 424.12(b) we review available information pertaining to the habitat requirements of the species and identify occupied areas at the time of listing that contain the features essential to the conservation of the species. Here, we are designating critical habitat in areas within the geographical area occupied by the species at the time of listing in 2011 (50 CFR 17.11(h)). We are not currently designating any areas outside the geographical area occupied by the species because occupied areas are sufficient for the conservation of the species.

Although the loggerhead sea turtle occurs throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans (Dodd 1988, p. 16), under our regulations critical habitat can only be designated in areas under U.S. jurisdiction (50 CFR 424.12(h)). Because loggerhead sea turtle nesting in the U.S. only occurs within the Northwest Atlantic Ocean DPS, we have 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; this time period represents the most consistent and standardized nest count surveys (FWC 2012, entire; GDNR 2012, entire; Gulf Islands National Seashore 2012a, entire; Gulf Islands National Seashore 2012b, entire; NCWRC 2012, entire; Share the Beach 2012, entire; SCDNR 2012, entire). Nesting data were collected through a network of volunteers, private conservation groups, consultants, academics, local governments, Federal agencies, and Park Services. We collaborated with our State Technical Advisors in North Carolina, South Carolina, Georgia, and Florida. As the coordinators of the nesting surveys in those states, they provided information on the survey efforts and consistency for those specific locations to ensure our analysis accurately reflected the nesting survey effort for those states. We collected information on nesting data directly from one organization of volunteers in Alabama and the National Park Service in Mississippi.

As described in the Background section above, five recovery units have been identified for the Northwest Atlantic DPS of the loggerhead sea turtle (NMFS and USFWS 2008, pp. II–2—II–6). Four of these recovery units represent nesting assemblages in the southeastern U.S. and were delineated based on genetic differences and a combination of geographic distribution of nesting densities, geographic separation, and geopolitical boundaries. The fifth recovery unit (Greater Caribbean Recovery Unit) includes all nesting assemblages within the Greater Caribbean, which includes Puerto Rico and the U.S. Virgin Islands. No loggerhead sea turtle nesting has ever been documented in Puerto Rico (Diez 2012, pers. comm.). Only two loggerhead sea turtles have been documented as nesting since 2003 in the U.S. Virgin Islands, both on Buck Island Reef National Monument off the north coast of St. Croix (Pollock *et al.* 2009, entire). Therefore, although some loggerhead sea turtle nesting has been documented on beaches under U.S. jurisdiction within the Greater Caribbean Recovery Unit, we do not designate any critical habitat there due to the very low number of nests laid there. Therefore, the four recovery units for which we designate critical habitat are the Northern Recovery Unit, Peninsular Florida Recovery Unit, Dry Tortugas Recovery Unit, and Northern Gulf of Mexico Recovery Unit.

All terrestrial units designated as critical habitat are currently occupied by the loggerhead sea turtle, occur within the species' geographical range,

and contain the PBFs, as well as the PCEs sufficient to support the terrestrial life-history processes of the species.

Within each of the four recovery units, the beaches having the highest nesting densities were selected. The selected beaches represent a good spatial distribution that will help ensure the protection of genetic diversity, and collectively provide a good representation of total nesting. In addition, the beaches adjacent to the high-density nesting beaches were selected because they 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. Thus, the amount and distribution of critical habitat being designated for terrestrial habitat will conserve recovery units of the DPS by:

(1) Maintaining their existing nesting distribution;

(2) Allowing for movement between beach areas depending on habitat availability (response to changing nature of coastal beach habitat) and supporting genetic interchange;

(3) Allowing for an increase in the size of each recovery unit to a level where 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.

We used the following process to select specific areas in the terrestrial environment as critical habitat units. For each recovery unit, we looked at nesting densities as described below to ensure a good spatial distribution of critical habitat. This approach was relatively straightforward for the Northern Recovery Unit and the Northern Gulf of Mexico Recovery Unit. For the Dry Tortugas Recovery Unit, all islands west of Key West where loggerhead nesting has been documented has been designated as critical habitat based on the unit's small size. However, the approach used for the Peninsular Florida Recovery Unit was more complex. The methodology used for identifying critical habitat was developed with the assistance of five State agency technical consultants with sea turtle expertise in North Carolina, South Carolina, Georgia, and Florida. The methodology is described by recovery unit below.

Northern Recovery Unit

For the Northern Recovery Unit, we used loggerhead nest counts from 2006–2011 to calculate mean nesting density for each beach. We defined beach segments as island beaches separated by creeks, inlets, or sounds. However, in some cases, for long contiguous stretches of habitat with no natural features, we used political boundaries to delineate beaches (e.g., Myrtle Beach).

We divided beach nesting densities into four equal groups by State and selected beaches that were within the top 25 percent (highest nesting densities) for designation as critical habitat. These high nesting density beaches along with the beaches adjacent to them, as described below, encompassed the majority of nesting within the recovery unit. The reason we determined high-density nesting beaches within each State, rather than the entire Northern Recovery Unit, was that doing so allowed for the inclusion of beaches near the northern extent of the range (North Carolina) that would otherwise be considered low density when compared with beaches further south (Georgia and South Carolina), ensuring a good spatial distribution. Although some loggerhead sea turtle nesting regularly occurs in Virginia, we did not designate any critical habitat there due to the very low number of nests (less than 10 annually from 1992 to 2011) laid in the State (Mansfield 2006, pp. 131–133).

We also identified adjacent beaches for each of the high-density nesting beaches based on current knowledge about nest site fidelity (Ehrhart 1980, p. 87; Murphy and Hopkins-Murphy 1990, 123–124; Schroeder *et al.* 2003, pp. 118–119). Loggerheads are known to exhibit high site fidelity to individual nesting beaches. In a study in Georgia, 55 percent (12 of 22) of nesting females tracked during the internesting period used a single island for nesting, while 40 percent (9 of 22) used two islands (Scott 2006, p. 51). Protecting beaches adjacent to high-density nesting beaches should provide sufficient habitat to accommodate and provide a rescue effect for nesting females whose primary nesting beach has been lost. Although these areas currently support nesting, they will facilitate recovery by providing additional nesting habitat for population expansion. Therefore, in the Northern Recovery Unit, we selected one island to the north and one island to the south, where appropriate, of each of the high-density nesting beaches identified for inclusion as critical habitat. Islands were selected because nesting occurs on the islands and not the mainland beaches.

We identified 39 units in the Northern Recovery Unit for designation as critical habitat for the loggerhead sea turtle. However, we have exempted one of the identified units (Marine Corps Base Camp Lejeune (Onslow Beach)) from critical habitat designation under section 4(a)(3) of the Act (see Exemptions section below). The remaining 38 units encompass 393.7 km (244.7 mi) of Atlantic Ocean shoreline: 8 units occur in North Carolina, 22 in South Carolina, and 8 in Georgia. These 38 areas encompass approximately 86 percent of the documented nesting (numbers of nests) within the recovery unit.

Peninsular Florida Recovery Unit

For the Peninsular Florida Recovery Unit, we took a similar approach to that used for the Northern Recovery Unit using nest counts from 2006–2011 collected under the Florida Statewide Index Nesting Beach program. However, we used recent information on loggerhead genetics within the recovery unit (Shamblin *et al.* 2011, entire) to break the unit into smaller regions for the purpose of assessing beach nesting densities (analogous to assessing nesting densities by State for the Northern Recovery Unit).

Within the southeastern U.S., Shamblin *et al.* (2011, p. 585) supported recognition of a minimum of six distinct units based solely on genetics. Four of these genetic units occur fully or partially within the Peninsular Florida Recovery Unit: (1) Northern, (2) central eastern Florida, (3) southern Florida (southeastern and southwestern), and (4) central western Florida. We used these four regions identified by Shamblin *et al.* (2011, p. 585) for our assessment, but split southern Florida into southeastern and southwestern regions based on additional genetic analyses (Shamblin *et al.* 2012, p. 158). We included the Florida Keys in Monroe County from Key West and east in the southeastern region because, even though the sample sizes for loggerhead genetics on these islands are too small to make any definitive determinations, they do indicate that loggerheads nesting in this area are least likely to group out with those in the southwestern region (Shamblin *et al.* 2012, p. 158).

Therefore, we split the Peninsular Florida Recovery Unit into the following five regions for an assessment of nesting densities based on recovery unit boundaries (NMFS and USFWS 2008, pp. II–2—II–6) and recent genetic analyses (Shamblin *et al.* 2011, p. 585; Shamblin *et al.* 2012, p. 158):

(1) Northern Florida—Florida-Georgia border to Ponce Inlet;

(2) Central Eastern Florida—Ponce Inlet to Fort Pierce Inlet;

(3) Southeastern Florida—Fort Pierce Inlet to Key West in Monroe County;

(4) Central Western Florida—Pinellas County to San Carlos Bay off Lee County; and

(5) Southwestern Florida—San Carlos Bay off Lee County to Sandy Key in northwest Monroe County.

The next step for the Peninsular Florida Recovery Unit was to delineate beaches within these five regions. For the Florida Atlantic Coast from the Florida-Georgia border through central eastern Monroe County, and for the Florida Gulf Coast from the Pinellas County-Pasco County border through northwestern Monroe County, we first defined beach segments as islands or mainland beaches separated by inlets, cuts, rivers, creeks, bays, sounds, passes, and channels. Note that, for the Miami Beaches area, we did not use the Haulover Cut to delineate beaches north and south of this water feature. The reason for this is that the permit holder survey area for the Miami Beaches occurs both north and south of the Haulover Cut, and the nesting data could not readily be separated. In this situation, the nesting density analysis included data that covered the entire survey area from the south end of Golden Beach to Government Cut.

After breaking out beach segments using inlets and other water features, we determined that the identified beach segments were overly large in some areas for an accurate assessment of nesting densities. Calculating nesting densities for overly large areas could result in some high-density nesting beaches not being identified because they would be averaged in with adjacent lower density nesting beaches. To address this issue, we next used information available on turtle nest site fidelity to further separate beach segments. Nest site fidelity varies among females, with some females laying multiple nests on a relatively small section of beach and some laying their nests over a much larger section of beach. Schroeder *et al.* (2003, p. 119) compiled reported information on mean distances between the nest sites of individual loggerheads, with the reported averages of females nesting on the Florida Atlantic coast varying from 3.0 to 17.48 km (1.9 to 10.9 mi). In Southwest Florida, Tucker (2010, p. 51) reported a mean nest site fidelity of 28.1 km (17.5 mi) for all nests, but 16.9 km (10.5 mi) if the first nests were omitted to account for each turtle's navigational correction. Based on this information, we decided to use distances of approximately 20.0 km (12.4 mi) to further separate out beach segments. We used this 20.0-km (12.4-mi) target in concert with sea turtle permit holder nesting survey area boundaries to delineate beaches for the nesting density analysis.

For the Florida Keys in Monroe County, we grouped the islands from Key West and east where loggerhead nesting has been documented into three separate segments: (1) Upper segment consisting of Lower Matecumbe Key and Long Key; (2) Middle segment consisting of Little Crawl Key, Fat Deer Key, Key Colony Beach (formerly called Shelter Key), and Vaca Key; and (3) Lower segment consisting of Bahia Honda Key, Big Pine Key, and Key West. Note that Sandy Key in northwestern Monroe County was grouped with the Southwestern Florida Region.

Once we defined the beaches by region within the Peninsular Florida Recovery Unit, we used the same approach described above for the Northern Recovery Unit. We divided beach nesting densities into four equal groups by region and selected beaches that were within the top 25 percent (highest nesting densities) for designation as critical habitat. These high density nesting beaches along with the beaches adjacent to them, as described below, encompassed the majority of nesting within the recovery unit. The reason we determined high-density nesting beaches within each region (rather than the entire Peninsular Florida Recovery Unit) was to ensure the inclusion of beaches that would otherwise be considered low density when compared with beaches along the southeastern Florida coast and thus ensure a good spatial distribution of critical habitat units within the recovery unit.

We also identified adjacent areas for each of the high-density nesting beaches based on current knowledge about nest site fidelity. Protecting beaches adjacent to high-density nesting beaches should provide sufficient habitat to accommodate and provide a rescue effect for nesting females whose primary nesting beach has been lost. To identify adjacent beaches, we again used information available on turtle nest site fidelity. Therefore, for the Peninsular Florida Recovery Unit, we selected adjacent beaches approximately 20.0 km (12.4 mi) to the north and 20.0 km (12.4 mi) to the south, where appropriate, of each of the high-density nesting beaches identified for inclusion as critical habitat. The selected adjacent beaches were based on permit holder survey area boundaries with one or more permit holder survey areas being included depending on the length of the survey areas. Within these adjacent areas for each of the high-density nesting beaches, we did not include segments that were highly urbanized, highly erosional, or prone to repeated flooding.

Although no beaches in the Florida Keys east of Key West were selected using the above process, we decided to include beaches on two Keys to ensure good spatial distribution of loggerhead nesting in the southern portion of the range for this recovery unit. The Keys (Long Key and Bahia Honda Key) we are designating as critical habitat address this need for good spatial distribution of nesting. In addition, these beaches are unique from the other beaches we are designating in that they are limestone islands with narrow, low-energy beaches (beaches where waves are not powerful); they have carbonate sands; and they are relatively close to the major offshore currents that are known to facilitate the dispersal of post-hatchling loggerheads (Putman *et al.* 2010, p. 3634; Mansfield and Putman 2013, pp. 192–193).

We identified 37 units in the Peninsular Florida Recovery Unit for designation as critical habitat for the loggerhead sea turtle. However, we have exempted two of the identified units (Cape Canaveral Air Force Station and Patrick Air Force Base) from critical habitat designation under section 4(a)(3) of the Act (see Exemptions section below). Additionally, we have excluded two units and portions of three others per the Secretary's discretion under section 4(b)(2) of the Act (see Exclusions section below). The remaining 33 units encompass 277.6 km (172.5 mi) of Atlantic Ocean shoreline and 198.8 km (123.5 mi) of Gulf of Mexico shoreline totaling 426.4 km (296 mi) of shoreline in this recovery unit: 16 units occur along the Atlantic Ocean coast, and 17 units occur along the Gulf of Mexico coast. These 33 units encompass approximately 86 percent of the documented nesting (numbers of nests) within the recovery unit.

Dry Tortugas Recovery Unit

For the Dry Tortugas Recovery Unit, we designate as critical habitat all islands west of Key West, Florida, where loggerhead nesting has been documented due to the extremely small size of this recovery unit. We identified four units in the Dry Tortugas Recovery Unit for designation as critical habitat for the loggerhead sea turtle. These four units encompass 14.0 km (8.7 mi) of Gulf of Mexico shoreline. These four units encompass 100 percent of the nesting (numbers of nests) where loggerhead nesting is known to occur within the recovery unit.

Northern Gulf of Mexico Recovery Unit

For the Northern Gulf of Mexico Recovery Unit, we used loggerhead nest counts from 2006–2011 to calculate mean nesting density for each beach. We defined beach segments as islands or mainland beaches separated by cuts, bays, sounds, or passes. We did not use Crooked Island Sound, St. Andrews Bay Entrance Channel, and Destin Pass to delineate beaches west and east of these water features because the permit holder survey areas for these three locations occur both west and east of the water feature, and the nesting data could not readily be separated. In each location, the nesting density analysis included data that covered the entire survey areas on both sides of the water feature.

After breaking out beach segments using cuts and other water features, we determined that the identified beach segments were overly large in some areas for an accurate assessment of nesting densities. Calculating nesting densities for overly large areas could result in some high-density nesting beaches not being identified because they would be averaged in with adjacent lower density nesting beaches. To address this issue, we used political boundaries and information available on turtle nest site fidelity to further separate beach segments. During the selection process, there was preliminary information on nest site fidelity available for the Northern Gulf of Mexico Recovery Unit, but it was not sufficient to determine average distances between nest sites within a season for nesting females in this recovery unit. Therefore, as described in the Peninsular Florida Recovery Unit section above, we decided to use distances of approximately 20.0 km (12.4 mi) to further separate out beach segments based on available information on nest site fidelity. We used this 20.0-km (12.4-mi) target in concert with sea turtle permit holder nesting survey area boundaries to delineate beaches for the nesting density analysis. Since then, Hart *et al.* (2013, pp. 11–12) found the mean distances between the nest sites of individual loggerhead sea turtles; with the reported average of females nesting on the Gulf of Mexico coast as 27.5 km (14.8 mi) with a range of 0.1 to 402.1 km (0.1 to 217.1 mi). Even though nest site fidelity for the Northern Gulf of Mexico Recovery Unit is slightly higher than the Peninsula Florida Recovery Unit, our use of the 20.0 km (12.4 mi) for nest site fidelity falls within the realm of acceptable site fidelity in this Recovery Unit considering outliers and is considered sufficient for conservation.

Once we defined the beaches by State within the Northern Gulf of Mexico Recovery Unit, we used a similar approach as the one described above for the Northern Recovery Unit. For Mississippi, nesting data are not collected regularly or in a standardized manner. Prior to 2006, the NPS annually conducted aerial sea turtle nesting surveys once a week during the nesting season on the Mississippi District of Gulf Islands National Seashore. Aerial surveys were conducted over Cat, West Ship, East Ship, Horn, and Petit Bois Islands. All nests sighted during aerial surveys appeared to be loggerhead nests. The total number of nests for a season ranged from 0 to approximately 15, although aerial survey methods and frequency may have missed nests. Although regular surveys have not been conducted since 2005, loggerhead nesting was documented in 2010 and 2011 during the Deepwater Horizon event response efforts. Horn and Petit Bois Islands have had the most nests; the other islands have had occasional nests. For Alabama and the Florida Panhandle, we divided beach nesting densities into four equal groups by State and selected beaches that were within the top 25 percent (highest nesting densities) for designation as critical habitat. These high density nesting beaches along with the beaches adjacent to them as described below encompassed the majority of nesting within the recovery unit. The reason we determined high-density nesting beaches within each State (rather than the entire Northern Gulf of Mexico Recovery Unit) was that it allowed consideration for the inclusion of beaches near the western extent of the range that would otherwise be considered low density when compared with beaches in Alabama and the Florida Panhandle, thus ensuring a good spatial distribution. While nesting in Mississippi may be considered low density compared to Alabama and the Florida Panhandle, the nesting numbers were much higher than those in Louisiana and Texas. Thus, although some loggerhead sea turtle nesting likely regularly occurs in Louisiana and Texas, we did not designate any critical habitat there due to the very low number of nests (less than 10 annually in each State from 2002 to 2011) known to be laid in these States.

We also identified adjacent areas for each of the high-density nesting beaches in Alabama and the Florida Panhandle based on current knowledge about nest site fidelity. Protecting beaches adjacent to high-density nesting beaches should provide sufficient habitat to accommodate and provide a rescue effect for nesting females whose primary nesting beach has been lost. To identify adjacent beaches, we again used information available on turtle nest site fidelity. Although some preliminary information on nest site fidelity is available for the Northern Gulf of Mexico Recovery Unit, it was not sufficient to determine average distances between nest sites within a season for nesting females in this recovery unit. Therefore, we used available information on nest site fidelity for the Peninsular Florida Recovery Unit and selected adjacent beaches approximately 20.0 km (12.4 mi) to the west and 20.0 km (12.4 mi) to the east, where appropriate, of each of the high-density nesting beaches identified for inclusion as critical habitat. The selected adjacent beaches were based on permit holder survey area boundaries with one or more permit holder survey areas being included depending on the length of the survey areas. Within these adjacent areas for each of the high-density nesting beaches, we did not include segments that were highly urbanized, highly erosional, or prone to repeated flooding.

We identified 14 units in the Northern Gulf of Mexico Recovery Unit for designation as critical habitat for the loggerhead sea turtle. However, we have exempted one of the identified units (Eglin Air Force Base (Cape San Blas)) from critical habitat designation under section 4(a)(3) of the Act (see Exemptions section below). The remaining 13 units encompass 218.0 km (135.5 mi) of Gulf of Mexico shoreline: 2 units occur in Mississippi, 3 in Alabama, and 8 in the Florida Panhandle. These 13 units encompass approximately 75 percent of the documented nesting (numbers of nests) within the recovery unit. The percentage of nesting is based on data from the Florida Panhandle and Alabama only.

For all units, when determining critical habitat boundaries we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack PBFs necessary for the loggerhead sea turtle. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the final rule and are not designated as critical habitat. A Federal action involving these lands would not trigger

section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the PBFs in the adjacent critical habitat.

In order to translate the selection process above to the areas on the ground, we used the following methodology to identify the mapped boundaries of critical habitat for the DPS:

(1) Each unit was digitally mapped in Google Earth imagery using the unit boundary descriptions.

(2) Where feasible, natural or artificial features (inlets, channels, creeks, bays and sounds), political boundaries (County or City), or map-depicted land ownership (Federal, State, or local) were used as unit boundaries.

(3) Where features to be used as boundaries were highly dynamic, such as inlets, boundaries were distinguished using records of the sea turtle nesting in that area.

(4) Where natural, artificial, or political features, or land ownership could not be used for unit boundaries, boundaries were delineated by geographic means (latitude and longitude, decimal degree points).

(5) Data layers defining map units were created using Google Earth imagery, then refined using Bing imagery. Unit descriptions were then mapped using North America Lambert Conformal Conic coordinates.

Final Critical Habitat Designation

We are designating approximately 1,102.1 km (684.8 mi) in 88 units in the terrestrial environment as critical habitat for the loggerhead sea turtle. Under section 4(a)(3) of the Act, we have exempted four areas owned or controlled by DOD that are subject to INRMP's determined to provide a benefit to the species (see Exemptions section below). Additionally, under 4(b)(2) of the Act, we are excluding 2 units and portions of 3 units that were identified in the proposed rule for possible inclusion as critical habitat (see Exclusions section below). The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat in the terrestrial environment for the DPS. The 88 areas we designate as critical habitat and the approximate shoreline length and Federal, State, and private and other (counties and municipalities) ownership of each critical habitat unit are shown in Table 1.

The critical habitat designation is defined by the maps, as modified by any accompanying regulatory text, presented at the end of this document in the rule portion. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *http://www.regulations.gov* at Docket No. FWS–R4–ES–2012–0103, on our Internet site *http://www.fws.gov/,* and at the field office responsible for the designation at *http://www.fws.gov/northflorida,* (see **FOR FURTHER INFORMATION CONTACT** above).

TABLE 1—DESIGNATED CRITICAL HABITAT UNITS FOR THE LOGGERHEAD SEA TURTLE BY RECOVERY UNIT

[Beach length estimates reflect the linear distance along the nesting beach shoreline within critical habitat unit boundaries. All units are occupied by the loggerhead sea turtle. Note: For units in Florida, originally numbered Units LOGG–T–FL–01 to LOGG–T–FL–47 have been renumbered in the final rule as Units LOGG–T–FL–01 to LOGG–T–FL–45]

Critical habitat unit	Length of unit in kilometers (miles)	Federal	State	Private and other (counties and municipalities)
Northern Recovery Unit				
North Carolina				
LOGG–T–NC–01: Bogue Banks, Carteret County	38.9 (24.2)	0 (0)	4.6 (2.9)	34.3 (21.3)
LOGG–T–NC–02: Bear Island, Onslow County	6.6 (4.1)	0 (0)	6.6 (4.1)	0 (0)
LOGG–T–NC–03: Topsail Island, Onslow and Pender Counties	35.0 (21.8)	0 (0)	0 (0)	35.0 (21.8)
LOGG–T–NC–04: Lea-Hutaff Island, Pender County	6.1 (3.8)	0 (0)	0.5 (0.3)	5.6 (3.5)
LOGG–T–NC–05: Pleasure Island, New Hanover County	18.6 (11.5)	0 (0)	6.8 (4.2)	11.8 (7.3)
LOGG–T–NC–06: Bald Head Island, Brunswick County	15.1 (9.4)	0 (0)	5.8 (3.6)	9.3 (5.8)
LOGG–T–NC–07: Oak Island, Brunswick County	20.9 (13.0)	0 (0)	0 (0)	20.9 (13.0)
LOGG–T–NC–08: Holden Beach, Brunswick County	13.4 (8.3)	0 (0)	0 (0)	13.4 (8.3)
North Carolina State Totals	154.6 (96.1)	0 (0)	24.3 (15.1)	130.3 (81.0)
South Carolina				
LOGG–T–SC–01: North Island, Georgetown County	13.2 (8.2)	0 (0)	13.2 (8.2)	0 (0)
LOGG–T–SC–02: Sand Island, Georgetown County	4.7 (2.9)	0 (0)	4.7 (2.9)	0 (0)
LOGG–T–SC–03: South Island, Georgetown County	6.7 (4.2)	0 (0)	6.7 (4.2)	0 (0)
LOGG–T–SC–04: Cedar Island, Georgetown County	4.1 (2.5)	0 (0)	4.1 (2.5)	0 (0)
LOGG–T–SC–05: Murphy Island, Charleston County	8.0 (5.0)	0 (0)	8.0 (5.0)	0 (0)
LOGG–T–SC–06: Cape Island, Charleston County	8.3 (5.1)	8.3 (5.1)	0 (0)	0 (0)
LOGG–T–SC–07: Lighthouse Island, Charleston County	5.3 (3.3)	5.3 (3.3)	0 (0)	0 (0)
LOGG–T–SC–08: Raccoon Key, Charleston County	4.8 (3.0)	4.8 (3.0)	0 (0)	0 (0)
LOGG–T–SC–09: Folly Island, Charleston County	11.2 (7.0)	0 (0)	0 (0)	11.2 (7.0)
LOGG–T–SC–10: Kiawah Island, Charleston County	17.0 (10.6)	0 (0)	0 (0)	17.0 (10.6)
LOGG–T–SC–11: Seabrook Island, Charleston County	5.8 (3.6)	0 (0)	0 (0)	5.8 (3.6)
LOGG–T–SC–12: Botany Bay Island and Botany Bay Plantation, Charleston County	6.6 (4.1)	0 (0)	4.0 (2.5)	2.6 (1.6)
LOGG–T–SC–13: Interlude Beach, Charleston County	0.9 (0.6)	0 (0)	0.9 (0.6)	0 (0)
LOGG–T–SC–14: Edingsville Beach, Charleston County	2.7 (1.7)	0 (0)	0 (0)	2.7 (1.7)
LOGG–T–SC–15: Edisto Beach State Park, Colleton County	2.2 (1.4)	0 (0)	2.2 (1.4)	0 (0)
LOGG–T–SC–16: Edisto Beach, Colleton County	6.8 (4.2)	0 (0)	0 (0)	6.8 (4.2)
LOGG–T–SC–17: Pine Island, Colleton County	1.2 (0.7)	0 (0)	1.2 (0.7)	0 (0)

TABLE 1—DESIGNATED CRITICAL HABITAT UNITS FOR THE LOGGERHEAD SEA TURTLE BY RECOVERY UNIT—Continued

[Beach length estimates reflect the linear distance along the nesting beach shoreline within critical habitat unit boundaries. All units are occupied by the loggerhead sea turtle. Note: For units in Florida, originally numbered Units LOGG–T–FL–01 to LOGG–T–FL–47 have been renumbered in the final rule as Units LOGG–T–FL–01 to LOGG–T–FL–45]

Critical habitat unit	Length of unit in kilometers (miles)	Federal	State	Private and other (counties and municipalities)
LOGG–T–SC–18: Otter Island, Colleton County	4.1 (2.5)	0 (0)	4.1 (2.5)	0 (0)
LOGG–T–SC–19: Harbor Island, Beaufort County	2.9 (1.8)	0 (0)	0 (0)	2.9 (1.8)
LOGG–T–SC–20: Little Capers Island, Beaufort County	4.6 (2.9)	0 (0)	0 (0)	4.6 (2.9)
LOGG–T–SC–21: St. Phillips Island, Beaufort County	2.3 (1.4)	0 (0)	0 (0)	2.3 (1.4)
LOGG–T–SC–22: Bay Point Island, Beaufort County	4.3 (2.7)	0 (0)	0 (0)	4.3 (2.7)
South Carolina State Totals	127.7 (79.3)	18.4 (11.4)	48.9 (30.4)	60.4 (37.5)
Georgia				
LOGG–T–GA–01: Little Tybee Island, Chatham County	8.6 (5.3)	0 (0)	8.6 (5.3)	0 (0)
LOGG–T–GA–02: Wassaw Island, Chatham County	10.1 (6.3)	9.8 (6.1)	0 (0)	0.3 (0.2)
LOGG–T–GA–03: Ossabaw Island, Chatham County	17.1 (10.6)	0 (0)	17.1 (10.6)	0 (0)
LOGG–T–GA–04: St. Catherines Island, Liberty County	18.4 (11.5)	0 (0)	0 (0)	18.4 (11.5)
LOGG–T–GA–05: Blackbeard Island, McIntosh County	13.5 (8.4)	13.5 (8.4)	0 (0)	0 (0)
LOGG–T–GA–06: Sapelo Island, McIntosh County	9.3 (5.8)	0 (0)	9.3 (5.8)	0 (0)
LOGG–T–GA–07: Little Cumberland Island, Camden County	4.9 (3.0)	0 (0)	0 (0)	4.9 (3.0)
LOGG–T–GA–08: Cumberland Island, Camden County	29.7 (18.4)	25.2 (15.7)	0 (0)	4.5 (2.8)
Georgia State Totals	111.5 (69.3)	48.4 (30.1)	34.9 (21.7)	28.1 (17.5)
Northern Recovery Unit Totals	393.7 (244.7)	66.8 (41.5)	109.2 (67.9)	217.7 (135.3)
Peninsular Florida Recovery Unit				
Florida				
LOGG–T–FL–01: South Duval County Beaches-County line at Duval and St. Johns Counties	11.5 (7.1)	0 (0)	0 (0)	11.5 (7.1)
LOGG–T–FL–02: Fort Matanzas National Monument, St. Johns County	1.4 (0.9)	1.4 (0.9)	0 (0)	0 (0)
LOGG–T–FL–03: River to Sea Preserve at Marineland-North Peninsula State Park, Flagler and Volusia Counties	31.8 (19.8)	0 (0)	6.1 (3.8)	25.7 (16.0)
LOGG–T–FL–04: Canaveral National Seashore North, Volusia County	18.2 (11.3)	18.2 (11.3)	0 (0)	0 (0)
LOGG–T–FL–05: Canaveral National Seashore South-Merritt Island National Wildlife Refuge (NWR)-Kennedy Space, Brevard County	28.4 (17.6)	28.4 (17.6)	0 (0)	0 (0)
LOGG–T–FL–06: Central Brevard Beaches, Brevard County	19.5 (12.1)	0 (0)	0 (0)	19.5 (12.1)
LOGG–T–FL–07: South Brevard Beaches, Brevard County	20.8 (12.9)	4.2 (2.6)	1.5 (1.0)	15.0 (9.3)
LOGG–T–FL–08: Sebastian Inlet State Park-Archie Carr NWR South, Indian River County	4.1 (2.5)	0.9 (0.6)	3.2 (2.0)	0 (0)
LOGG–T–FL–09: Fort Pierce Inlet-St. Lucie Inlet, St. Lucie and Martin Counties	35.2 (21.9)	0 (0)	0 (0)	35.2 (21.9)
LOGG–T–FL–10: St. Lucie Inlet-Jupiter Inlet, Martin and Palm Beach Counties	24.9 (15.5)	4.8 (3.0)	3.7 (2.3)	16.4 (10.2)
LOGG–T–FL–11: Jupiter Inlet-Lake Worth Inlet, Palm Beach County	18.8 (11.7)	0 (0)	2.5 (1.5)	16.3 (10.1)
LOGG–T–FL–12: Lake Worth Inlet-Boynton Inlet, Palm Beach County	24.3 (15.1)	0 (0)	0 (0)	24.3 (15.1)
LOGG–T–FL–13: Boynton Inlet-Boca Raton Inlet, Palm Beach County	22.6 (14.1)	0 (0)	0 (0)	22.6 (14.1)
LOGG–T–FL–14: Boca Raton Inlet-Hillsboro Inlet, Palm Beach and Broward Counties	8.3 (5.2)	0 (0)	0 (0)	8.3 (5.2)
LOGG–T–FL–15: Long Key, Monroe County	4.2 (2.6)	0 (0)	4.2 (2.6)	0 (0)
LOGG–T–FL–16: Bahia Honda Key, Monroe County	3.7 (2.3)	0 (0)	3.7 (2.3)	0 (0)
LOGG–T–FL–17: Longboat Key, Manatee and Sarasota Counties	16.0 (9.9)	0 (0)	0 (0)	16.0 (9.9)
LOGG–T–FL–18: Siesta and Casey Keys, Sarasota County	20.8 (13.0)	0 (0)	0 (0)	20.8 (13.0)
LOGG–T–FL–19: Venice Beaches and Manasota Key, Sarasota and Charlotte Counties	26.0 (16.1)	0 (0)	1.9 (1.2)	24.1 (15.0)
LOGG–T–FL–20: Knight, Don Pedro, and Little Gasparilla Islands, Charlotte County	10.8 (6.7)	0 (0)	1.9 (1.2)	8.9 (5.5)
LOGG–T–FL–21: Gasparilla Island, Charlotte and Lee Counties	11.2 (6.9)	0 (0)	1.5 (1.0)	9.6 (6.0)
LOGG–T–FL–22: Cayo Costa, Lee County	13.5 (8.4)	0 (0)	13.2 (8.2)	0.3 (0.2)
LOGG–T–FL–23: Captiva Island, Lee County	7.6 (4.7)	0 (0)	0 (0)	7.6 (4.7)
LOGG–T–FL–24: Sanibel Island West, Lee County	12.2 (7.6)	0 (0)	0 (0)	12.2 (7.6)
LOGG–T–FL–25: Little Hickory Island, Lee and Collier Counties	8.7 (5.4)	0 (0)	0 (0)	8.7 (5.4)
LOGG–T–FL–26: Wiggins Pass-Clam Pass, Collier County	7.7 (4.8)	0 (0)	2.0 (1.2)	5.7 (3.6)
LOGG–T–FL–27: Clam Pass-Doctors Pass, Collier County	4.9 (3.0)	0 (0)	0 (0)	4.9 (3.0)
LOGG–T–FL–28: Keewaydin Island and Sea Oat Island, Collier County	13.1 (8.1)	0 (0)	12.4 (7.7)	0.7 (0.5)
LOGG–T–FL–29: Cape Romano, Collier County	9.2 (5.7)	0 (0)	7.2 (4.5)	2.0 (1.2)
LOGG–T–FL–30: Ten Thousand Islands North, Collier County	7.8 (4.9)	2.9 (1.8)	4.9 (3.1)	0 (0)
LOGG–T–FL–31: Highland Beach, Monroe County	7.2 (4.5)	7.2 (4.5)	0 (0)	0 (0)

TABLE 1—DESIGNATED CRITICAL HABITAT UNITS FOR THE LOGGERHEAD SEA TURTLE BY RECOVERY UNIT—Continued

[Beach length estimates reflect the linear distance along the nesting beach shoreline within critical habitat unit boundaries. All units are occupied by the loggerhead sea turtle. Note: For units in Florida, originally numbered Units LOGG–T–FL–01 to LOGG–T–FL–47 have been renumbered in the final rule as Units LOGG–T–FL–01 to LOGG–T–FL–45]

Critical habitat unit	Length of unit in kilometers (miles)	Federal	State	Private and other (counties and municipalities)
LOGG–T–FL–32: Graveyard Creek-Shark Point, Monroe County	0.9 (0.6)	0.9 (0.6)	0 (0)	0 (0)
LOGG–T–FL–33: Cape Sable, Monroe County	21.3 (13.2)	21.3 (13.2)	0 (0)	0 (0)
Florida State Totals	476.4 (296.0)	90.3 (56.1)	69.8 (43.4)	316.3 (196.5)
Peninsular Florida Recovery Unit Totals	476.4 (296.0)	90.3 (56.1)	69.8 (43.4)	316.3 (196.5)
Dry Tortugas Recovery Unit				
Florida				
LOGG–T–FL–34: Dry Tortugas, Monroe County	5.7 (3.6)	5.7 (3.6)	0 (0)	0 (0)
LOGG–T–FL–35: Marquesas Keys, Monroe County	5.6 (3.5)	5.6 (3.5)	0 (0)	0 (0)
LOGG–T–FL–36: Boca Grande Key, Monroe County	1.3 (0.8)	1.3 (0.8)	0 (0)	0 (0)
LOGG–T–FL–37: Woman Key, Monroe County	1.3 (0.8)	1.3 (0.8)	0 (0)	0 (0)
Florida State Totals	14.0 (8.7)	14.0 (8.7)	0 (0)	0 (0)
Dry Tortugas Recovery Unit Totals	14.0 (8.7)	14.0 (8.7)	0 (0)	0 (0)
Northern Gulf of Mexico Recovery Unit				
Mississippi				
LOGG–T–MS–01: Horn Island, Jackson County	18.6 (11.5)	17.7 (11.0)	0 (0)	0.8 (0.5)
LOGG–T–MS–02: Petit Bois Island, Jackson County	9.8 (6.1)	9.8 (6.1)	0 (0)	0 (0)
Mississippi State Totals	28.4 (17.6)	27.5 (17.1)	0 (0)	0.8 (0.5)
Alabama				
LOGG–T–AL–01: Mobile Bay-Little Lagoon Pass, Baldwin County	28.0 (17.4)	5.4 (3.4)	3.1 (1.9)	19.5 (12.1)
LOGG–T–AL–02: Gulf State Park-Perdido Pass, Baldwin County	10.7 (6.7)	0 (0)	3.5 (2.2)	7.3 (4.5)
LOGG–T–AL–03: Perdido Pass-Florida-Alabama line, Baldwin County	3.3 (2.0)	0 (0)	1.7 (1.0)	1.6 (1.0)
Alabama State Totals	42.0 (26.1)	5.4 (3.4)	8.2 (5.1)	28.3 (17.6)
Florida				
LOGG–T–FL–38: Perdido Key, Escambia County	20.2 (12.6)	11.0 (6.8)	2.5 (1.6)	6.7 (4.2)
LOGG–T–FL–39: Mexico Beach and St. Joe Beach, Bay and Gulf Counties	18.7 (11.7)	0 (0)	0 (0)	18.7 (11.7)
LOGG–T–FL–40: St. Joseph Peninsula, Gulf County	23.5 (14.6)	0 (0)	15.5 (9.7)	8.0 (4.9)
LOGG–T–FL–41: Cape San Blas, Gulf County	11.0 (6.8)	0 (0)	0.1 (0.1)	10.8 (6.7)
LOGG–T–FL–42: St. Vincent Island, Franklin County	15.1 (9.4)	15.1 (9.4)	0 (0)	0 (0)
LOGG–T–FL–43: Little St. George Island, Franklin County	15.4 (9.6)	0 (0)	15.4 (9.6)	0 (0)
LOGG–T–FL–44: St. George Island, Franklin County:	30.7 (19.1)	0 (0)	14.0 (8.7)	16.7 (10.4)
LOGG–T–FL–45: Dog Island, Franklin County	13.1 (8.1)	0 (0)	0 (0)	13.1 (8.1)
Florida State Totals	147.7 (91.8)	26.1 (16.2)	47.5 (29.5)	74.0 (46.0)
Northern Gulf of Mexico Recovery Unit Totals	218.0 (135.5)	59.0 (36.7)	55.8 (34.7)	103.2 (64.2)

Note: Linear distances may not sum due to rounding.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the loggerhead sea turtle, below. All units were occupied at the time of listing and are currently occupied. All units contain all of the PBFs and PCEs.

Northern Recovery Unit

North Carolina

LOGG–T–NC–01—Bogue Banks, Carteret County: This unit consists of 38.9 km (24.2 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway and Bogue Sound. The unit extends from Beaufort Inlet to Bogue Inlet. The unit includes lands from the MHW line landward to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion is Fort Macon State Park, which is managed by the North Carolina Division of Parks and Recreation. This unit supports expansion of nesting from an adjacent unit (LOGG–T–NC–02) that has high-density nesting by loggerhead

sea turtles in North Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–NC–02—Bear Island, Onslow County: This unit consists of 6.6 km (4.1 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway and salt marsh. The unit extends from Bogue Inlet to Bear Inlet. The unit includes lands from the MHW line landward to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). The island is managed by the North Carolina Division of Parks and Recreation as Hammocks Beach State Park. This unit has high-density nesting by loggerhead sea turtles in North Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–NC–03—Topsail Island, Onslow and Pender Counties: This unit consists of 35.0 km (21.8 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Chadwick Bay, Alligator Bay, Goose Bay, Rogers Bay, Everett Bay, Spicer Bay, Waters Bay, Stump Sound, Banks Channel, and salt marsh. The unit extends from New River Inlet to New Topsail Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The local municipality portion is the North Topsail Beach Park, which is managed by the Town of North Topsail Beach. This unit has high-density nesting by loggerhead sea turtles in North Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–NC–04—Lea-Hutaff Island, Pender County: This unit consists of 6.1 km (3.8 mi) of island shoreline along the Atlantic Ocean. Following the closure of Old Topsail Inlet in 1998, two islands, Lea Island and Hutaff Island, joined to form what is now a single island referred to as Lea-Hutaff Island. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Topsail Sound, Eddy Sound, Long Point Channel, Green Channel, and salt marsh. The unit extends from New Topsail Inlet to Rich Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion is part of the Lea Island State Natural Area, which includes most of the original Lea Island, and is owned by the North Carolina Division of Parks and Recreation and managed by Audubon North Carolina. The remainder of the original Lea Island is privately owned. The original Hutaff Island is entirely privately owned. This unit supports expansion of nesting from an adjacent unit (LOGG–T–NC–03) that has high-density nesting by loggerhead sea turtles in North Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, in-water and shoreline alterations, climate change, beach erosion, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–NC–05—Pleasure Island, New Hanover County: This unit consists of 18.6 km (11.5 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Cape Fear River, Upper Midnight Channel Range, Lower Midnight Channel Range, Reaves Point Channel Range, Horseshoe Shoal Channel Range, Snow Marsh Channel Range, and The Basin (bay). The unit extends from Carolina Beach Inlet to 33.91433 N, 77.94408 W (historic location of Corncake Inlet). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State, private, and other ownership (see Table 1). The State portion is Fort Fisher State Recreation Area, which is managed by the North Carolina Division of Parks and Recreation. The local municipality portion includes half of Freeman Park Recreation Area, which is managed by the Town of Carolina Beach. The County portion includes the other half of Freeman Park Recreation Area, which is also managed by the Town of Carolina Beach under an interlocal agreement with New Hanover County. This unit supports expansion of nesting from an adjacent unit (LOGG–T–NC–06) that has high-density nesting by loggerhead sea turtles in North Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–NC–06—Bald Head Island, Brunswick County: This unit consists of 15.1 km (9.4 mi) of island shoreline along the Atlantic Ocean. The island is part of the Smith Island Complex, which is a barrier spit that includes Bald Head, Middle, and Bluff Islands. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Cape Fear River, Battery Island Channel, Lower Swash Channel Range, Buzzard Bay, Smith Island Range, Southport Channel, and salt marsh. The unit extends from 33.91433 N, 77.94408W (historic location of Corncake Inlet) to the mouth of the Cape Fear River. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private and other ownership (see Table 1). The State portion is Bald Head State Natural Area. This unit has high-density nesting by loggerhead sea turtles in North Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–NC–07—Oak Island, Brunswick County: This unit consists of 20.9 km (13.0 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Cape Fear River, Eastern Channel, and salt marsh. The unit extends from the mouth of the Cape Fear River to Lockwoods Folly Inlet. The unit includes lands from the MHW line to the toe of the

secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). This unit has high-density nesting by loggerhead sea turtles in North Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–NC–08—Holden Beach, Brunswick County: This unit consists of 13.4 km (8.3 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Elizabeth River, Montgomery Slough, Boone Channel, and salt marsh. The unit extends from Lockwoods Folly Inlet to Shallotte Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–NC–07) that has high-density nesting by loggerhead sea turtles in North Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

South Carolina

LOGG–T–SC–01—North Island, Georgetown County: This unit consists of 13.2 km (8.2 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Winyah Bay, Mud Bay, Oyster Bay, and salt marsh. The unit extends from North Inlet to Winyah Bay. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is part of the Tom Yawkey Wildlife Center Heritage Preserve, which is managed by the SCDNR. This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–02) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, artificial lighting, habitat obstructions, human-caused disasters, and response to disasters. The Tom Yawkey Wildlife Center has a management plan that includes procedures for the implementation of sea turtle nesting surveys, nest marking, feral hog removal, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (Dozier 2006, pp. 31, 64–65).

LOGG–T–SC–02—Sand Island, Georgetown County: This unit consists of 4.7 km (2.9 mi) of island shoreline along the Atlantic Ocean and Winyah Bay. The island is separated from the mainland by the Atlantic Intracoastal Waterway and salt marsh. The unit extends from Winyah Bay to 33.17534 N, 79.19206 W (northern boundary of an unnamed inlet separating Sand Island and South Island). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is part of the Tom Yawkey Wildlife Center Heritage Preserve, which is managed by the SCDNR. This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, in-water and shoreline alterations, beach erosion, climate change, artificial lighting, human-caused disasters, and response to disasters. The Tom Yawkey Wildlife Center has a management plan that includes procedures for the implementation of sea turtle nesting surveys, nest marking, feral hog removal, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (Dozier 2006, pp. 31, 64–65).

LOGG–T–SC–03—South Island, Georgetown County: This unit consists of 6.7 km (4.2 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, North Santee Bay, and salt marsh. The unit extends from 33.17242 N, 79.19366 W (southern boundary of an unnamed inlet separating Sand Island and South Island) to North Santee Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is part of the Tom Yawkey Wildlife Center Heritage Preserve, which is managed by the SCDNR. This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, in-water and shoreline alterations, beach erosion, climate change, artificial lighting, human-caused disasters, and response to disasters. The Tom Yawkey Wildlife Center has a management plan that includes procedures for the implementation of sea turtle nesting surveys, nest marking, feral hog removal, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (Dozier 2006, pp. 31, 64–65).

LOGG–T–SC–04—Cedar Island, Georgetown County: This unit consists of 4.1 km (2.5 mi) of island shoreline along the Atlantic Ocean and North Santee Inlet. The island is separated from the mainland by the Atlantic Intracoastal Waterway and salt marsh. The unit extends from North Santee Inlet to South Santee Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is part of the Santee Coastal Reserve Wildlife Management Area, which is managed by the SCDNR. This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–03) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, habitat obstructions, human-caused disasters, and response to disasters. The Santee Coastal Reserve Wildlife Management Area has a draft management plan that includes recommendations to reduce sea turtle nest depredation by raccoons (SCDNR 2002, p. 21), but there is currently no other management for protection of loggerhead sea turtle nests.

LOGG–T–SC–05—Murphy Island, Charleston County: This unit consists of 8.0 km (5.0 mi) of island shoreline along the Atlantic Ocean and South Santee Inlet. The island is separated from the mainland by the Atlantic Intracoastal Waterway and inland marsh. The unit extends from South Santee Inlet to 33.08335 N, 79.34285 W. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is part of the Santee Coastal Reserve Wildlife Management Area, which is managed by the SCDNR. This unit

supports expansion of nesting from an adjacent unit (LOGG–T–SC–06) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, habitat obstructions, human-caused disasters, and response to disasters. The Santee Coastal Reserve Wildlife Management Area has a draft management plan that includes recommendations to reduce sea turtle nest depredation by raccoons (SCDNR 2002, p. 21), but there is currently no other management for protection of loggerhead sea turtle nests.

LOGG–T–SC–06—Cape Island, Charleston County: This unit consists of 8.3 km (5.1 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Cape Romain Harbor, coastal islands, and salt marsh. The unit extends from Cape Romain Inlet to 33.00988 N, 79.36529 W (northern boundary of an unnamed inlet between Cape Island and Lighthouse Island). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). It is the northernmost island in the Cape Romain National Wildlife Refuge (NWR), which is managed by USFWS. This unit has high-density nesting by loggerhead sea turtles in South Carolina. It is the highest nesting density beach in the Northern Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, in-water and shoreline alterations, beach erosion, climate change, human-caused disasters, and response to disasters. Cape Romain NWR has a Comprehensive Conservation Plan (CCP) that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, minimizing human disturbance, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2010a, pp. 45–46).

LOGG–T–SC–07—Lighthouse Island, Charleston County: This unit consists of 5.3 km (3.3 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from 33.01306 N, 79.36659 W (southern boundary of an unnamed inlet between Cape Island and Lighthouse Island) to Key Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). It is part of the Cape Romain NWR, which is managed by USFWS. This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, in-water and shoreline alterations, beach erosion, climate change, human-caused disasters, and response to disasters. Cape Romain NWR has a CCP that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, minimizing human disturbance, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2010a, pp. 45–46).

LOGG–T–SC–08—Raccoon Key, Charleston County: This unit consists of 4.8 km (3.0 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from Raccoon Creek Inlet to Five Fathom Creek Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). It is part of the Cape Romain NWR, which is managed by USFWS. This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–07) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, in-water and shoreline alterations, beach erosion, climate change, human-caused disasters, and response to disasters. Cape Romain NWR has a CCP that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, minimizing human disturbance, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2010a, pp. 45–46).

LOGG–T–SC–09—Folly Island, Charleston County: This unit consists of 11.2 km (7.0 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Folly River, a network of coastal islands, and salt marsh. The unit extends from Lighthouse Inlet to Folly River Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State, and private and other ownership (see Table 1). The Lighthouse Inlet Heritage Preserve, is owned by the County, with a 10 percent undivided interest from the South Carolina Department of Natural Resource. The Folly Beach County Park is owned by the County. Both are managed by the Charleston County Park and Recreation Commission. This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–10) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBF in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach sand placement activities, in-water and shoreline alterations, coastal development, beach erosion, climate change, artificial lighting, human-caused disasters, and response to disasters. The City of Folly Beach has a beach management plan that includes measures to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (City of Folly Beach 1991, pp. 32–35). These measures apply to both the private and other lands within this critical habitat unit.

LOGG–T–SC–10—Kiawah Island, Charleston County: This unit consists of 17.0 km (10.6 mi) of island shoreline along the Atlantic Ocean and Stono Inlet. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Wadmalaw Island, Johns Island, Kiawah River, and salt marsh. The unit extends from Stono Inlet to Captain Sam's Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The County portion includes Kiawah Beachwalker Park and Isle of Palms County Park, which are managed by the Charleston County Park and Recreation Commission. This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, beach erosion, climate change, human-caused disasters, and response to disasters. The Town of Kiawah Island has a Local Comprehensive Beach Management Plan that describes actions, such as nest monitoring, education, pet and vehicular restrictions, and a lighting ordinance, taken by the Town to minimize impacts to nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (Town of Kiawah Island 2006, pp. 4–11—4–13).

These measures apply to both the private and other lands within this critical habitat unit although the degree of implementation is uncertain.

LOGG–T–SC–11—Seabrook Island, Charleston County: This unit consists of 5.8 km (3.6 mi) of island shoreline along the Atlantic Ocean and North Edisto Inlet. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Wadmalaw Island, Johns Island, and salt marsh. The unit extends from Captain Sam's Inlet to North Edisto Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). This unit supports expansion of nesting from adjacent units (LOGG–T–SC–10 and LOGG–T–SC–12) that have high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, coastal development, beach erosion, climate change, artificial lighting, human-caused disasters, and response to disasters. The Town of Seabrook Island has a beach management plan that includes the implementation of sea turtle nesting surveys, nest marking, and actions to minimize human disturbance impacts to nesting and hatchling loggerhead sea turtles (Town Council of Seabrook 1991, p. 15). These measures apply to the private lands within this critical habitat unit although the degree of implementation is uncertain.

LOGG–T–SC–12—Botany Bay Island and Botany Bay Plantation, Charleston County: This unit consists of 6.6 km (4.1 mi) of island shoreline along the Atlantic Ocean and North Edisto Inlet. It includes the shoreline of Botany Bay Island and Botany Bay Plantation, which is located on the north end of Edisto Island. Botany Bay Island and Botany Bay Plantation were originally separated by South Creek Inlet. However, due to beach accretion on the south end of Botany Bay Island, it is now continuous with Botany Bay Plantation. This unit is separated from the mainland by the Atlantic Intracoastal Waterway, Ocella Creek, Townsend River, South Creek Inlet, a network of coastal islands, and salt marsh. The unit extends from North Edisto Inlet to 32.53710 N, 80.24614 W (northern boundary of an unnamed inlet separating Botany Bay Plantation and Interlude Beach). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private and other ownership (see Table 1). The Botany Bay Island portion is privately owned; however, the owner has placed a conservation easement on the property with The Nature Conservancy. The State portion is part of the Botany Bay Plantation Wildlife Management Area Heritage Preserve, which is managed by the SCDNR.

This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, beach erosion, climate change, habitat obstructions, human-caused disasters, and response to disasters. The Botany Bay Plantation Wildlife Management Area Heritage Preserve has a management plan that includes the implementation of sea turtle nesting surveys, nest marking, actions to minimize human disturbance, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (SCDNR 2009, p. 12).

LOGG–T–SC–13—Interlude Beach, Charleston County: This unit consists of 0.9 km (0.6 mi) of island shoreline along the Atlantic Ocean. This unit includes a section of Edisto Island, which is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from 32.53636 N, 80.24647 W (southern boundary of an unnamed inlet separating Interlude Beach and Botany Bay Plantation) to Frampton Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is part of the Botany Bay Plantation Wildlife Management Area Heritage Preserve, which is managed by the SCDNR. This unit supports expansion of nesting from adjacent units (LOGG–T–SC–12 and LOGG–T–SC–14) that have high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, beach erosion, climate change, human-caused disasters, and response to disasters. The Botany Bay Plantation Wildlife Management Area Heritage Preserve has a management plan that includes the implementation of sea turtle nesting surveys, nest marking, actions to minimize human disturbance, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (SCDNR 2009, p. 12).

LOGG–T–SC–14—Edingsville Beach, Charleston County: This unit consists of 2.7 km (1.7 mi) of island shoreline along the Atlantic Ocean. This unit includes a section of Edisto Island, which is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from Frampton Inlet to Jeremy Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, beach erosion, climate change, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–SC–15—Edisto Beach State Park, Colleton County: This unit consists of 2.2 km (1.4 mi) of island shoreline along the Atlantic Ocean. This unit includes a section of Edisto Island, which is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from Jeremy Inlet to 32.50307 N, 80.29625 W (State Park boundary separating Edisto Beach State Park and the Town of Edisto Beach). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is managed by the South Carolina Department of Parks, Recreation, and Tourism as the Edisto Beach State Park. This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, artificial lighting, human-caused disasters, and response to disasters. The Edisto Beach State Park has a General Management Plan that includes the implementation of sea turtle nesting surveys, nest marking, and education intended to minimize impacts to nesting and hatchling loggerhead sea turtles (Edisto Beach State Park 2010, pp. 17–18, 21–22).

LOGG–T–SC–16—Edisto Beach, Colleton County: This unit consists of 6.8 km (4.2 mi) of island shoreline along the Atlantic Ocean and South Edisto River. This unit includes a section of Edisto Island, which is separated from the mainland by the Atlantic Intracoastal Waterway, Big Bay Creek, a network of coastal islands, and salt marsh. The unit extends from 32.50307 N, 80.29625 W (State Park boundary

separating Edisto Beach State Park and the Town of Edisto Beach) to South Edisto Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. The unit occurs within the town limits of Edisto Beach. Land in this unit is in private and other ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–15) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, beach erosion, climate change, artificial lighting, human-caused disasters, and response to disasters. The Town of Edisto Beach has a Local Comprehensive Beach Management Plan that includes the implementation of sea turtle nesting surveys, nest marking, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (Town of Edisto Beach 2011, p. 25). These measures apply to the private lands within this critical habitat unit although the degree of implementation is uncertain.

LOGG–T–SC–17—Pine Island, Colleton County: This unit consists of 1.2 km (0.7 mi) of island shoreline along the South Edisto Inlet. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Fish Creek, a network of coastal islands, and salt marsh. The unit extends from South Edisto River to 32.49266 N, 80.36846 W (northern boundary of an unnamed inlet to Fish Creek). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is managed by the SCDNR as part of the Ashepoo-Combahee-Edisto (ACE) Basin National Estuarine Research Reserve (NERR). This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–18) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, habitat obstructions, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–SC–18—Otter Island, Colleton County: This unit consists of 4.1 km (2.5 mi) of island shoreline along the Atlantic Ocean and Saint Helena Sound. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Ashepoo River, a network of coastal islands, and salt marsh. The unit extends from Fish Creek Inlet to Saint Helena Sound. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). It is part of the St. Helena Sound Heritage Preserve and the ACE Basin Estuarine Research Reserve, which are managed by the SCDNR. This unit was occupied at the time of listing and is currently occupied. This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, beach erosion, climate change, habitat obstructions, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–SC–19—Harbor Island, Beaufort County: This unit consists of 2.9 km (1.8 mi) of island shoreline along the Atlantic Ocean and Saint Helena Sound. The island is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from Harbor Inlet to Johnson Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–18) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, artificial lighting, habitat obstructions, human-caused disasters, and response to disasters. Beaufort County has a Comprehensive Beach Management Plan that includes the implementation of sea turtle nesting surveys, nest marking, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (Beaufort County Planning Board 2010, p. 5–19). These measures apply to the private lands within this critical habitat unit.

LOGG–T–SC–20—Little Capers Island, Beaufort County: This unit consists of 4.6 km (2.9 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from ''Pritchards Inlet'' (there is some uncertainty about the true name of this water feature) located at 32.29009 N, 80.54459 W to Trenchards Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–21) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, artificial lighting, habitat obstructions, human-caused disasters, and response to disasters. Beaufort County has a Comprehensive Beach Management Plan that includes the implementation of sea turtle nesting surveys, nest marking, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (Beaufort County Planning Board 2010, p. 5–19). These measures apply to the private lands within this critical habitat unit.

LOGG–T–SC–21—St. Phillips Island, Beaufort County: This unit consists of 2.3 km (1.4 mi) of island shoreline along the Atlantic Ocean and Trenchards Inlet. The island is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from Trenchards Inlet to Morse Island Creek Inlet East. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). Although privately owned, the island is protected in perpetuity by a conservation easement with The Nature Conservancy. This unit has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, beach erosion, climate change, habitat obstructions, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–SC–22—Bay Point Island, Beaufort County: This unit consists of 4.3 km (2.7 mi) of island shoreline along the Atlantic Ocean and Port Royal Sound. The island is separated from the mainland by the Atlantic Intracoastal Waterway, a network of coastal islands, and salt marsh. The unit extends from Morse Island Creek Inlet East along the Atlantic Ocean shoreline to Morse Island Creek Inlet West along the Port

Royal Sound shoreline. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–SC–21) that has high-density nesting by loggerhead sea turtles in South Carolina. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, beach driving, beach erosion, climate change, habitat obstructions, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

Georgia

LOGG–T–GA–01—Little Tybee Island, Chatham County: This unit consists of 8.6 km (5.3 mi) of island shoreline along the Atlantic Ocean. Little Tybee Island is not a specific island, rather it is a complex of several small, low-lying islands, including Myrtle and Williamson Islands, that are separated by tidal flows, creeks, or sloughs. The island complex is separated from the mainland by the Atlantic Intracoastal Waterway, Tybee Creek, Bull River, a network of coastal islands, and salt marsh. The unit extends from Tybee Creek Inlet to Wassaw Sound. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). The island is owned by the GDNR and managed by The Nature Conservancy as the Little Tybee Island Natural Heritage Preserve. This unit supports expansion of nesting from an adjacent unit (LOGG–T–GA–02) that has high-density nesting by loggerhead sea turtles in Georgia. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, in-water and shoreline alterations, beach erosion, climate change, human-caused disasters, and response to disasters. The GDNR signed a Memorandum of Agreement with the USFWS, NPS, St. Catherines Island Foundation, Jekyll Island Authority, City of Tybee Island, Glynn County, Little Cumberland Island Homeowners Association, and Little St. Simons Island, Ltd. mandating that land owned by the State adhere to actions listed in the Management Plan for the Protection of Nesting Loggerhead Sea Turtles and their Habitat in Georgia. This includes working with partners on the implementation of sea turtle nesting surveys, nest marking and protection, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDRN 1994, pp. 6–9).

LOGG–T–GA–02—Wassaw Island, Chatham County: This unit consists of 10.1 km (6.3 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Romerly Marshes, Odingsell River, and a network of coastal islands. The unit extends from Wassaw Sound to Ossabaw Sound. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal and private ownership (see Table 1). The majority of the island is managed by USFWS as the Wassaw NWR. This unit has high-density nesting by loggerhead sea turtles in Georgia. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, habitat obstructions, human-caused disasters, and response to disasters.

Wassaw NWR is part of the Savannah Coastal Refuges Complex, which has a draft CCP that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2010b, pp. 37, 104). USFWS signed a Memorandum of Agreement with the GDNR, NPS, St. Catherines Island Foundation, Jekyll Island Authority, City of Tybee Island, Glynn County, Little Cumberland Island Homeowners Association, and Little St. Simons Island, Ltd. mandating that land owned by the Refuge adhere to actions listed in the Management Plan for the Protection of Nesting Loggerhead Sea Turtles and their Habitat in Georgia. This includes working with partners on the implementation of sea turtle nesting surveys, nest marking and protection, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 1994, pp. 6–9).

LOGG–T–GA–03—Ossabaw Island, Chatham County: This unit consists of 17.1 km (10.6 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Bear River, a network of coastal islands, and extensive salt marshes. Ossabaw Island is divided into four contiguous sections of beach: Bradley (North), North Middle, South Middle, and South beaches. The unit extends from Ogeechee River to St. Catherines Sound. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). The island is managed by the GDNR. This unit has high-density nesting by loggerhead sea turtles in Georgia. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach erosion, climate change, human-caused disasters, and response to disasters.

A Comprehensive Management Plan for Ossabaw Island includes actions to minimize human disturbance and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 2001, pp. 37, 40, 43). The GDNR signed a Memorandum of Agreement with the USFWS, NPS, St. Catherines Island Foundation, Jekyll Island Authority, City of Tybee Island, Glynn County, Little Cumberland Island Homeowners Association, and Little St. Simons Island, Ltd. mandating that land owned by the State adhere to actions listed in the Management Plan for the Protection of Nesting Loggerhead Sea Turtles and their Habitat in Georgia. This includes working with partners on the implementation of sea turtle nesting surveys, nest marking and protection, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 1994, pp. 6–9).

LOGG–T–GA–04—St. Catherines Island, Liberty County: This unit consists of 18.4 km (11.5 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, North Newport River, South Newport River, a network of coastal islands, and extensive salt marshes. The unit extends from St. Catherines Sound to Sapelo Sound. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private ownership (see Table 1). This unit supports expansion of nesting from adjacent units (LOGG–T–GA–03 and LOGG–T–GA–05) that have high-density nesting by loggerhead sea turtles in Georgia. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, habitat obstructions, beach erosion, climate change, human-caused disasters, and response to disasters. The St. Catherines Island Foundation signed a Memorandum of Agreement with the GDNR, USFWS, NPS, Jekyll Island Authority, City of Tybee Island, Glynn County, Little Cumberland Island Homeowners Association, and Little St. Simons

Island, Ltd. mandating that land owned by the Foundation adhere to actions listed in the Management Plan for the Protection of Nesting Loggerhead Sea Turtles and their Habitat in Georgia. This includes working with partners on the implementation of sea turtle nesting surveys, nest marking and protection, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 1994, pp. 6–9).

LOGG–T–GA–05—Blackbeard Island, McIntosh County: This unit consists of 13.5 km (8.4 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Blackbeard Creek, Mud River, a network of coastal islands, and extensive salt marshes. The unit extends from Sapelo Sound to Cabretta Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). The island is managed by USFWS as the Blackbeard Island NWR. This unit has high-density nesting by loggerhead sea turtles in Georgia. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, habitat obstructions, beach erosion, climate change, human-caused disasters, and response to disasters. Blackbeard Island NWR is part of the Savannah Coastal Refuges Complex, which has a draft CCP that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2010b, pp. 125, 136).

USFWS signed a Memorandum of Agreement with the GDNR, NPS, St. Catherines Island Foundation, Jekyll Island Authority, City of Tybee Island, Glynn County, Little Cumberland Island Homeowners Association, and Little St. Simons Island, Ltd. mandating that land owned by the Refuge adhere to actions listed in the Management Plan for the Protection of Nesting Loggerhead Sea Turtles and their Habitat in Georgia. This includes working with partners on the implementation of sea turtle nesting surveys, nest marking and protection, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 1994, pp. 6–9).

LOGG–T–GA–06—Sapelo Island, McIntosh County: This unit consists of 9.3 km (5.8 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Doboy Sound, Mud Creek, Teakettle Creek, a network of coastal islands, and extensive salt marshes. Sapelo Island is divided into two contiguous sections of beach: Nannygoat and Cabretta beaches. The unit extends from Cabretta Inlet to Doboy Sound. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). The island is managed by the GDNR. This unit supports expansion of nesting from an adjacent unit (LOGG–T–GA–05) that has high-density nesting by loggerhead sea turtles in Georgia. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, poaching, beach driving, predation, beach erosion, climate change, human-caused disasters, and response to disasters.

A Comprehensive Management Plan for Sapelo Island includes actions to minimize human disturbance and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 1998, pp. 5, 36, 55). The GDNR signed a Memorandum of Agreement with the USFWS, NPS, St. Catherines Island Foundation, Jekyll Island Authority, City of Tybee Island, Glynn County, Little Cumberland Island Homeowners Association, and Little St. Simons Island, Ltd. mandating that land owned by the State adhere to actions listed in the Management Plan for the Protection of Nesting Loggerhead Sea Turtles and their Habitat in Georgia. This includes working with partners on the implementation of sea turtle nesting surveys, nest marking and protection, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 1994, pp. 6–9).

LOGG–T–GA–07—Little Cumberland Island, Camden County: This unit consists of 4.9 km (3.0 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Cumberland River, and salt marsh. The unit extends from St. Andrew Sound to Christmas Creek. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private ownership (see Table 1). Although Little Cumberland Island is privately owned, it lies within the boundaries of Cumberland Island National Seashore and is recognized as a Special Use Zone where private property owners have entered into an agreement with the NPS. This unit supports expansion of nesting from an adjacent unit (LOGG–T–GA–08) that has high-density nesting by loggerhead sea turtles in Georgia. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, beach erosion, climate change, human-caused disasters, and response to disasters.

The Little Cumberland Island Homeowners Association signed a Memorandum of Agreement with the GDNR, USFWS, NPS, St. Catherines Island Foundation, Jekyll Island Authority, City of Tybee Island, Glynn County, and Little St. Simons Island, Ltd. mandating that land owned by the Association adhere to actions listed in the Management Plan for the Protection of Nesting Loggerhead Sea Turtles and their Habitat in Georgia. This includes working with partners on the implementation of sea turtle nesting surveys, nest marking and protection, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 1994, pp. 6–9).

LOGG–T–GA–08—Cumberland Island, Camden County: This unit consists of 29.7 km (18.4 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Cumberland River, Cumberland Sound, Brickhill River, a network of coastal islands, and extensive salt marsh. The unit extends from Christmas Creek to St. Marys River. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal and private ownership (see Table 1). The Federal portion is part of Cumberland Island National Seashore, which is managed by the NPS. This unit has high-density nesting by loggerhead sea turtles in Georgia. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, beach erosion, climate change, human-caused disasters, and response to disasters.

Cumberland Island National Seashore has a General Management Plan that includes predator removal and dune preservation intended to minimize impacts to nesting and hatchling loggerhead sea turtles (NPS 1984, pp. 22–23). The NPS signed a Memorandum of Agreement with the GDNR, USFWS, St. Catherines Island Foundation, Jekyll Island Authority, City of Tybee Island, Glynn County, and Little St. Simons Island, Ltd. mandating that land owned by the Cumberland Island National Seashore adhere to actions listed in the Management Plan for the Protection of

Nesting Loggerhead Sea Turtles and their Habitat in Georgia. This includes working with partners on the implementation of sea turtle nesting surveys, nest marking and protection, education, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (GDNR 1994, pp. 6–9).

Peninsular Florida Recovery Unit

Because of the removal of the originally proposed Unit LOGG–T–FL–02 and LOGG–T–FL–04 from the Peninsular Florida Recovery Unit, originally numbered Units LOGG–T–FL–01 to LOGG–T–FL–35 in this Recovery Unit have been renumbered in the final rule as Units LOGG–T–FL–01 to LOGG–T–FL–33.

Northern Florida Region

LOGG–T–FL–01—South Duval County Beaches—Duval and St. Johns County line: This unit consists of 11.5 km (7.1 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Pablo Creek, and Lake Ponte Vedra. The unit extends from the south boundary of Kathryn Abbey Hanna Park in Duval County to the Duval-St. Johns County line. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private ownership (see Table 1). This unit supports expansion of nesting from an adjacent beach (St. Johns County beaches) that has high-density nesting by loggerhead sea turtles in the Northern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, beach sand placement activities, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters.

This unit originally included the adjacent beaches in St. Johns County. However, those beaches have been excluded under Section 4(b)(2) of the Act because of their inclusion in the HCP for St. Johns County (see Exclusions Based on Other Relevant Impacts discussion below).

LOGG–T–FL–02—Fort Matanzas National Monument, St. Johns County: This unit consists of 1.4 km (0.9 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Matanzas River, which is part of the Atlantic Intracoastal Waterway. The unit extends from the northern boundary of Fort Matanzas National Monument to the southern boundary of Fort Matanzas National Monument. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). The Fort Matanzas National Monument is managed by the NPS. This unit supports expansion of nesting from adjacent units (St. Johns County beaches and LOGG–T–FL–03) that have high-density nesting by loggerhead sea turtles in the Northern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, beach sand placement activities, in-water and shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters.

Fort Matanzas National Monument has a General Management Plan that includes exotic organism removal if necessary and possible, which may protect nesting and hatchling loggerhead sea turtles (NPS 1982a, p. 27). This Management Plan is being revised.

This unit originally included the adjacent beaches in St. Johns County. However, those beaches have been excluded under Section 4(b)(2) of the Act because of their inclusion in the HCP for St. Johns County (see Exclusions Based on Other Relevant Impacts discussion below).

LOGG–T–FL–03—River to Sea Preserve at Marineland—North Peninsula State Park, Flagler and Volusia Counties: This unit consists of 31.8 km (19.8 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Matanzas River, which is part of the Atlantic Intracoastal Waterway, and Smith Creek. The unit extends from the north boundary of the River to Sea Preserve at Marineland to the south boundary of North Peninsula State Park. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State, private, and other ownership (see Table 1). The State portion is North Peninsula State Park, which is managed by FDEP. The County portion includes the River to Sea Preserve at Marineland and Varn Park, which are managed by the Flagler County Parks and Recreation Department. This unit has high-density nesting by loggerhead sea turtles in the Northern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, beach sand placement activities, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters.

The North Peninsula State Park Unit Management Plan addresses the species in the State portion of the unit. The Unit Management Plan includes procedures for the implementation of sea turtle nesting surveys, nest marking, removal of nonnative species (feral cats, feral hogs, and nine-banded armadillos) when encountered, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2006a, pp. 15–16).

Central Eastern Florida Region

LOGG–T–FL–04—Canaveral National Seashore North, Volusia County: This unit consists of 18.2 km (11.3 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Mosquito Lagoon, and a network of coastal islands. The unit extends from the north boundary of Canaveral National Seashore to the Volusia-Brevard County line. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). It is part of the Canaveral National Seashore, which is managed by the NPS. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–05) that has high-density nesting by loggerhead sea turtles in the Central Eastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, human-caused disasters, and response to disasters. Canaveral National Seashore has a General Management Plan that includes beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 1982b, p. 52).

LOGG–T–FL–05—Canaveral National Seashore South-Merritt Island NWR–Kennedy Space Center, Brevard County: This unit consists of 28.4 km (17.6 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Mosquito Lagoon, Indian River Lagoon, Merritt Island, and scattered coastal islands. The unit extends from the Volusia-Brevard

County line to the south boundary of Merritt Island NWR–Kennedy Space Center (Merritt Island NWR was established in 1963 as an overlay of the National Aeronautics and Space Administration's (NASA) John F. Kennedy Space Center). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). The northern portion is part of the Canaveral National Seashore in Brevard County, which is managed by the NPS. The southern portion is part of Merritt Island NWR–Kennedy Space Center, which is managed by USFWS. This unit has high-density nesting by loggerhead sea turtles in the Central Eastern Florida Region of the Peninsular Florida Recovery Unit. (Note: Although the mean nesting densities in this unit were not in the top 25 percent of nesting for the Central Eastern Florida Region, the unit was included because of the still high nesting density that occurs here and to ensure a good spatial distribution of nesting within this region.)

The PBFs in this unit may require special management considerations or protections to ameliorate the threats of predation, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. Canaveral National Seashore has a General Management Plan that includes beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 1982b, p. 52). Merritt Island NWR has a CCP that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2008a, pp. 82, 93–94).

LOGG–T–FL–06—Central Brevard Beaches, Brevard County: This unit consists of 19.5 km (12.1 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Indian River Lagoon, Banana River, and Merritt Island. The unit extends from the south boundary of Patrick Air Force Base to the north boundary of Archie Carr NWR. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The County portion includes Paradise Beach North, Spessard Holland North Beach Park, Spessard Holland South Beach Park, and Ocean Ridge Sanctuary, which are managed by the Brevard County Parks and Recreation Department. This unit has high-density nesting by loggerhead sea turtles in the Central Eastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, coastal development, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–07—South Brevard Beaches, Brevard County: This unit consists of 20.8 km (12.9 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Indian River Lagoon, and scattered coastal islands. The unit extends from the north boundary of Archie Carr NWR to Sebastian Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal, State, private, and other ownership (see Table 1). The Federal portion is part of Archie Carr NWR, which is managed by USFWS. The State portion is part of Sebastian Inlet State Park, which is managed by FDEP. The Brevard County portion includes Sea Oats Park, Coconut Point Park, Ponce Landing and Coconut Point Sanctuary, Twin Shores Park, Hog Point Sanctuary, Apollo Eleven Park, Martine Hammock Sanctuary, Judith Resnick Memorial Park, Barrier Island Ecosystem Center, and Louis Bonsteel III Memorial Park, which are managed by the Brevard County Parks and Recreation Department. This unit has high-density nesting by loggerhead sea turtles in the Central Eastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters.

Archie Carr NWR has a CCP that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, minimizing human disturbance, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2008b, pp. 74–76). Sebastian Inlet State Park has a Unit Management Plan that includes procedures for the implementation of sea turtle nesting surveys, nest marking, nonnative species removal when encountered (feral cats, feral hogs, and nine-banded armadillos), problem native species removal (raccoons), and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2008a, pp. 39–41).

LOGG–T–FL–08—Sebastian Inlet State Park-Archie Carr NWR South, Indian River County: This unit consists of 4.1 km (2.6 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Indian River Lagoon, Indian River Narrows, a network of coastal islands, and salt marsh. The unit includes Sebastian Inlet State Park and parcels within the Archie Carr NWR. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal and State ownership (see Table 1). The Federal portion is part of Archie Carr NWR, which is managed by USFWS. The State portion is part of Sebastian Inlet State Park, which is managed by the FDEP. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–07) that has high-density nesting by loggerhead sea turtles in the Central Eastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters.

The Archie Carr NWR has a CCP that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, minimizing human disturbance, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2008b, pp. 74–76). The Sebastian Inlet State Park has a Unit Management Plan that includes procedures for the implementation of sea turtle nesting surveys, nest marking, removal of nonnative species (feral cats, feral hogs, and nine-banded armadillos) when encountered and problem native species (raccoons), and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2008a, pp. 39–41).

Southeastern Florida Region

LOGG–T–FL–09—Fort Pierce Inlet-St. Lucie Inlet, St. Lucie and Martin Counties: This unit consists of 35.2 km (21.9 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway and the Indian River Lagoon. The unit extends from

Fort Pierce Inlet to St. Lucie Inlet. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The St. Lucie County portion includes Blind Creek Natural Area and John Brooks Park, which are managed by the St. Lucie County Environmental Resources Department. The St. Lucie County portion also includes Fredrick Douglas Memorial Park, Ocean Bay, Blind Creek Beach, and Dollman Tract, which are managed by the St. Lucie Parks, Recreation, and Facility Department. The Martin County portion includes Glasscock Beach Park, Sea Turtle Park, Jensen Beach Park, Muscara, Bob Graham Beach Park, Curtis Beach Park, Beachwalk Pasley, Bryn Mawr Beach, Virginia Forrest Beach Park, Tiger Shores Beach, Stuart Beach Park and Addition, Santa Lucea, Olsen Property, Clifton S. Perry Beach, House of Refuge Park, Chastain Beach Park, and Bathtub Beach Park, which are managed by the Martin County Parks and Recreation Department.

This unit has high-density nesting by loggerhead sea turtles in the Southeastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. John Brooks Park has a management plan that includes protection of nests and nonnative species removal to minimize impacts to nesting and hatchling loggerhead sea turtles (St. Lucie County Environmental Resources Department 2008, p. 29). Blind Creek Natural Area has a draft management plan that includes nonnative plant (*Casuarina equisetifolia* (Australian pine)) removal to minimize impacts to nesting and hatchling loggerhead sea turtles (St. Lucie County Environmental Resources Department 2011, p. 26).

LOGG–T–FL–10—St. Lucie Inlet-Jupiter Inlet, Martin and Palm Beach Counties: This unit consists of 24.9 km (15.5 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Great Pocket, Peck Lake, Hobe Sound, South Jupiter Narrows, Jupiter Sound, and a network of coastal islands. The unit extends from St. Lucie Inlet to Jupiter Inlet. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal, State, private, and other ownership (see Table 1). The Federal portion is Hobe Sound NWR, which is managed by USFWS. The State portion is St. Lucie Inlet Preserve State Park, which is managed by FDEP. The County portion is Coral Cove Park, which is managed by the Palm Beach County Parks and Recreation Department. A portion of the private lands includes Blowing Rocks Preserve, which is owned and managed by The Nature Conservancy. This unit has high-density nesting by loggerhead sea turtles in the Southeastern Florida Region of the Peninsular Florida Recovery Unit.

The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. Hobe Sound NWR has a CCP that includes working with partners on the implementation of sea turtle nesting surveys, nest marking, education, nonnative species removal, and minimizing human disturbance intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2006, pp. 81–86). St. Lucie Inlet Preserve State Park has a Unit Management Plan that includes maintaining a long-term data set of sea turtle nests, removal of nonnative species (feral cats) when encountered and problem native species (raccoons), and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2002a, pp. 20–21).

LOGG–T–FL–11—Jupiter Inlet–Lake Worth Inlet, Palm Beach County: This unit consists of 18.8 km (11.7 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Lake Worth Creek, Lake Worth, Munyon Island, Little Munyon Island, Singer Island, and Peanut Island. The unit extends from Jupiter Inlet to Lake Worth Inlet. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State, private, and other ownership (see Table 1). The State portion is John D. MacArthur Beach State Park, which is managed by FDEP. The County portion includes Jupiter Beach Park, Carlin Park, Radnor, Juno Dunes Natural Area, and Loggerhead Park, which are managed by the Palm Beach County Parks and Recreation Department. This unit was occupied at the time of listing and is currently occupied. This unit has high-density nesting by loggerhead sea turtles in the Southeastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach placement activities, in-water and shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. John D. MacArthur Beach State Park has a Unit Management Plan that includes procedures for the implementation of sea turtle nesting surveys, nest marking, artificial lighting management, problem species removal, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2005a, pp. 20–21).

LOGG–T–FL–12—Lake Worth Inlet–Boynton Inlet, Palm Beach County: This unit consists of 24.3 km (15.1 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Lake Worth, and scattered coastal islands. The unit extends from Lake Worth Inlet to Boynton Inlet. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private ownership (see Table 1). This unit has high-density nesting by loggerhead sea turtles in the Southeastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–13—Boynton Inlet–Boca Raton Inlet, Palm Beach County: This unit consists of 22.6 km (14.1 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Lake Rogers, Lake Wyman, and Lake Boca Raton. The unit extends from Boynton Inlet to Boca Raton Inlet. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The County portion is Ocean Ridge Hammock Park, which is managed by the Palm Beach County Parks and Recreation Department. The

municipality portion includes Spanish River Park, Red Reef Park, and South Beach Park, which are managed by the City of Boca Raton. This unit supports expansion of nesting from adjacent units (LOGG–T–FL–12 and LOGG–T–FL–14) that have high-density nesting by loggerhead sea turtles in the Southeastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–14—Boca Raton Inlet–Hillsboro Inlet, Palm Beach and Broward Counties: This unit consists of 8.3 km (5.2 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway and the Hillsboro River. The unit extends from Boca Raton Inlet to Hillsboro Inlet. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The County portion is South Inlet Park, which is managed by the Palm Beach County Parks and Recreation Department. This unit has high-density nesting by loggerhead sea turtles in the Southeastern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–15—Long Key, Monroe County: This unit consists of 4.2 km (2.6 mi) of island shoreline along the Atlantic Ocean. The island 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). This unit extends from the natural channel between Fiesta Key and Long Key to the natural channel between Long Key and Conch Key. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). The island is managed by FDEP as Long Key State Park. This unit was included to ensure conservation of the unique nesting habitat in the Florida Keys. Nesting beaches in the Florida Keys are unique from the other beaches in the Peninsular Florida Recovery Unit in that they are limestone islands with narrow, low-energy beaches (beaches where waves are not powerful); they have carbonate sands; and they are relatively close to the major offshore currents that facilitate the dispersal of post-hatchling loggerheads. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, sand beach placement activities, climate change, beach erosion, human-caused disasters, and response to disasters. Long Key State Park has a Unit Management Plan that includes procedures for the implementation of sea turtle nesting surveys, nest marking, problem species removal, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2004, pp. 18–19).

LOGG–T–FL–16—Bahia Honda Key, Monroe County: This unit consists of 3.7 km (2.3 mi) of island shoreline along the Atlantic Ocean. The island 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 (Ohio Key to the north and Spanish Harbor Key to the south). This unit extends from the natural channel between Ohio Key and Bahia Honda Key to the natural channel between Bahia Honda Key and Spanish Harbor Key. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). The island is managed by FDEP as Bahia Honda State Park. This unit was included to ensure conservation of the unique nesting habitat in this Florida Keys. Nesting beaches in the Florida Keys are unique from the other beaches in the Peninsular Florida Recovery Unit in that they are limestone islands with narrow, low-energy beaches; they have carbonate sands; and they are relatively close to the major offshore currents that are known to facilitate the dispersal of post-hatchling loggerheads. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, human-caused disasters, and response to disasters. Bahia Honda State Park has a Unit Management Plan that includes procedures for the implementation of sea turtle nesting surveys and nest marking intended to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2003a, pp. 18–20).

Central Western Florida Region

LOGG–T–FL–17—Longboat Key, Manatee and Sarasota Counties: This unit consists of 16.0 km (9.9 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by Sarasota Pass. The unit extends from Longboat Pass to New Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–18) that has high-density nesting by loggerhead sea turtles in the Central Western Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–18—Siesta and Casey Keys, Sarasota County: This unit consists of 20.8 km (13.0 mi) of island shoreline along the Gulf of Mexico. It includes the shoreline of Siesta Key and Casey Key, which were originally two separate islands divided by Midnight Pass. When Midnight Pass was closed in 1983, the two islands were combined into a single island. The island is separated from the mainland by the Intracoastal Waterway, Roberts Bay, Little Sarasota Bay, Dryman Bay, Blackburn Bay, and scattered coastal islands. The unit extends from Big Sarasota Pass to Venice Inlet. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The County portion includes Turtle Beach County Park and Palmer Point County Park, which are managed by the Sarasota County Parks and Recreation Department. This unit has high-density nesting by loggerhead sea turtles in the Central Western Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational

use, predation, beach sand placement activities, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–19—Venice Beaches and Manasota Key, Sarasota and Charlotte Counties: This unit consists of 26.0 km (16.1 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Intracoastal Waterway, Roberts Bay, Red Lake, Lemon Bay, and scattered coastal islands. The unit extends from Venice Inlet to Stump Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State, private, and other ownership (see Table 1). The State portion is Stump Pass Beach State Park, which is managed by FDEP. The Sarasota County portion includes Service Club Park, Brohard Beach, Paw Beach, Caspersen Beach County Park, and Blind Pass Park, which are managed by the Sarasota County Parks and Recreation Department. This unit has high-density nesting by loggerhead sea turtles in the Central Western Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. Stump Pass Beach State Park has a Unit Management Plan that includes procedures for the implementation of sea turtle nesting surveys, nest marking, education, problem species (raccoons) removal, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2003b, pp. 4–5).

LOGG–T–FL–20—Knight, Don Pedro, and Little Gasparilla Islands, Charlotte County: This unit consists of 10.8 km (6.7 mi) of island shoreline along the Gulf of Mexico. It includes the shoreline of Knight Island, Don Pedro Island, and Little Gasparilla Island, which were originally three separate islands divided by passes. When the passes closed during the 1960s, the three islands were combined into a single island. The island is separated from the mainland by the Intracoastal Waterway, Lemon Bay, Placida Harbor, and scattered keys and islands. The unit extends from Stump Pass to Gasparilla Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion is Don Pedro Island State Park, which is managed by FDEP. This unit has high-density nesting by loggerhead sea turtles in the Central Western Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. Don Pedro Island State Park has a Unit Management Plan that includes procedures for the implementation of nesting surveys, nest marking, education, problem species removal, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2001a, pp. 16–20).

LOGG–T–FL–21—Gasparilla Island, Charlotte and Lee Counties: This unit consists of 11.2 km (6.9 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Intracoastal Waterway, Gasparilla Sound, Charlotte Harbor, Turtle Bay, Bull Bay, and a network of keys. The unit extends from Gasparilla Pass to Boca Grande Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion is Gasparilla Island State Park, which is managed by FDEP. This unit has high-density nesting by loggerhead sea turtles in the Central Western Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. Gasparilla Island State Park has a Unit Management Plan that includes procedures for the implementation of nesting surveys, nest marking, terrestrial predator control, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2002b, p. 4).

LOGG–T–FL–22—Cayo Costa, Lee County: This unit consists of 13.5 km (8.4 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Intracoastal Waterway, Pine Island Sound, Matlacha Pass, Pelican Bay, Primo Bay, Pine Island, Little Pine Island, and numerous smaller keys and islands. The unit extends from Boca Grande Pass to Captiva Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion is Cayo Costa State Park, which is managed by FDEP. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–21) that has high-density nesting by loggerhead sea turtles in the Central Western Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, in-water and shoreline alterations, climate change, beach erosion, human-caused disasters, and response to disasters. Cayo Costa State Park has a Unit Management Plan that includes procedures for the implementation of nesting surveys, nest marking, terrestrial predator control, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2005b, pp. 14, 30).

LOGG–T–FL–23—Captiva Island, Lee County: This unit consists of 7.6 km (4.7 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Intracoastal Waterway, Pine Island Sound, Matlacha Pass, San Carlos Bay, Pine Island, and scattered keys and islands. The unit extends from Redfish Pass to Blind Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–24) that has high-density nesting by loggerhead sea turtles in the Central Western Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–24—Sanibel Island West, Lee County: This unit consists of 12.2 km (7.6 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Intracoastal Waterway, San Carlos Bay, Pine Island Sound, Matlacha Pass, Pine Island, and

numerous keys and islands. The unit extends from Blind Pass to Tarpon Bay Road. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The municipality portion includes Silver Key and Bowman's Beach Regional Park, which are managed by the City of Sanibel Natural Resources Department. This unit has high-density nesting by loggerhead sea turtles in the Central Western Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

Southwestern Florida Region

LOGG–T–FL–25—Little Hickory Island, Lee and Collier Counties: This unit consists of 8.7 km (5.4 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by Estero Bay, Hogue Channel, Fish Trap Bay, Little Hickory Bay, Big Hickory Island, and extensive mangroves and mangrove islands. The unit extends from Big Hickory Pass to Wiggins Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private and other ownership (see Table 1). The Collier County portion is Barefoot Beach County Preserve Park, which is managed by the Collier County Parks and Recreation Department. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–24) that has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, habitat obstructions, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–26—Wiggins Pass—Clam Pass, Collier County: This unit consists of 7.7 km (4.8 mi) of mainland shoreline along the Gulf of Mexico. This section of the mainland is bounded on the west by Vanderbilt Channel, Vanderbilt Lagoon, Inner Clam Bay, and extensive mangrove vegetative shorelines. The unit extends from Wiggins Pass to Clam Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State, private, and other ownership (see Table 1). The State portion is Delnor–Wiggins Pass State Park, which is managed by FDEP. The County portion is Vanderbilt Beach County Park, which is managed by the Collier County Parks and Recreation Department. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–28) that has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. Delnor–Wiggins Pass State Park has a Unit Management Plan that includes procedures for the implementation of nesting surveys, nest marking, terrestrial predator control, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2009, pp. 16–23).

LOGG–T–FL–27—Clam Pass—Doctors Pass, Collier County: This unit consists of 4.9 km (3.0 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by Moorings Bay, Outer Doctors Bay, Inner Doctors Bay, Venetian Bay, and Outer Clam Bay. The unit extends from Clam Pass to Doctors Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–28) that has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–28–Keewaydin Island and Sea Oat Island, Collier County: This unit consists of 13.1 km (8.1 mi) of island shoreline along the Gulf of Mexico. These islands are separated from the mainland by Dollar Bay, Bartell Bay, Periwinkle Bay, Rookery Bay, Hall Bay, Nature Conservancy Bay, Johnson Bay, Shell Bay, Sand Hill Bay, Hall Bay, Little Marco Pass, and a network of mangroves, coastal islands, and salt marsh. The unit extends from Gordon Pass to Big Marco Pass. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State and part of the private ownership (National Audubon Society) portions are part of the Rookery Bay National Estuarine Research Reserve (NERR), which is managed by FDEP's Office of Coastal and Aquatic Managed Areas. This unit has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, in-water and shoreline alterations, beach sand placement activities, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. Rookery Bay NERR has a management plan that includes working with partners for the implementation of nesting surveys, nest marking, terrestrial predator control, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2012a, pp. 62–77, 223, 269).

LOGG–T–FL–29—Cape Romano, Collier County: This unit consists of 9.2 km (5.7 mi) of island shoreline along the Gulf of Mexico and Gullivan Bay. Cape Romano is a coastal island complex within the Rookery Bay National Estuarine Research Reserve (NERR) and is located off the southwest coast of Florida in Collier County. Loggerhead sea turtle nesting has been regularly monitored and documented within this island complex. This island complex is separated from the mainland by Caxambas Bay, Grassy Bay, Barfield Bay, Goodland Bay, Gullivan Bay, and a network of other keys and islands. From north to south, the islands and keys included in this unit are: Kice Island, Big Morgan Island, Morgan Keys, Carr Island, and Cape Romano Island. Kice Island is in State ownership and is part of Rookery Bay NERR. It has 3.9 km (2.4 mi) of shoreline. Big Morgan Island is in State ownership (as part of Rookery Bay NERR) and other ownership. It has 1.4 km (0.9 mi) of shoreline. Morgan

Key is in State ownership (as part of Rookery Bay NERR) and other ownership. It has 0.7 km (0.4 mi) of shoreline. Carr Island is in State ownership and is part of Rookery Bay NERR. It has 0.3 km (0.2 mi) of shoreline. Cape Romano is in State ownership (as part of Rookery Bay NERR) and other ownership. It has 2.9 km (1.8 mi) of shoreline. The unit extends from Caxambas Pass to Gullivan Bay. This unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and other ownership (see Table 1). The State portion is part of the Rookery Bay NERR, which is owned by the State of Florida and managed by FDEP's Office of Coastal and Aquatic Managed Areas.

This unit has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, human-caused disasters, and response to disasters. Rookery Bay NERR has a management plan that includes working with partners such as the Conservancy of Southwest Florida for the implementation of nesting surveys, nest marking, terrestrial predator control, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2012a, pp. 62–77, 223, 269).

LOGG–T–FL–30—Ten Thousand Islands North, Collier County: This unit consists of 7.8 km (4.9 mi) of island shoreline along the Gulf of Mexico. The Ten Thousand Islands are a chain of islands and mangrove islets off the southwest coast of Florida in Collier and Monroe Counties. This unit includes 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 National Estuarine Research Reserve (NERR). These keys are separated from the mainland by Sugar Bay, Palm Bay, Blackwater Bay, Buttonwood Bay, Pumpkin Bay, Santina Bay, and a network of keys and islands. From west to east and north to south, these nine keys are: Coon Key, Brush Island, B Key, Turtle Key, Gullivan Key, White Horse Key, Hog Key, Panther Key, and Round Key.

Coon Key is part of Ten Thousand Islands NWR and has 0.4 km (0.2 mi) of shoreline. Brush Island is in State ownership and is part of Rookery Bay NERR. It has 0.6 km (0.4 mi) of shoreline. B Key (25.89055 N, 81.59641 W) is in Federal and State ownership and is part of both Ten Thousand Islands NWR and Rookery Bay NERR. It has 0.5 km (0.3 mi) of shoreline. Turtle Key is in State ownership and is part of Rookery Bay NERR. It has 0.5 km (0.3 mi) of shoreline. Gullivan Key is in State ownership and is part of Rookery Bay NERR. It has 1.1 km (0.7 mi) of shoreline. White Horse Key is in State ownership and is part of Rookery Bay NERR. It has 1.6 km (1.0 mi) of shoreline. Hog Key is in Federal and State ownership and is part of both Ten Thousand Islands NWR and Rookery Bay NERR. It has 0.9 km (0.6 mi) of shoreline. Panther Key is in Federal ownership and is part of Ten Thousand Islands NWR. It has 2.0 km (1.3 mi) of shoreline. Round Key is in Federal ownership and is part Ten Thousand Islands NWR. It has 0.3 km (0.2 mi) of shoreline.

The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal and State ownership (see Table 1). The Ten Thousand Islands NWR portion is managed by USFWS. The Rookery Bay NERR portion is managed by FDEP's Office of Coastal and Aquatic Managed Areas. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–29) that has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, human-caused disasters, and response to disasters. Rookery Bay NERR has a management plan that includes working with partners for the implementation of nesting surveys, nest marking, terrestrial predator control, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2012a, pp. 62–77, 223, 269). Thousand Islands NWR has a CCP that includes implementation of nesting surveys, nest marking, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2001, pp. 12, 20–22).

LOGG–T–FL–31—Highland Beach, Monroe County: This unit consists of 7.2 km (4.5 mi) of island (Key McLaughlin) shoreline along the Gulf of Mexico. The island is separated from the mainland by Rogers River Bay, Big Bay, Big Lostmans Bay, extensive salt marsh, and a network of keys and islands. The unit extends from First Bay to Rogers River Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). It is part of the Everglades National Park, which is managed by the NPS. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–32) that has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, climate change, beach erosion, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–32—Graveyard Creek-Shark Point, Monroe County: This unit consists of 0.9 km (0.6 mi) of mainland shoreline along the Gulf of Mexico. The unit extends from Shark Point (25.38796 N, 81.14933 W) to Graveyard Creek Inlet. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). It is part of the Everglades National Park, which is managed by the NPS. This unit has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–FL–33—Cape Sable, Monroe County: This unit consists of 21.3 km (13.2 mi) of mainland shoreline along the Gulf of Mexico. The unit extends from the north boundary of Cape Sable at 25.25924 N, 81.16687 W to the south boundary of Cape Sable at 25.12470 N, 81.06681 W. Land in this unit is in Federal ownership (see Table 1). It is part of the Everglades National Park, which is managed by the NPS. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. This unit has high-density nesting by loggerhead sea turtles in the Southwestern Florida Region of the Peninsular Florida Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, human-caused disasters, and

response to disasters. At this time, we are not aware of any management plans that address this species in this area.

Dry Tortugas Recovery Unit

Because of the removal of the originally proposed Unit LOGG–T–FL–02 and LOGG–T–FL–04 from the Peninsular Florida Recovery Unit, originally numbered Units LOGG–T–FL–36 to LOGG–T–FL–39 in the Dry Tortugas Recovery Unit have been renumbered in the final rule as Units LOGG–T–FL–34 to LOGG–T–FL–37.

LOGG–T–FL–34—Dry Tortugas, Monroe County: This unit consists of 5.7 km (3.6 mi) of shoreline along the Gulf of Mexico. The Dry Tortugas are a small group of seven islands located at the end of the Florida Keys about 108 km (67 mi) west of Key West. This unit includes 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. Loggerhead Key is the largest island in the chain and has 2.4 km (1.5 mi) of beach. Garden Key, the second largest island in the chain, is 4.0 km (2.5 mi) east of Loggerhead Key and has 0.2 km (0.1 mi) of beach. Bush Key is located 0.1 km (0.1 mi) east of Garden Key and has 2.0 km (1.3 mi) of beach; Bush Key is occasionally connected to Garden Key by a sand bar. Long Key is located 0.1 km (0.1 mi) south of the eastern end of Bush Key and has 0.3 km (0.2 mi) of beach; Long Key is occasionally connected to Bush Key by a sand bar. Hospital Key is located 2.5 km (1.6 mi) northeast of Garden Key and Bush Key and has 0.2 km (0.1 mi) of beach. East Key is located 0.6 km (0.3 mi) east of Middle Key (Middle Key is not included in the unit) and has 0.6 km (0.3 mi) of beach.

The unit includes lands from the MHW line to the toe of the secondary dune or developed structures (such as a sea plane landing area, fort walls). Land in this unit is in Federal ownership (see Table 1). It is part of the Dry Tortugas National Park, which is managed by the NPS. This unit was included because of the extremely small size of the Dry Tortugas Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, habitat obstructions, human-caused disasters, and response to disasters. Dry Tortugas National Park has a General Management Plan that includes special protection zones intended to manage the beach to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 2000, p. 38).

LOGG–T–FL–35—Marquesas Keys, Monroe County: This unit consists of 5.6 km (3.5 mi) of shoreline along the Gulf of Mexico. The Marquesas Keys are a small group of eight islands located at the end of the Florida Keys about 29.3 km (18.2 mi) west of Key West. This unit includes 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. Marquesas Key is the largest key in the northeastern region of the island group and has 3.8 km (2.4 mi) of shoreline. Unnamed Keys 1, 2, and 3 are at the far westernmost side of the island group. Unnamed Key 1 is the northernmost key of the three and has 0.4 km (0.2 mi) of shoreline. Unnamed Key 2 is just south of Unnamed Key 1 and has 1.0 km (0.6 mi) of shoreline. Unnamed Key 3 is southwest of Unnamed Key 2 and has 0.5 km (0.3 mi) of shoreline.

The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). The Marquesas Keys are part of the Key West NWR, which is managed by USFWS. This unit was included because of the extremely small size of the Dry Tortugas Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, climate change, beach erosion, human-caused disasters, and response to disasters. Key West NWR is included within the Lower Florida Keys National Wildlife Refuges Comprehensive Conservation Plan, which includes implementation of nesting surveys, nest marking, debris removal, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2009, pp. 67–68).

LOGG–T–FL–36—Boca Grande Key, Monroe County: This unit consists of 1.3 km (0.8 mi) of island shoreline along the Gulf of Mexico. Boca Grande Key is one of the outlying islands of the Florida Keys and is located about 18.9 km (11.7 mi) west of Key West. The unit extends from 24.53767 N, 82.00763 W (at the northern end of the key) to 24.52757 N, 82.00581 W (at the southern end of the key). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). It is part of the Key West NWR, which is managed by USFWS. This unit was included because of the extremely small size of the Dry Tortugas Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, climate change, beach erosion, human-caused disasters, and response to disasters. Key West NWR is included within the Lower Florida Keys National Wildlife Refuges Comprehensive Conservation Plan, which includes implementation of nesting surveys, nest marking, debris removal, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2009, pp. 67–68).

LOGG–T–FL–37—Woman Key, Monroe County: This unit consists of 1.3 km (0.8 mi) of island shoreline along the Gulf of Mexico. Woman Key is one of the outlying islands of the Florida Keys and is located about 15.9 km (9.9 mi) west of Key West. The unit extends from 24.52452 N, 81.97893 W (at the western end of the key) to 24.52385 N, 81.96680 W (at the eastern end of the key). The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). It is part of the Key West NWR, which is managed by USFWS. This unit was included because of the extremely small size of the Dry Tortugas Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, climate change, beach erosion, human-caused disasters, and response to disasters. Key West NWR is included within the Lower Florida Keys National Wildlife Refuges Comprehensive Conservation Plan, which includes implementation of nesting surveys, nest marking, debris removal, and predator removal intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2009, pp. 67–68).

Northern Gulf of Mexico Recovery Unit

Mississippi

LOGG–T–MS–01—Horn Island, Jackson County: This unit consists of 18.6 km (11.5 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Gulf Intracoastal Waterway, Mississippi Sound, Pascagoula Bay, and scattered coastal islands. The unit extends from Dog Keys Pass to the easternmost point of the ocean facing island shore. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal and private ownership (see Table 1). The Federal portion is part of the Gulf Islands National Seashore, Mississippi District, which is managed

by the NPS. Nesting was confirmed by weekly aerial surveys prior to 2006. Although regular surveys have not been conducted since 2005, loggerhead nesting was documented in 2010 and 2011 during the Deepwater Horizon event response efforts. This unit was included because Horn Island has been documented as one of two islands in Mississippi with the greatest number of nests.

The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, human-caused disasters, and response to disasters. The existing Gulf Islands National Seashore General Management Plan includes controlling nonnative species to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 1978, p. 46). The management plan is being revised and a draft is under review. The draft Gulf Islands National Seashore General Management Plan includes management efforts that would emphasize sea turtle nest monitoring and closure areas around nests intended to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 2011, p. 85).

LOGG–T–MS–02—Petit Bois Island, Jackson County: This unit consists of 9.8 km (6.1 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Gulf Intracoastal Waterway, Mississippi Sound, Point Aux Chenes Bay, scattered coastal islands, and salt marsh. The unit extends from Horn Island Pass to Petit Bois Pass. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). Petit Bois Island is part of the Gulf Islands National Seashore, Mississippi District, which is managed by the NPS. Nesting was confirmed by weekly aerial surveys prior to 2006. Although regular surveys have not been conducted since 2005, loggerhead nesting was documented in 2010 and 2011 during Deepwater Horizon event response efforts. This unit was included because Petit Bois Island has been documented as one of two islands in Mississippi with the greatest number of nests.

The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, human-caused disasters, and response to disasters. The existing Gulf Islands National Seashore General Management Plan includes controlling nonnative species to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 1978, p. 46). The management plan is being revised, and a draft is under review. The draft Gulf Islands National Seashore General Management Plan includes management efforts that would emphasize sea turtle nest monitoring and closure areas around nests intended to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 2011, p. 85).

Alabama

LOGG–T–AL–01—Mobile Bay-Little Lagoon Pass, Baldwin County: This unit consists of 28.0 km (17.4 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Gulf Intracoastal Waterway, Bon Secour Bay, and Little Lagoon. The unit extends from Mobile Bay Inlet to Little Lagoon Pass. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal, State, and private ownership (see Table 1). The Federal portion includes part of the Bon Secour NWR and four Bureau of Land Management (BLM) parcels. Bon Secour NWR assists in managing one of the BLM parcels; BLM manages their remaining three parcels. The State portion includes Fort Morgan State Park, which is managed by USFWS. This unit has high-density nesting by loggerhead sea turtles in Alabama. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. Bon Secour NWR has a CCP that includes working with partners for the implementation of nesting surveys, nest marking, education, minimizing human disturbance, predator removal, and other conservation efforts intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2005, pp. 54–55).

LOGG–T–AL–02—Gulf State Park-Perdido Pass, Baldwin County: This unit consists of 10.7 km (6.7 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Gulf Intracoastal Coastal Waterway, Shelby Lakes, Little Lake, Portage Creek, Wolf Bay, Bay La Launch, Cotton Bayou, and Terry Cove. The unit extends from the west boundary of Gulf State Park to Perdido Pass. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion is part of Gulf State Park, which is managed by the Alabama State Parks. This unit has high-density nesting by loggerhead sea turtles in Alabama. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, in-water and shoreline alterations, coastal development, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

LOGG–T–AL–03—Perdido Pass-Florida-Alabama line, Baldwin County: This unit consists of 3.3 km (2.0 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Gulf Intracoastal Waterway, Old River, Bayou St. John, Terry Cover, Amica Bay, and coastal islands. The unit extends from Perdido Pass to the Alabama–Florida border. This area is referred to as Alabama/Florida Point. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion is part of Gulf State Park, which is managed by the Alabama State Parks. This unit supports expansion of nesting from an adjacent unit (LOGG–T–AL–02) that has high-density nesting by loggerhead sea turtles in Alabama. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, in-water and shoreline alterations, beach sand placement activities, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

Florida

Because of the removal of the originally proposed Unit LOGG–T–FL–02 and LOGG–T–FL–04 from the Peninsular Florida Recovery Unit, originally numbered Units LOGG–T–FL–40 to LOGG–T–FL–47 in the Northern Gulf of Mexico Recovery Unit have been renumbered in the final rule as Units LOGG–T–FL–38 to LOGG–T–FL–45.

LOGG–T–FL–38—Perdido Key, Escambia County: This unit consists of 20.2 km (12.6 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Gulf Intracoastal Waterway, Old River, Perdido Bay, Big Lagoon, and coastal islands. The unit extends from the Alabama-Florida border to Pensacola

Pass. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal, State, and private ownership (see Table 1). The Federal portion is part of Gulf Islands National Seashore, Florida District, which is managed by the NPS. The State portion is Perdido Key State Park, which is managed by FDEP. This unit supports expansion of nesting from an adjacent unit (LOGG–T–AL–02) that has high-density nesting by loggerhead sea turtles in the Alabama portion of the Northern Gulf of Mexico Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, beach sand placement activities, in-water and shoreline alterations, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters.

The existing Gulf Islands National Seashore General Management Plan includes controlling nonnative species to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 1978, p. 46). The management plan is being revised, and a draft is under review. The draft Gulf Islands National Seashore General Management Plan includes management efforts that would emphasize sea turtle nest monitoring and closure areas around nests intended to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (NPS 2011, p. 77). Perdido Key State Park has a Unit Management Plan that includes procedures for the implementation of nesting surveys, nest marking, terrestrial predator control, debris removal, artificial light reduction in adjacent developed areas, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2006b, p. 5).

LOGG–T–FL–39—Mexico Beach and St. Joe Beach, Bay and Gulf Counties: This unit consists of 18.7 km (11.7 mi) of mainland shoreline along the Gulf of Mexico. The unit extends from the eastern boundary of Tyndall Air Force Base to Gulf County Canal in St. Joseph Bay. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private ownership (see Table 1). This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–40) that has high-density nesting by loggerhead sea turtles in the Florida portion of the Northern Gulf of Mexico Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, in-water and shoreline alterations, beach sand placement activities, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this unit.

LOGG–T–FL–40—St. Joseph Peninsula, Gulf County: This unit consists of 23.5 km (14.6 mi) of a spit shoreline along the Gulf of Mexico. The spit is separated from the mainland by St. Joseph Bay. The unit extends from St. Joseph Bay to the west boundary of Eglin Air Force Base. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion includes T.H. Stone Memorial St. Joseph Peninsula State Park and part of the St. Joseph Bay Aquatic Preserve, which are managed by FDEP. This unit has high-density nesting by loggerhead sea turtles in the Florida portion of the Northern Gulf of Mexico Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach sand placement activities, beach driving, predation, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters.

T.H. Stone Memorial St. Joseph Peninsula State Park has a Unit Management Plan that includes procedures for the implementation of nesting surveys, nest marking, terrestrial predator control, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2001b, pp. 4–5, 18). The St. Joseph Bay Aquatic Preserve Management Plan includes working with partners on the implementation of nesting surveys, nest marking, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2008b, pp. 50–51, 77). Gulf County has a draft HCP that could include sea turtle nest monitoring, nest protection from vehicles on the beach, public education, artificial light management, land acquisition, beach horseback riding ordinance enforcement, and predator control. These measures apply to the private lands within this critical habitat unit and are intended to minimize and mitigate impacts to nesting and hatchling loggerhead sea turtles as a result of the County-authorized beach driving (Gulf County Board of County Commissioners 2004, pp. 5–6–5–10).

LOGG–T–FL–41—Cape San Blas, Gulf County: This unit consists of 11.0 km (6.8 mi) of mainland and spit shoreline along the Gulf of Mexico. The unit extends from the east boundary of Eglin Air Force Base to Indian Pass. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State, private, and other ownership (see Table 1). The State portion is part of St. Joseph Bay State Buffer Preserve, which is managed by FDEP. The County portion is Salinas Park, which is managed by Gulf County. This unit supports expansion of nesting from adjacent units (LOGG–T–FL–40 and LOGG–T–FL–42) that have high-density nesting by loggerhead sea turtles in the Florida portion of the Northern Gulf of Mexico Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, coastal development, climate change, beach erosion, artificial lighting, habitat obstructions, human-caused disasters, and response to disasters. The draft St. Joseph Bay State Buffer Preserve Management Plan includes predator control (FDEP 2012b, p. 33).

LOGG–T–FL–42—St. Vincent Island, Franklin County: This unit consists of 15.1 km (9.4 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by St. Vincent Sound. The unit extends from Indian Pass to West Pass. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in Federal ownership (see Table 1). This unit is managed by USFWS as the St. Vincent NWR. This unit has high-density nesting by loggerhead sea turtles in the Florida portion of the Northern Gulf of Mexico Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. St. Vincent NWR has a draft CCP that includes the implementation of nesting surveys, nest marking, education, minimizing human disturbance, predator removal, and other conservation efforts intended to minimize impacts to nesting and hatchling loggerhead sea turtles (USFWS 2012, pp. 64–65).

LOGG–T–FL–43—Little St. George Island, Franklin County: This unit consists of 15.4 km (9.6 mi) of island shoreline along the Gulf of Mexico. The

island is separated from the mainland by Apalachicola Bay and St. Vincent Sound. The unit extends from West Pass to Bob Sikes Cut. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State ownership (see Table 1). This unit is managed by FDEP as the Apalachicola NERR. This unit has high-density nesting by loggerhead sea turtles in the Florida portion of the Northern Gulf of Mexico Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. The existing Apalachicola NERR Management Plan includes working with partners on the implementation of nesting surveys and controlling nonnative species to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 1998, pp. 78, 126, 161). The management plan is being revised, and a draft is under review. The draft management plan includes working with partners on the implementation of nesting surveys, nest marking, predator removal, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2011, pp. 48–49, 73–76).

LOGG–T–FL–44—St. George Island, Franklin County: This unit consists of 30.7 km (19.1 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by the Intracoastal Waterway, Apalachicola Bay, and East Bay. The unit extends from Bob Sikes Cut to East Pass. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in State and private ownership (see Table 1). The State portion is Dr. Julian G. Bruce St. George Island State Park, which is managed by FDEP. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–43) that has high-density nesting by loggerhead sea turtles in the Florida portion of the Northern Gulf of Mexico Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, predation, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. The Dr. Julian G. Bruce St. George Island State Park has a Unit Management Plan that includes procedures for the implementation of nesting surveys, nest marking, terrestrial predator control, debris removal, artificial light reduction in adjacent developed areas, education, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (FDEP 2003c, pp. 16–18).

LOGG–T–FL–45—Dog Island, Franklin County: This unit consists of 13.1 km (8.1 mi) of island shoreline along the Gulf of Mexico. The island is separated from the mainland by St. George Sound. The unit extends from East Pass to St. George Sound. The unit includes lands from the MHW line to the toe of the secondary dune or developed structures. Land in this unit is in private conservation ownership (The Nature Conservancy) (see Table 1). The unit includes the Jeff Lewis Wilderness Preserve, which is owned and managed by The Nature Conservancy. This unit supports expansion of nesting from an adjacent unit (LOGG–T–FL–43) that has high-density nesting by loggerhead sea turtles in the Florida portion of the Northern Gulf of Mexico Recovery Unit. The PBFs in this unit may require special management considerations or protections to ameliorate the threats of recreational use, beach driving, predation, climate change, beach erosion, artificial lighting, human-caused disasters, and response to disasters. At this time, we are not aware of any management plans that address this species in this area.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the USFWS, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with USFWS on any agency action which is likely to jeopardize the continued existence of any species listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeal have invalidated our regulatory definition of ''destruction or adverse modification'' (50 CFR 402.02) (see *Gifford Pinchot Task Force* v. *U.S. Fish and Wildlife Service,* 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club* v. *U.S. Fish and Wildlife Service,* 245 F.3d 434 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the USACE under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from USFWS under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, or are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define ''reasonable and prudent alternatives'' (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action;

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction;

(3) Are economically and technologically feasible; and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species

and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the ''Adverse Modification'' Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the PBFs to an extent that appreciably reduces the conservation value of critical habitat for the loggerhead sea turtle. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the loggerhead sea turtle. These activities include, but are not limited to:

(1) Actions that would significantly alter beach sand characteristics. Such activities could include, but are not limited to, beach sand placement and beach driving. These activities may lead to changes to the nest incubation environment by altering gas exchange, moisture content, temperature, and hardness of the nesting substrate to levels that eliminate or reduce the suitability of habitat necessary for successful reproduction of the loggerhead sea turtle. However, beach sand placement projects conducted under the USFWS's Statewide Programmatic Biological Opinion for the USACE planning and regulatory sand placement activities (including post-disaster sand placement activities) in Florida and other individual biological opinions throughout the loggerhead's nesting range include required terms and conditions that minimize incidental take of turtles and, if incorporated, the sand placement projects are not expected to result in adverse modification of critical habitat.

(2) Actions that would significantly decrease adult female access to nesting habitat or hinder hatchling sea turtles emerging from the nest from reaching the ocean. Such activities could include, but are not limited to, coastal residential and commercial development, beach armoring, groin construction, and construction of other erosion control devices. These structures could act as barriers or deterrents to adult females attempting to access a beach to levels that eliminate or reduce the suitability of habitat necessary for successful reproduction of the loggerhead sea turtle.

(3) Actions that would significantly alter natural lighting levels. Such activities could include, but are not limited to, lighting of coastal residential and commercial structures, street lighting, bridge lighting, pier lighting, and other development or road infrastructure. These activities could increase the levels of artificial lighting visible from the beach and act as a deterrent to adult females attempting to access a beach or disorient hatchlings emerging from the nest and crawling to the ocean. Increased levels may eliminate or reduce the suitability of habitat necessary for successful reproduction of the loggerhead sea turtle.

Exemptions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

(1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: ''The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the DOD, 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 plan provides a benefit to the species for which critical habitat is proposed for designation.''

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military installations located within the range of the proposed critical habitat designation for the loggerhead sea turtle to determine if they are exempt under section 4(a)(3) of the Act.

Approved INRMPs

The following areas are DOD lands with completed, USFWS-approved INRMPs within the critical habitat designation.

Marine Corps Base Camp Lejeune (Onslow Beach), NC, 12.4 km (7.7 mi)

Marine Corps Base Camp Lejeune is the Marine Corps' largest amphibious training base and is home to 47,000 marines and sailors, the largest single concentration of marines in the world. The mission of Camp Lejeune is to train and maintain combat-ready units for expeditionary deployment anywhere in the world. Onslow Beach, one of two

stretches of beach on the base, is used to support amphibious operations. Operations at the beach range from daily exercises by 2nd Amphibious Assault Battalion and Joint Armed Services training to periodic, large-scale training such as the quarterly Capability Exercises, which include explosives on the beach, inland artillery fire, and three Landing Craft Air Cushioned and 10 to 12 Amphibious Assault Vehicle landings (Marine Corps Base Camp Lejeune 2006, p. 1–10 and Appendix E).

Camp Lejeune encompasses an estimated 57,870 hectares (ha) (143,000 acres (ac)), including the onshore, nearshore, and surf areas in and adjacent to the Atlantic Ocean and the New River, in Onslow County, North Carolina. Onslow Beach consists of 12.4 km (7.7 mi) of island shoreline along the Atlantic Ocean. The island on which Onslow Beach is located is separated from the mainland by the Atlantic Intracoastal Waterway, Banks Channel, Salliers Bay, Wards Channel, and salt marsh. The boundaries of the island are from Browns Inlet to New River Inlet. Onslow Beach, which has been monitored for sea turtle nesting since 1979, has high-density nesting by loggerhead sea turtles for North Carolina.

The Marine Corps Base Camp Lejeune INRMP is a planning document that guides the management and conservation of natural resources under the installation's control. The INRMP was prepared to assist installation staff and users in managing natural resources more effectively so as to ensure that installation lands remain available and in good condition to support the installation's military mission. Camp Lejeune published its first INRMP in 2001 to guide resources management on the installation for the years 2002–2006. A revised INRMP was prepared in 2006 for the years 2007–2011. The existing INRMP will remain in use until its next revision, which the installation is preparing to initiate.

The 2006 INRMP includes the implementation of sea turtle nesting surveys, nest marking, and beach management to protect nesting and hatchling loggerhead sea turtles from anthropogenic disturbances (Marine Corps Base Camp Lejeune 2006, pp. 4–14—4–15). The INRMP identifies the goal of contributing to the recovery of the loggerhead sea turtle through development of ecosystem management-based strategies. The INRMP identifies the following management and protective measures to achieve this goal:

(1) Conduct nightly or morning ground sea turtle nest surveys on Onslow Beach during the nesting season;

(2) Conduct aerial surveys for sea turtle nests on Brown's Island and North Onslow Beach;

(3) Protect sea turtle nest sites with cages and restrictive signage;

(4) Move sea turtle nests that are in the amphibious training beach;

(5) Impose driving restrictions on Onslow Beach during the sea turtle nesting season, including restrictions to protect sensitive habitat south of Onslow South Tower;

(6) Rake ruts in front of sea turtle nests;

(7) Reduce sources of artificial lighting on Onslow Beach; and

(8) Monitor recreational or training impacts to Onslow Beach during the sea turtle nesting season.

In a letter dated October 25, 2012, Marine Corps Base Camp Lejeune provided information detailing its commitments to conduct additional activities that will benefit loggerhead sea turtles on Onslow Beach and Brown's Island. The commitments listed above will continue and will be added to the base's next INRMP. In addition, the following activities will be conducted and added to the next INRMP:

(1) Control sea turtle nest predators by implementing trapping to ensure that the annual mammalian predator rate is 10 percent or lower; and

(2) Manage lighting by ensuring that all fixtures and bulbs conform to the guidelines in the technical report titled ''Understanding, Assessing, and Resolving Light Pollution Problems on Sea Turtle Nesting Beaches'' (Witherington and Martin 1996, pp. 20–27). Marine Corps Base Camp Lejeune will conduct a sea turtle lighting survey and submit a plan to retrofit any lights visible from the nesting beach. The plan will be reviewed and approved by USFWS prior to installation or replacement of lights.

Based on the above considerations we have determined that the identified lands are subject to the Marine Corps Base Camp Lejeune INRMP and that conservation efforts identified in the INRMP will provide a benefit to the loggerhead sea turtle. Therefore, lands within this installation are exempt from critical habitat designation. We are not including 12.4 km (7.7 mi) of habitat in this critical habitat designation because of this exemption.

Cape Canaveral Air Force Station, Brevard County, FL, 21.0 km (13.0 mi)

Cape Canaveral Air Force Station is part of the 45th Space Wing, a unit of Air Force Space Command, whose mission is to assure access to the high frontier and to support global operations. The 45th Space Wing currently operates a number of rockets and missiles, including the Delta IV and Atlas V, and provides support for the DOD, NASA, and commercial manned and unmanned space programs.

Cape Canaveral Air Force Station is situated on the Canaveral Peninsula along the Atlantic Coast in Brevard County, Florida, and occupies 6,394 ha (15,800 ac). The installation's beach consists of 21.0 km (13.0 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, the Barge Channel, Banana River, Indian River Lagoon, Merritt Island, and Harrison Island. The boundaries of the installation are from the south boundary of Merritt Island NWR-Kennedy Space Center (Merritt Island NWR was established in 1963 as an overlay of NASA's John F. Kennedy Space Center) to Port Canaveral. Cape Canaveral Air Force Station is adjacent to a critical habitat unit (LOGG–T–FL–06) that has high-density nesting by loggerhead sea turtles in the Central Eastern Florida Region of the Peninsular Florida Recovery Unit.

Cape Canaveral Air Force Station is covered by the 45th Space Wing 2008 INRMP, a planning document that guides the management and conservation of natural resources under the Space Wing's control. The INRMP was prepared to manage natural resources in compliance with relevant statutes, executive orders, Presidential memoranda, regulations, and Air Force-specific requirements. The INRMP integrates the 45th Space Wing's natural resources management program with ongoing mission activities for sustainability while conserving and protecting natural resources. The 45th Space Wing is committed to a proactive, interdisciplinary management strategy focused on an ecosystem-based approach to natural resources management. This strategy includes the Air Force objective of sustaining and restoring natural resources to uphold operational capabilities while complying with Federal, State, and local standards that protect and conserve wildlife, habitat, and the surrounding watershed.

The 2008 INRMP includes the implementation of sea turtle nesting surveys, nest marking, predator control, and exterior lighting management to conserve loggerhead sea turtles and their habitat (45th Space Wing 2008, pp. 64–71 and Tab A). The INRMP identifies the need to develop and implement programs to protect and

conserve federally listed threatened and endangered plants and wildlife, including the loggerhead sea turtle. The INRMP identifies the following management and protective measures to achieve this goal:

(1) Monitor sea turtle nesting activities;

(2) Manage lighting (i.e., use of sea turtle friendly low pressure sodium and amber light-emitting diode (LED) shielded lighting in compliance with the Endangered Species Act for facilities that require illumination); and

(3) Control sea turtle nest predators.

In a letter dated October 10, 2012, the 45th Space Wing provided information detailing its commitments to conduct activities that benefit loggerheads on the beaches of Cape Canaveral Air Force Station and Patrick Air Force Base. These commitments will be added to their next INRMP and include:

(1) Monitor sea turtle nesting activities by participating in the Statewide Nesting Beach Survey and Index Nesting Beach Survey programs and conducting hatchling productivity assessments;

(2) Control sea turtle nest predators by implementing trapping at the first sign of tracks on the beach at Patrick Air Force Base; controlling raccoons, coyotes, and feral hogs within 0.8 km (0.5 mi) of the beach at Cape Canaveral Air Force Station; and installing predator-proof trash receptacles if needed; and

(3) Manage lighting by ensuring that all fixtures and bulbs follow the Space Wing Instruction (SWI) 32–7001 (internal instructions for exterior lighting management on both Patrick Air Force Base and Cape Canaveral Air Force Station), which has been reviewed and approved by USFWS, prior to installation or replacement. Any lights that do not follow the SWI 32–7001 require a USFWS-approved Light Management Plan.

Based on the above considerations we have determined that the identified lands are subject to the 45th Space Wing INRMP and that conservation efforts identified in the INRMP will provide a benefit to the loggerhead sea turtle. Therefore, lands within this installation are exempt from critical habitat designation. We are not including 21.0 km (13.0 mi) of habitat in this critical habitat designation because of this exemption.

Patrick Air Force Base, Brevard County, FL, 6.6 km (4.1 mi)

Patrick Air Force Base is also part of the 45th Space Wing (see discussion for Cape Canaveral above) and is presently the home of Headquarters, 45th Space Wing. Patrick Air Force Base is located on a barrier island on the central east coast of Florida in Brevard County and covers 810 ha (2,002 ac) of developed land and some coastal dune and estuarine habitat. The installation's beach consists of 6.6 km (4.1 mi) of island shoreline along the Atlantic Ocean. The island is separated from the mainland by the Atlantic Intracoastal Waterway, Indian River Lagoon, Banana River, and Merritt Island. The boundaries of the installation are from the south boundary of the city of Cocoa Beach (28.2720 N, 80.6055 W) to the north boundary of the town of Satellite Beach (28.2127 N, 80.5973 W). Patrick Air Force Base has high-density nesting by loggerhead sea turtles in the Central Eastern Florida Region of the Peninsular Florida Recovery Unit.

Like Cape Canaveral Air Force Station, Patrick Air Force Base is governed by the 45th Space Wing 2008 INRMP. As with Cape Canaveral Air Force Station, we have determined that the identified lands are subject to the 45th Space Wing INRMP and that conservation efforts identified in the INRMP will provide a benefit to the loggerhead sea turtle. Therefore, lands within this installation are exempt from critical habitat designation. We are not including 6.6 km (4.1 mi) of habitat in this critical habitat designation because of this exemption.

Eglin Air Force Base (Cape San Blas), Gulf County, FL, 4.8 km (3.0 mi)

Eglin Air Force Base is the largest forested military reservation in the U.S. and supports a multitude of military testing and training operations, as well as many diverse species and habitats. Eglin's missions include the 7th Special Forces Group (Airborne) beddown, Amphibious Ready Group/Marine Expeditionary Unit, Stand-off Precision Guided Missile, and Massive Ordnance Air Blast.

Eglin Air Force Base, also known as the Eglin Military Complex, is located in Santa Rosa, Okaloosa, Walton, and Gulf Counties in Northwest Florida and the Gulf of Mexico and occupies 261,428 ha (464,000 ac). The Eglin Military Complex includes the mainland Reservation located in Santa Rosa, Okaloosa, and Walton Counties, as well as a small parcel (389 ha (962 ac)) on Cape San Blas in Gulf County, Florida. Eglin's Cape San Blas parcel consists of 4.8 km (3.0 mi) of spit shoreline along the Gulf of Mexico. The spit is separated from the mainland by St. Joseph Bay. The boundaries of Eglin's Cape San Blas parcel are from 29.67680 N 85.36351 W to 29.67608 N 85.33394 W. Eglin's Cape San Blas parcel also contains U.S. Federal Reserve property, but the entire parcel is under Eglin's management. Eglin's Cape San Blas parcel has high-density nesting by loggerhead sea turtles in the Florida portion of the Northern Gulf of Mexico Recovery Unit.

The 2012 Eglin Air Force Base INRMP is a planning document that guides the management and conservation of natural resources under the installation's control. It provides interdisciplinary strategic guidance for the management of natural resources in support of the military mission within the land and water ranges of the Eglin Military Complex. The Eglin Air Force Base INRMP integrates and prioritizes wildlife, fire, and forest management activities to protect and effectively manage the Complex's aquatic and terrestrial environments, and ensure ''no net loss'' in the operational capability of these resources to support Eglin test and training missions.

The 2012 INRMP has a revised sea turtle chapter that includes the implementation of sea turtle nesting surveys, nest marking, predator control, and exterior lighting management to conserve loggerhead sea turtles and their habitat (Eglin Air Force Base 2012, pp. 8–7—8–16). The INRMP identifies the need to develop and implement programs to protect and conserve federally listed endangered and threatened plants and wildlife, including the loggerhead sea turtle. The INRMP identifies the following management and protective measures to achieve this goal:

(1) Monitor sea turtle nesting activities;

(2) Manage lighting (i.e., using sea turtle friendly, low-pressure sodium lighting at all test sites, turning off lights not necessary for safety, lowering lights, or properly shielding lights);

(3) Implement dune protection as needed; and

(4) Control sea turtle nest predators by implementing trapping either as soon as a nest is found to have been depredated or if deemed necessary by biologists.

Based on the above considerations, we have determined that the identified lands are subject to the Eglin Air Force Base INRMP and that conservation efforts identified in the INRMP will provide a benefit to the loggerhead sea turtle. Therefore, lands within this installation are exempt from critical habitat designation. We are not including 4.8 km (3.0 mi) of habitat in this critical habitat designation because of this exemption.

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act 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. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute, as well as the legislative history, is clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise her discretion to exclude the area only if such exclusion would not result in the extinction of the species.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus; the educational benefits of mapping essential habitat for recovery of the listed species; and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat. When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan that provides equal to or more conservation than a critical habitat designation would provide.

In the case of loggerhead sea turtle, the benefits of including an area in critical habitat include public awareness of its presence and the importance of habitat protection, and in cases where a Federal nexus exists, increased habitat protection for the loggerhead due to the protection from adverse modification or destruction of critical habitat.

When we evaluate the existence of a conservation plan when considering the benefits of exclusion, we consider a variety of factors, including but not limited to: Whether the plan is finalized; how it provides for the conservation of the essential PBFs; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After identifying the benefits of inclusion and the benefits of exclusion, we balance the benefits of each side to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared a DEA of the proposed critical habitat designation and related factors (Industrial Economics, Incorporated (IEc) 2013, entire). The draft analysis, dated July 17, 2013, was made available for public review from July 18, 2013, through September 16, 2013 (78 FR 42921). Following the close of the comment period, a final analysis (dated December 24, 2013) of the potential economic effects of the designation was developed taking into consideration the public comments and any new information (IEc 2013, entire).

The intent of FEA is to quantify the economic impacts of all potential conservation efforts for the loggerhead sea turtle; some of these costs will likely be incurred regardless of whether we designate critical habitat. The economic impact of the final critical habitat designation is analyzed by comparing scenarios both ''with critical habitat'' and ''without critical habitat.'' The ''without critical habitat'' scenario represents the baseline for the analysis, considering protections already in place for the species (e.g., under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The ''with critical habitat'' scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat above and beyond the baseline costs; these are the costs we consider in the final designation of critical habitat. The analysis looks retrospectively at baseline impacts incurred since the species was listed, and forecasts both baseline and incremental impacts likely to occur with the designation of critical habitat.

The FEA also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of conservation activities on government agencies, private businesses, and individuals. The FEA measures lost economic efficiency associated with residential and commercial development and public projects and activities, such as economic impacts on water management and transportation projects, Federal lands, small entities, and the energy industry. Decision-makers can use this information to assess whether the effects of the designation might unduly burden a particular group or economic sector. Finally, the FEA looks retrospectively at costs that have been incurred since 2011 (year of the DPS' listing) (76 FR 58868), and considers those costs that may occur in the 10 years following the designation of critical habitat, which was determined to be the appropriate period for analysis because limited planning information was available for most activities to forecast activity levels for projects beyond a 10-year timeframe. The FEA quantifies economic impacts of loggerhead sea turtle conservation efforts associated with the following categories of activity:

(1) Species and Habitat Management;
(2) In-water and Coastal Construction;
(3) Sand Placement;
(4) Recreation;
(5) Lighting Management;
(6) Disaster Response;
(7) Oil and Gas Activities; and
(8) Offshore Renewable Energy.

Our economic analysis did not identify any disproportionate costs that are likely to result from the designation. Consequently, the Secretary is not

exercising her discretion to exclude any areas from this designation of critical habitat for the Northwest Atlantic Ocean DPS of the loggerhead sea turtle based on economic impacts.

A copy of the FEA with supporting documents may be obtained by contacting the North Florida Ecological Services Office (see **ADDRESSES**) or by downloading from the Internet at *http://www.regulations.gov.*

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider lands where a national security impact may exist. As discussed above, we have exempted from the designation of critical habitat under section 4(a)(3) of the Act those DOD lands with completed INRMPs determined to provide a benefit to the loggerhead sea turtle but where a national security impact may exist. We have not identified any other lands owned or managed by the DOD within the lands designated for critical habitat designation. Consequently, the Secretary is not exercising her discretion to exclude any areas from this final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Based on the information provided by entities identified in the proposed rule for potential exclusion, as well as any additional public comments received, we considered whether certain lands covered in three HCPs in Florida were appropriate for exclusion from this final designation pursuant to section 4(b)(2) of the Act: (1) St. Johns County, numbered in the proposed rule as Units LOGG–T–FL–01, LOGG–T–FL–02, and LOGG–T–FL–03; (2) Volusia County, numbered in the proposed rule as Unit LOGG–T–FL–05; and (3) Indian River County, numbered in the proposed rule as Unit LOGG–T–FL–10. As a result of our consideration, we are excluding the following areas within those units covered by all three Counties' HCPs from critical habitat designation for the loggerhead sea turtle. Table 2 below provides approximate areas of lands that are being excluded on this basis.

TABLE 2—LANDS BEING EXCLUDED FROM CRITICAL HABITAT UNDER SECTION 4(B)(2) OF THE ACT BASED ON COVERAGE BY HCPS

[Note: The unit numbers in this table reflect the numbering used in the proposed rule. As noted in Table 1 and elsewhere in this rule, critical habitat unit numbers in Florida have been renumbered based on these exclusions.]

Unit	Specific area	Areas meeting the definition of critical habitat, in kilometers (miles)	Areas excluded from critical habitat, in kilometers (miles)
LOGG–T–FL–01	South Duval County Beaches—Old Ponte Vedra, Duval and St. Johns Counties.	25.2 (15.6)	13.7 (8.5)
LOGG–T–FL–02	Guana Tolomato Matanzas National Estuarine Research Reserve—St. Augustine Inlet, St. Johns County.	24.1 (15.0)	24.1 (15.0)
LOGG–T–FL–03	St. Augustine Inlet—Matanzas Inlet, St. Johns County	22.4 (14.0)	21.0 (13.1)
LOGG–T–FL–05	Ormond-by-the-Sea—Granada Blvd, Volusia County	11.1 (6.9)	11.1 (6.9)
LOGG–T–FL–10	Sebastian Inlet—Indian River Shores, Indian River County	21.4 (13.3)	17.3 (10.8)
Total		104.2 (64.8)	87.2 (54.3)

Land and Resource Management Plans, Conservation Plans, or Agreements Based on Conservation Partnerships

We consider a current land management or conservation plan (HCP as well as other types) to provide adequate management or protection if it meets the following criteria:

(1) The plan is complete and provides a conservation benefit for the species and its habitat;

(2) There is a reasonable expectation that the conservation management strategies and actions will be implemented for the foreseeable future, based on past practices, written guidance, or regulations; and

(3) The plan provides conservation strategies and measures consistent with currently accepted principles of conservation biology.

St. Johns County HCP

We believe that the HCP in St. Johns County, Florida, titled ''A Plan for the Protection of Sea Turtles and Anastasia Island Beach Mice on the Beaches of St. Johns County, Florida,'' fulfills the above criteria, and we therefore conducted a discretionary exclusion analysis for the HCP.

The HCP in St. Johns County, Florida, covers approximately 66.1 k (41.1 mi) of beaches along the 67.6 k (42.0-mi) coastline in the County. This includes the beaches in Guana River State Park, Anastasia State Park, and the beaches within the municipalities of St. Augustine, St. Augustine Beach, and Marineland. Even though the County does not exercise regulatory authority in the State parks or the municipalities, these beaches are included, because the County performs beach services and operates safety and/or emergency vehicles in these areas. St. Johns County has regulatory authority over 46.0 k (28.6 mi) of beachfront. Therefore, the HCP includes all beaches along St. Johns County between the Duval County Line on the north and the Flagler County Line on the south, except for those beaches fronting Fort Matanzas National Monument. The eastern or waterward limit of the Plan Area is the Mean Low Water (MLW) line of the Atlantic Ocean, and the western or landward boundary follows the Coastal Construction Control Line.

The HCP covers activities associated with public vehicular beach access and driving issued under the County's authorization and potential incidental take of, among other listed species, five species of sea turtles (loggerhead, leatherback, green, Kemp's ridley, and hawksbill) for a 20-year period. The over-arching biological goal of the HCP is to provide a net benefit to sea turtles throughout the life of the incidental take permit (ITP). The proposed critical habitat units within the HCP coverage area included the portions of LOGG–T–FL–01—South Duval County Beaches-Old Ponte Vedra located in St. Johns County, all of LOGG–T–FL–02—Guana Tolomato Matanzas National Estuarine Research Reserve (GTMNERR)-St. Augustine Inlet, and portions of LOGG–T–FL–03—St. Augustine Inlet-Matanzas

Inlet (Table 3). The three Units total 58 km (35.2 mi).

The measures in the HCP are intended to minimize and mitigate impacts to nesting and hatchling loggerhead sea turtles as a result of the County-authorized beach driving. The HCP measures to minimize the potential for impacts to sea turtles causally related to vehicular access to the beach allowed under the County's authorization include:

(1) Reducing public vehicular beach access hours during the sea turtle nesting season.

(2) Installing and maintaining traffic barricades at beach ramps and other points to regulate vehicular access.

(3) Monitoring and conspicuous marking of all sea turtle nests in the Plan Area.

(4) Developing a standard protocol to remove vehicle ruts seaward of sea turtle nests during periods when hatchlings are expected to emerge.

(5) Increased and dedicated enforcement of beach driving policies and procedures.

(6) Developing and implementing a public awareness program.

(7) Elevating trash receptacles on posts along public driving areas.

(8) Developing and instituting a training program that must be attended by drivers wishing to obtain a four-wheel drive permit for driving north of Vilano Ramp.

(9) Reducing public beach driving along Summer Haven.

In addition to the minimization measures described above, the County will mitigate unavoidable take that might occur as the result of County-authorized beach driving through the following: A proactive Beach Lighting Management Program to align the City of St. Augustine Beach's lighting regulations and the County's lighting regulations; developing and instituting a beach horseback riding registration and education program; restricting Porpoise Point vehicular access to allow re-establishment of natural dune features at certain locations; establishing a single, marked driving lane; restoring the primary dune along certain locations; implementing a uniform and consistent sea turtle monitoring program; and providing funding for the HCP.

The ITP was issued by the USFWS in 2006; annual reports have been received for all the years since the ITP was issued. The reports summarize the programs, policies and procedures implemented by St. Johns County during each year in support of the ITP and HCP. It assesses the effectiveness of these measures, identifies program deficiencies and describes steps that will be taken by the County to further improve HCP/ITP performance. Each action is provided a summary of implementation and an assessment with corresponding solutions provided. Through the annual reports, St. Johns County has shown how successfully they are implementing the HCP and ITP and continuing to improve the programs as the need or opportunities arise. The implementation of the HCP has reached its sixth year and the County has been working diligently to reach compliance by increasing its enforcement capabilities and HCP support staff, improving its levels of communication with sea turtle survey permit holders and FWC staff involved in implementation of the Florida Fish and Wildlife sea turtle conservation guidelines. The County is able to spend more time evaluating areas of the HCP that are in need of special attention. The County has shown a clear commitment to implement the HCP and ITP.

Benefits of Inclusion—St. Johns County HCP

As described above, the St. Johns County HCP has very narrow focused incidental take coverage and resultant conservation. Because of the narrow focus of the HCP coverage, projects that have a Federal nexus outside of the purview of the HCP activities would require section 7 consultation. Projects could include shoreline protection efforts, such as beach nourishment, armoring, disaster response, habitat restoration, and recovery grants to the State that are federally conducted, funded, or permitted. However, as indicated above, the USFWS does not anticipate additional requirements beyond those required for the species being listed. The incremental benefit to the species from the resultant section 7 consultation required by projects other than the subject HCP along the beachfront would be reduced but not eliminated. The inclusion of these areas as critical habitat could therefore provide some additional Federal regulatory benefits not found in the St. Johns County HCP. Another potential benefit of including lands in a critical habitat designation is that it serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. A significant part of the HCP is to promote education of the beachfront landowners and users about sea turtles and other coastal species. There is a plethora of education material produced and distributed in this regard for the HCP. Through their public awareness program the County seeks to create an active community of stewards of the environment and protected species. This goal is achieved by providing education materials, developing science-based school-age field trips, and attending periodic public events. Through this program, County staff is able to educate the community on beach driving policies, the traditional recreational uses on County beaches, and how they may impact sea turtles and other coastal species and their habitats. The public is reached through various media outlets including, local newspapers, news channels, Government television stations, radio, public service announcements, and the County Web site (St. Johns County 2010, pp. 33–34). Thus, the benefits of inclusion in critical habitat are further reduced based on the prior and ongoing educational efforts associated with the HCP.

Benefits of Exclusion—St. Johns County HCP

The benefits of excluding the St. Johns HCP from critical habitat could include fostering more partnerships between the Service and the County and the County with the municipalities within its jurisdiction, sea turtle nest monitoring group, and the State of Florida. For example, the County works closely with local volunteers in their Sea Turtle Washback Program to assist with sea turtle conservation efforts while fostering their interest in sea turtles. The County has worked closely forming partnerships with the municipalities that are covered under the HCP although the County has no regulatory authority. In the 2012 annual report (St. Johns County 2013, p. 53), summarizes the implementation of the HCP's light management to benefit loggerhead nesting habitat: ''In September 2006 the Beach Lighting Management Plan (BLMP), County Ordinance 99–33 was submitted and approved through the USFWS. In May 2007, the City of St. Augustine Beach officially adopted County Ordinance 99–33 allowing the Beach Lighting Officer to begin an education effort within the City limits and conduct surveys of the locale. Prior to the start of the 2007 nesting season a part time seasonal Beach Lighting Officer was employed to implement and enforce the BLMP in the City during the sea turtle season. The beaches of St. Johns County were surveyed seven nights a week throughout the entire nesting season of 2012.''

According to the St. Johns County HCP, the beach lighting management plan is to be continually and consistently implemented. The

activities, under which the plan is conducted, directly benefit loggerhead terrestrial habitat by maintaining suitable nesting beach habitat with sufficient darkness to ensure nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea and provide benefits over and above the narrow scope of the HCP.

Other partnerships formed by St. Johns County have included the sea turtle survey permit holders and the FWC that manages the survey program. St. Johns County sea turtle patrol is coordinated by eight different permit holders and based solely on volunteer efforts with the exception of park rangers from Anastasia State Park and GTMNERR. Beaches are patrolled seven days a week from May 1st until approximately mid-September. The Standardized Sea Turtle Monitoring Protocol is used. Because of the number of reporting surveyors to the County and the amount of data, communication has been key to collecting good quality data and resolving issues related to the HCP implementation, allowing the County to make critical beach management decisions and analyze the effectiveness of the protection measures. Their goal is to work in a positive manner and as a team with the permit holders and their volunteers in order to move forward with the protection of the listed species. Fostering good working partnerships has also resulted in better data collection on sea turtle nesting activities and effects of beach driving and other activities authorized by the County.

Additionally, the designation of critical habitat could have an unintended negative effect on the Service's relationship with non-Federal landowners within and outside of the area covered by the HCP due to the perceived imposition of redundant government regulation. If lands within the area cover by the HCP for the benefit of the DPS are designated as critical habitat, it could have a dampening effect on our continued ability to seek new partnerships with future participants including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement various conservation actions (such as safe harbor agreements (SHAs), HCPs, and other conservation plans, particularly large, regional conservation plans that involve numerous participants or address landscape-level conservation of species and habitats) that we would be unable to accomplish otherwise.

The 2010 annual report (St. Johns County 2010, p. v) effectively summarizes the County's HCP and its implementation: ''The HCP is meant to create compatibility between protected species and beach user groups. For the program to work in its entirety, support and understanding from these user groups pertaining to all aspects of the HCP and ITP must be obtained. In addition, the management of County beaches is extremely challenging due to the number and types of activities governed by the HCP. The County must not only coordinate programs within and among numerous County departments, it is also responsible for training and coordinating the activities of outside contractors, commercial fishermen, north beach permittees, horseback riders and groups involved in protected species monitoring. Due to the complexity of the HCP, the diversity of program participants, the scope of activities and the limited staff, it is expected that difficult issues sometimes occur.'' Although the HCP is complex and the County acknowledges challenges may arise, the Service finds that the County has effectively implemented the HCP and will continue to do so in the future.

Benefits of Exclusion Outweigh Benefits of Inclusion—St. Johns County HCP

The Secretary has determined that the benefits of excluding the St. Johns County HCP from the designation of critical habitat for the species outweigh the benefits of including this area in critical habitat. Any Federal nexus on these lands would likely result from actions not covered by the HCP. St. Johns County has shown in the 6 years of implementing the HCP that they are committed to the HCP: Improving the process, fostering partnerships with involved parties, securing high quality data and scientific information to better inform decisions, and seeking compatibility with the beach user groups and conservation of nesting sea turtles and other coastal species. The HCP covers only non-Federal lands. Thus, there would still be need for section 7 consultation on projects outside of the purview of the HCP activities that have a Federal nexus as a result of Federal actions, authorizations, or funding. The benefits of inclusion in critical habitat at these sites would be minimized since they are occupied by the species and section 7 consultation would still be invoked to consider the project effects on the species.

Exclusion of these lands from critical habitat would help foster the partnership we have developed with St. Johns County through the development and continuing implementation of the HCP. Exclusion of these lands will also help the County as they continue their partnerships with the local municipalities, sea turtle monitoring groups and the State of Florida. Recognizing the important contributions of our conservation partners through exclusion from critical habitat helps to preserve these partnerships, and helps foster future partnerships for the benefit of listed species, the majority of which do not occur on Federal lands; we consider this to be a substantial benefit of exclusion. For these reasons, we have determined that the benefits of exclusion outweigh the benefits of inclusion in this case.

Exclusion Will Not Result in the Extinction of the Species—St. Johns County HCP

Because the HCP has a successful and committed record of implementation, the coverage area of the HCP includes the loggerhead sea turtle and its habitat, and the HCP specifically addresses the loggerhead sea turtle's habitat and meets the conservation needs of the species within the plan area, the Secretary has determined that exclusion of this area will not result in the extinction of the species. The shoreline covered under the St. Johns County HCP that are within the proposed critical habitat units LOGG–T–FL–01—South Duval County Beaches-Old Ponte Vedra, LOGG–T–FL–02—Guana Tolomato Matanzas National Estuarine Research Reserve-St. Augustine Inlet, and LOGG–T–FL–03—St. Augustine Inlet-Matanzas Inlet compose 58.8 km (36.6 mi) of shoreline. This accounts for 5 percent of the total critical habitat shoreline proposed for the species. Proposed Unit LOGG–T–FL–02 is a high density nesting beach and proposed Units LOGG–T–FL–01 and LOGG–T–FL–03 were units selected because they were adjacent to a high density nesting beach. The conservation under the HCP would continue for these beaches and, for activities not covered by the HCP, these beaches are occupied and therefore section 7 consultation would still be invoked to consider the project effects on the species. Based on the above discussion, the Secretary is exercising her discretion under section 4(b)(2) of the Act to exclude from this final critical habitat designation portions of LOGG–T–FL–01 and LOGG–T–FL–03 and the entire LOGG–T–FL–02 critical habitat units totaling 58.8 km (36.6 mi).

Volusia County HCP

We believe the HCP in Volusia County, Florida; titled ''A Plan for the Protection of Sea Turtles on the Beaches of Volusia County, Florida,'' fulfills the above criteria, and we therefore

conducted a discretionary exclusion analysis for the HCP. For the purposes of this HCP, Volusia County's coastline is divided into two areas. The Plan Area, the area for which incidental take has been requested under the HCP/ITP, extends from the Volusia County/Flagler County Line on the north to the Volusia County/Brevard County line on the south. The Plan Area encompasses the entire 80.5 km (50.0 mi) of Atlantic Ocean beaches in the County, including those in the North Peninsula State Recreation Area and the Canaveral National Seashore, as well as the beaches on the north and south shores of Ponce Inlet from the jetties west to the intersection of the Inlet and Halifax River. Even though the County does not exercise regulatory authority in the State and Federal parks, they are included because County public safety or emergency vehicles may have to enter those areas under emergency conditions. The second area, a subset of the first and hereafter referred to as County Beaches, includes about 58.0 km (36.0 mi) of beaches over which Volusia County exercises sole beach management and regulatory authority. Both areas are bounded on the east by the MLW line and on the west by the bulkhead line or line of permanent vegetation.

The HCP covers activities associated with the County's authorization of vehicles on the County Beaches by the public, as well as other associated activities by the County, including emergency operations, special events, scientific studies, and routine coastal construction projects. The primary goal of the HCP is to develop a comprehensive plan that will minimize the potential for harm to listed species covered under the ITP within the defined Plan Area while allowing for continued vehicular access to the County Beaches. The present HCP took into account the previous HCP/ITP (1995 to 2001), updated programs, policies, procedures, and management initiatives needed to continue to protect sea turtles, as well as piping plovers, into the future. Changes were made to eliminate measures that had little or no conservation benefit, reflect past HCP performance, and recognize past efforts undertaken by the County in fulfillment of its obligations under the ITP.

The proposed critical habitat rule (78 FR 18000) described the units within the HCP Plan Area to include LOGG–T–FL–04—River to Sea Preserve at Marineland-North Peninsula State Park and LOGG–T–FL–05—Ormond-by-the-Sea-Granada Blvd. However, in our July 18, 2013, notice of availability of the DEA and associated re-opening of the comment period (78 FR 42921), we announced that we were no longer considering proposed Unit LOGG–T–FL–04 for exclusion. The reason for this change, as described in the notice, was because the HCP covers only incidental take associated with County emergency vehicles accessing the North Peninsula State Park beaches and does not contain any specific conservation measures for the covered species, including the loggerhead sea turtle, within the park.

Conservation of covered species and their habitat in the HCP will be achieved through good faith implementation of the minimization and mitigation measures along with active enforcement of those measures (EAI Inc. 2008, p. 6). The measures apply to non-Federal lands including private and County Beaches. The measures to minimize the potential for impacts to sea turtles causally related to vehicular access to the beach allowed under the County's authorization include:

- A plan that will encourage the development of off-beach parking alternatives and other facilities in those areas where vehicular access is prohibited so that public access is guaranteed.
- Establishment of programs to generate the requisite data needed to assess the effectiveness of the HCP in meeting its biological goal.
- Continuing to assign a staff person as the HCP Coordinator to administer the ITP and support a Protected Species Specialist to monitor and manage protected species on County Beaches.
- A scientifically based sea turtle monitoring program. The sea turtle program will be monitored to ensure that data collected in support of the HCP are consistent, reliable, and permit an accurate assessment of the effectiveness of protective measures implemented under the ITP.
- A public education program to include: Posting signage on the beach indicating driving restrictions and areas, and wildlife conservation, distributing brochures on driving and parking regulations, and sea turtles, developing and providing daily announcements, maintaining County Web site and public park kiosks about coastal wildlife.
- Maintaining a Committee in the County to facilitate inter-departmental communication and coordination among the various County divisions, departments, and offices that have responsibilities under the HCP.
- An ancillary protective measure of rut removal to eliminate ruts that may impede or trap hatchlings crawling from the nest to the sea will be instituted.
- Systematic surveys for washback sea turtle hatchlings conducted by Beach Safety.

In addition to the minimization measures described above, Volusia County is mitigating unavoidable take by:

- Minimizing take and allowing for potential growth in the nesting population of sea turtles by seeking methods to separate sea turtles and vehicular traffic;
- Conducting a professionally managed sea turtle monitoring and nest protection program;
- Regulating activities potentially impacting sea turtles;
- Having an active enforcement program;
- Creating and providing an HCP/ITP training program and manual; and
- Funding a sea turtle rehabilitation and public education center, Marine Science Center in the Town of Ponce Inlet, centrally located to County Beaches.

Volusia County had or has implemented the following voluntary measures for the benefit of covered species as well as other protected species inhabiting County Beaches. Under its original ITP, Volusia County developed a Beach Lighting Management Plan (BLMP). The document characterized upland development, beachfront lighting, sea turtle nesting patterns, and disorientation trends. It identified the strategies, tools, policies, procedures, and resources needed to effectively manage artificial lighting along County Beaches. The County completed implementation of its BLMP. Although lighting problems persist, particularly in the highly urbanized areas of Daytona Beach and Daytona Beach Shores, the County believes the program currently in place is steadily improving the quality of sea turtle nesting habitat on County Beaches. The County has committed to continuation of its light management efforts on a policy, but not legal, basis by adequately staffing and funding this program into the future. This policy is independent of HCP and ITP requirements and represents a voluntary program.

In addition to the systematic surveys for washback sea turtle hatchlings conducted by Beach Safety as a requirement of the ITP, the County has voluntarily developed and initiated a new proactive program, Washback Watchers, to help locate and remove even more washback hatchlings from County Beaches.

The ITP was issued by the USFWS in 2005. Annual reports are available for the years 2006 through 2013 since the

present ITP has been issued. The Annual Reports provide documentation of the County's implementation of measures prescribed by the ITP. During the first ITP issued to Volusia County from 1996 to 2001 the HCP was diligently implemented. The success of the County's HCP in minimizing take resulted primarily from programs that spatially and temporally limited the potential for sea turtle-vehicle interactions. Public vehicles were prohibited from accessing the beach at night when the vast majority of sea turtle nesting and hatching occurs. Additionally, public no-driving zones, including the establishment of marked conservation areas in public driving areas, limit vehicle interactions with nests. Only about 5 percent of the nests deposited each year on County Beaches remain outside of these protected areas and these nests are conspicuously barricaded so vehicles can avoid them. During 2012, 77 percent of the total sea turtle nests deposited on Volusia County beaches occurred in Natural Beach Management Areas (BMAs) where public driving is prohibited. These nesting numbers and distribution are consistent with results from the previous 16 years that the original and current HCP had been in effect (1997 to 2013) and demonstrates the overall effectiveness of the Natural BMAs in protecting nests from vehicular traffic.

The County has maintained adequate staff positions and County committees as required or provided for in the HCP. Enforcement of the HCP beach driving and other policies has remained in effect; while changes in enforcement personnel may change, the overall patrol and coverage of the beach is sustained. Volusia County Beach Safety issues warnings, parking tickets, and traffic citations for HCP-related enforcement actions, disobeying traffic devices, driving outside designated traffic lanes, or for towed vehicles left on the beach after closing hours. Review of the issued warnings, tickets, and citations between 2006 and 2011 indicates that while the numbers continue to range between 600 and 900 violations a year, the County has proceeded to address the areas where violations occur. For example, driving outside the driving lanes was a common violation and this became an issue for habitat conservation as well as human fatalities. Driving lanes are now clearly delineated on the beach and warnings, tickets, citations issued for this violation has decreased.

The County's beach public awareness program developed pursuant to the HCP uses a variety of methods to reach beach drivers, the general public, and media including distribution of brochures at the beach access ramps (vehicle and pedestrian accesses), maintenance of a County Web site, participation in school and civic events, and signage on the beach and at County park kiosks. The County also has participated in television shows, written newspaper and magazine articles, and designed a public service announcement. The County also provides informational materials to beach hotels, motels, condominiums, and commercial vendors.

Volusia County included light management within its original HCP as a mitigation measure for impacts to nesting and hatchling sea turtles from beach driving. In the present HCP Volusia County removed light management as a mitigation measure and replaced it with the establishment of a sea turtle rehabilitation facility. The present HCP included the County's commitment to maintaining its current Light Management Plan as part of its voluntary Conservation Measures. Light management on sea turtle nesting beaches provides significant conservation for nesting sea turtles and hatchlings, especially on urban beaches found in Volusia County.

Until recently, the USFWS had been supportive of Volusia County's lighting ordinances. In May 2011, however, the USFWS became aware of a proposed revision to the 2008 lighting ordinance that would reduce protection to sea turtles by allowing lights of certain wavelengths that are disruptive to nesting and hatchling sea turtles to be visible from the beach if used for lighted signage and decorative lighting. On May 18, 2011, the USFWS sent a letter to the Volusia County Commission explaining the significant risk of adverse effects to sea turtles from such proposed lighting changes, as well as the liability to the County and others for any such effects as described under section 9 of the Act. Although the USFWS and FWC expressed similar concerns, Volusia County adopted the revised lighting ordinance with the above less restrictive provisions.

At present, there are amusement rides adjacent to habitat that supports the nesting loggerhead turtles. The exterior lighting on these rides are permissible under the revised County's ordinance. However, the exterior lighting of these rides has negatively affected sea turtle nesting and hatchling sea-finding orientation. There have been two loggerhead nest disorientations attributed to the exterior lights on this amusement ride (Trindell 2013, pers. comm.). Beachfront lighting not only affects the nesting beaches directly seaward, but also adjacent beaches and, depending on the light type and location, may have effects on beaches miles away. Especially in areas where activities are clustered, the cumulative effect of the lighting contributes to sky glow, resulting in widespread effects of the lighting. While we acknowledge that light management is an on-going issue, it is outside the scope of the HCP. We will continue to work with Volusia County and the municipalities to find solutions to lighting issues.

Benefits of Inclusion—Volusia County HCP

As described above, the Volusia County HCP has a very narrow focused incidental take coverage. While the range of incidental take granted is narrow, benefits from minimization and mitigative measures include sea turtle nest monitoring, education, and wildlife rehabilitation. There would still be need for section 7 consultation on projects outside of the purview of the HCP activities that have a Federal nexus. Such projects could include beach nourishment, disaster response, dune restoration, and recovery grants to the State. However, as indicated above, the USFWS does not anticipate additional requirements in designated critical habitat beyond those required for the DPS. The incremental benefit to the DPS from the resultant section 7 consultations would be reduced but not eliminated. The inclusion of these areas as critical habitat could therefore provide some additional Federal regulatory benefits not found in the Volusia County HCP. For example, the loss of the BLMP as a mitigation measure reduces the beneficial effects of the HCP for the DPS. While the Marine Science Center provides educational benefits and turtle rehabilitation, the overall direct benefits to the species in Volusia County are less than what would be realized from a fully committed lighting management program.

Another potential benefit of including lands in a critical habitat designation is that it serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. On the other hand, a significant part of the Volusia County HCP is to promote education of the beach users and general public about sea turtles and other coastal species, so some of the educational benefits of inclusion would be reduced.

Benefits of Exclusion—Volusia County HCP

The benefits of excluding the Volusia County HCP from critical habitat could include the improvement of the existing relationship between the County and the USFWS, which, as outlined above, has already led to many conservation benefits for the species. Exclusion would likewise improve the potential for the County to help foster partnerships among the municipalities within the County, which could lead to a better light management program. Appropriate beachfront lighting benefits the species by maintaining suitable nesting beach habitat with sufficient darkness to ensure nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea. A primary constituent element of the species' critical habitat is ''Suitable nesting beach habitat with sufficient darkness to ensure nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea.'' The positive effects of effective lighting management, compliance, and enforcement provide direct, on the ground, measurable benefits to nesting and hatchling turtles. While education and rehabilitation of injured turtles and washbacks may provide benefits as well, the actual on the ground results are much less than those provided by lighting management.

Additionally, the designation of critical habitat could have an unintended negative effect on the Service's relationship with non-Federal landowners within and outside of the area covered by the HCP due to the perceived imposition of redundant government regulation. If lands within the area cover by the HCP for the benefit of the DPS are designated as critical habitat, it could have a dampening effect on our continued ability to seek new partnerships with future participants including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement various conservation actions (such as safe harbor agreements (SHAs), HCPs, and other conservation plans, particularly large, regional conservation plans that involve numerous participants or address landscape-level conservation of species and habitats) that we would be unable to accomplish otherwise.

Benefits of Exclusion Outweigh Benefits of Inclusion—Volusia County HCP

The Secretary has determined that the benefits of excluding the Volusia County HCP from the designation of critical habitat for the DPS outweigh the benefits of including this area in critical habitat. Volusia County has shown in the 16 years of implementing the HCP that it is committed to the HCP: Improving the process, securing high quality data and scientific information to better inform decisions, and seeking compatibility with the beach user groups and conservation of nesting sea turtles and other coastal species. The HCP covers only non-Federal lands. Thus, there would still be need for section 7 consultation on projects outside of the purview of the HCP activities that have a Federal nexus as a result of Federal actions, authorizations, or funding. The benefits of inclusion in critical habitat at these sites would be minimized since the areas are occupied by the species and section 7 consultation would still be required for projects with a Federal nexus to consider the project's effects on the species (i.e., regardless of whether or not CH is designated).

This HCP was intended to cover incidental take of sea turtles related to driving by the public and County as authorized or permitted by Volusia County. Overall, the measures provided for in the HCP address the intended purpose of the HCP.

Exclusion of these lands from critical habitat would help foster the partnership we have developed with Volusia County through the development and continued implementation of the HCP. Exclusion of these lands will also help us support the County as they continue their partnership with the local municipalities, sea turtle monitoring groups, and the State of Florida. Recognizing the important contributions of our conservation partners through exclusion from critical habitat helps to preserve these partnerships, and helps foster future partnerships for the benefit of listed species, the majority of which do not occur on Federal lands; we consider this to be a substantial benefit of exclusion. For these reasons, we have determined, after careful balancing, that the benefits of exclusion of lands covered by the Volusia County HCP from critical habitat for the DPS outweigh the benefits of inclusion.

Exclusion Will Not Result in the Extinction of the Species—Volusia County HCP

Because the HCP has a successful record of implementation, the coverage area of the HCP includes the loggerhead sea turtle and its habitat, and the HCP specifically addresses the loggerhead sea turtle's habitat and meets the conservation needs of the species within the plan area, the Secretary has determined that exclusion of this area will not result in the extinction of the species. The shoreline covered under the Volusia County HCP that is within the proposed critical habitat Unit LOGG–T–FL–05—Ormond-by-the-Sea-Granada Blvd. composes 11.1 km (6.9 mi) of shoreline. This accounts for less than 1 percent of the total critical habitat shoreline proposed for the species. Proposed Unit LOGG–T–FL–05 is a high density nesting beach. The conservation under the HCP would continue for these beaches and, for activities not covered by the HCP, these beaches are occupied and therefore section 7 consultation would still be invoked to consider the project effects on the species. Based on the above discussion, the Secretary is exercising her discretion under section 4(b)(2) of the Act to exclude from this final critical habitat designation Unit LOGG–T–FL–05 in its entirely, totaling 11.1 km (6.9 mi).

Indian River County HCP

We believe the HCP in Indian River County, Florida, titled ''Habitat Conservation Plan for the Protection of Sea Turtles on the Eroding Beaches of Indian River County, Florida,'' fulfills the above criteria, and we therefore conducted a discretionary exclusion analysis for the HCP. The Plan Area covers approximately 35.4 km (22.0 mi) of coastline that is continuous beachfront property uninterrupted by any inlets or ocean passes. The HCP is bounded on the north by the Sebastian Inlet, the centerline of which separates Indian River County from Brevard County. On the south, the Plan Area is defined as the Indian River/St. Lucie County Line. The seaward and landward limits of the HCP Area are the MLW line of the Atlantic Ocean and Highway A1A, respectively. Within the Plan Area is the Archie Carr National Wildlife Refuge (ACNWR) designation, overlaying about 9.7 km (6.0 mi) of beachfront from Sebastian Inlet south. Also, within the Plan Area is the Sebastian Inlet State Park (3.4 km (2.1 mi)) managed by the State of Florida, FDEP, Division of Recreation and Parks, 1.6 km (1.0 mi) of the ACNWR managed by the USFWS, and approximately 1.6 km (1.0 mi) managed by the County, the remaining being private landowners. There are three municipalities that front the beach in Indian River County: The Town of Orchid, the Town of Indian River Shores, and the City of Vero Beach. Collectively, they comprise approximately 15.6 km (9.7 mi; 43 percent) of the County's coastline. Vero Beach is the largest municipality within

Indian River County with 6.8 km (4.2 mi) of shoreline. The ITP does not include the beaches of USFWS-managed ACNWR or the State-managed Sebastian Inlet State Park; however, these areas fall within the HCP Plan Area because the County can carry out mitigation measures in these areas.

The HCP covers activities associated with the County's Emergency Armoring Authorization Actions and potential take of five species of sea turtles (loggerhead, leatherback, green, Kemp's ridley, and hawksbill) for a 30-year period. It does not cover general development activities conducted outside of emergency protection actions during a designated disaster situation. The biological goal of the HCP is to increase the productivity of sea turtle nesting within the County's beaches included in the HCP. The proposed critical habitat unit within the coverage area of the HCP includes LOGG–T–FL–10—Sebastian Inlet-Indian River Shores that includes 17.3 km (10.8 mi) of the total Plan Area of 35.4 km (22 mi) and was selected as a beach adjacent to a high density nesting beach. The measures in the HCP are intended to minimize and mitigate impacts to nesting and hatchling loggerhead sea turtles as a result of the County-authorized emergency beach armoring.

The HCP minimization measures related to incidental take of sea turtles from shoreline protection activities initiated under the County's emergency authorization include:

- Implementation of a public awareness program advocating a proactive approach to shoreline protection;
- Establishment of specific conditions under which Emergency Permits will be issued;
- Regulation of the type and siting of temporary structures;
- Requirements for sea turtle monitoring and nest protection during implementation of emergency shoreline protection measures and/or construction of permanent structures resulting from temporary measures; and
- Implementation of a Memorandum of Agreement with FDEP to coordinate permitting activities and ensure compliance with State regulations regarding emergency shoreline protection activities.

In addition to the minimization measures described above, the County is mitigating unavoidable take through the previous acquisition of coastal property and a predator control program on non-Federal lands that has and will continue to provide quantifiable benefits to sea turtles in excess of the amount of take likely to occur as the result of shoreline protection measures initiated under the County's emergency authorization. The County has also committed to a sea turtle monitoring program that has and will continue to help collect the data needed to better quantify current natural and human-related impacts to sea turtles on the County's beaches. The County coordinates the activities of the various groups monitoring sea turtle nesting activity in the County; standardizes data collection techniques, provides limited logistical support, and maintains a County-wide sea turtle database. The County is responsible for conducting sea turtle monitoring along approximately 8.0 km (5.0 mi) of coastline where no current monitoring program is in place. The County may also assume responsibilities of other entities currently monitoring County Beaches if it is deemed mutually beneficial to do so. This information will be used to better direct the County's limited resources toward those programs that are likely to have the greatest conservation value. Finally, the County will work to improve its light management program in unincorporated areas of the County to reduce the harmful effects of artificial light on sea turtles. The light management is only effective in the unincorporated areas of the County and is not enforceable within the local municipalities of the City of Vero Beach, and the towns of Orchid Beach and Indian River Shores. The overarching biological goal of the HCP is to increase the productivity of the County's beaches as sea turtle nesting habitat.

Compliance with the ITP, issued by the Service in 2004 based on completion of the HCP, has generally been good, but some issues have been experienced in recent years. In general, Indian River County has worked diligently and supported the HCP. However, after the first few years, the budget for the program declined (Indian River County 2010, pp. 36–39). This has been largely due to the severe economic recession that began in 2008 and resulted in substantial budget cuts. The County made substantial gains through 2008 with the nest monitoring program, predator control and education program, but continues to fall short in other areas due to the lack of support staff. The HCP Coordinator position was filled at the start of the ITP and continues to be filled. However, the supervisor position (Coastal Resource Manager), who helped develop and guide the implementation of this HCP, was vacated in early 2010 and the County has no immediate plans to re-fill the position. Furthermore, while annual reports are available for the years 2005, 2006, 2008, 2009, and 2010, no reports have been received for the years covering 2011 through 2013 due to understaffing of the County HCP program.

Under the provisions of the light management program, the County is required to enforce the lighting ordinance within unincorporated areas. The County's Light Management Program has experienced some difficulties largely due to lack of personnel. While lighting violations and disorientations are adequately reported, code enforcement action has been less effective. The number of environmental planning staff in the County that address lighting problems has been reduced. Even minor aspects of the HCP are affected by reduced budgets, support, and personnel. Required lighting notices to beachfront residences have been mailed late. Although the annual reports on the HCP have not been submitted in recent years, the sea turtle nesting report is provided in a timely manner and the County keeps the USFWS apprised of significant events throughout the nesting season. The current process to address lighting problems continues to face some challenges, and more work is needed for full implementation.

If adequately enforced, the Indian River County HCP's beach lighting management plan is expected to benefit the loggerhead terrestrial habitat by maintaining suitable nesting beach habitat with sufficient darkness to ensure nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea. According to assessments of the beach lighting management plan provided in annual reports t, this mitigation measure is not always adequately implemented. A PCE of the species critical habitat is ''Suitable nesting beach habitat with sufficient darkness to ensure nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea.'' Because of the shortfalls in budget and staff, the USFWS intends to work with the County to find solutions to overcome these issues and improve conservation related to light management.

Education of beach users and property owners remains a constant activity and continues to be a primary tool to inform the public, generate interest in sea turtles, and help manage the nesting beaches. The education program has been getting significant help from partners in other agencies and non-profits. Every year newspaper articles, radio talk shows, public presentations,

as well as on-the-beach talks, are given by the HCP coordinator and sea turtle permit surveyors. Educational signs have been created for marked nests. When possible, small grants were obtained for educational materials. The program is maintained by a few dedicated individuals, who continue to conduct public education at every opportunity. There remain many human activities on the beach with the potential to harm nests and turtles, and only some of these are illegal under local ordinances. Law enforcement has been sporadic. On the balance, however, the continual efforts by the County to increase sea turtle awareness have resulted in net positive, on-the-ground conservation benefits for the species.

The Predator Control Plan (PCP) constituted the principal form of mitigation for the incidental take of sea turtles causally related to shoreline protection. The County has met the general intent of the PCP. In the areas where there has been raccoon predation, minimal trapping has been conducted by personnel from the USFWS (Refuges) or contractors with U.S. Department of Agriculture with some support from the County. Complicating predator control is canine predation of turtle nests by a mix of coyote and domestic dogs. Per the 2010 annual report, the issue of canine predation has been difficult to solve because coyotes are not easily trapped and there exists strong sentiments regarding the issue of curtailing the behavior of domestic dogs. However, the recent focus to address canine predation has met the intent of the predator control program. The County is committed to working with partners in animal control and wildlife offices as well as local communities in solving these complex issues. As such, the PCP, which was originally focused on raccoons, has evolved into an informal and diverse attempt to control predation from multiple sources and remains supported by the County. The current situation is unknown because the 2011 through 2013 annual reports have not been submitted.

The sea turtle nest monitoring program has been the cornerstone of the HCP and has required the most time and effort. This is largely due to the high density nesting that occurs in Indian River County. Significant gains in this program have been made in terms of the collection of quality data from individual permit holder groups and the detail and accuracy of the data has remained at a fairly high level. During times when special projects are being conducted on the beach, for example beach nourishment, communication and data reporting problems occur because personnel completing sea turtle surveys and meeting nourishment reporting requirements are unable to keep up with all the permitting reporting and requirements. In addition, the HCP coordinator has increased responsibilities in conducting sea turtle monitoring with little additional support from the County; thus, most resources have been relegated to this effort.

Other actions have been completed by the County in support of the HCP. The County obtained a grant through the National Fish and Wildlife Foundation (NFWF) in 2007 to re-plant dune vegetation, such as sea grapes (*Coccoloba uvifera*), and fix public beachfront lighting problems to improve sea turtle nesting habitat in the County. The grant began in 2007 and was completed in 2009. The vegetation will provide a light screen in the future, provided the plants are not excessively trimmed. Interest in the planting program was lower than expected and only 15 properties planted the sea grapes; the most common reason given for not participating in the project was a property owner's desire for an unobstructed view of the ocean. The second part of the grant consisted of modifying 84 percent of the public lights near the beach resulting in an 87.5 percent reduction in overall light trespass onto the beach. Light management techniques that were developed during this project have been disseminated to other Florida and international sea turtle nesting beach programs. The HCP Coordinator also obtained grants for updating their nest monitoring with geographic information system technology.

Annual reports are to be submitted that describe efforts undertaken to implement the HCP. Since its inception, the annual reports have been delayed. The reports for 2011 through 2013 have not been completed due to lack of staff. However, as noted earlier, the County does work closely with the USFWS's South Florida Ecological Services Office, keeping them apprised on significant events during the nesting season. Monitoring results from the season have been sent to the USFWS in a timely manner, while completion of the annual report is delayed. Lateness or not completing reports are largely because of lack of resources and staff dedicated to working on the many HCP programs. The HCP Coordinator recommends a minimum of two additional staff to help with data reporting, nesting surveys and implementing the light management plan, predator control plan and education program.

Recently, there have been gains in education and accountability. A 2008 lighting workshop hosted by the County was considered a successful event. In addition, a significant number of public beachfront lighting problems have been solved through provision of outside grant funding. County staff continues to do the best it can even with significant shortfalls in the County's budget.

Benefits of Inclusion—Indian River County HCP

As described above, the Indian River County HCP has a very narrow focused incidental take coverage. While the range of incidental take granted is narrow, benefits from minimization and mitigative measures include basic sea turtle nest monitoring, lighting management, predator control, and education. There would still be a need for section 7 consultation on projects outside of the purview of the covered HCP activities that have a Federal nexus. Such projects could include beach nourishment, disaster response, dune restoration, and recovery grants to the State that are federally conducted, funded or permitted. However, as indicated above, the USFWS does not anticipate additional requirements for designated critical habitat beyond those required for the DPS being listed. The incremental benefit to the DPS from the resultant section 7 consultation would be reduced but not eliminated. The inclusion of these areas as critical habitat could therefore provide some additional Federal regulatory benefits not found in the Indian River County HCP. Another potential benefit of including lands in a critical habitat designation is that it serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. On the other hand, a significant part of the Indian River County HCP is to promote education of the beachfront landowners and users about sea turtles and other coastal species, so some of the educational benefits of inclusion would be reduced.

Benefits of Exclusion—Indian River County HCP

Exclusion of these lands from critical habitat would help maintain and foster the successful partnership we have with Indian River County through the development and continued implementation of the HCP. The benefits of excluding the Indian River County HCP from critical habitat also include developing additional partnerships beneficial to the DPS. For

example, the County has worked closely with the sea turtle surveyors to facilitate standardized nest monitoring data collection. The County has no regulatory authority over the surveyors, who provide their data to the County for the HCP; they are also invaluable to alerting the County to issues on the beach including impacts to sea turtle nests and lighting issues. Partnerships that could be but have not yet been developed include working with the Towns of Orchid Beach and Indian River Shores to facilitate lighting compliance. The County currently has no enforcement capabilities in these municipalities but does have influence and a close working relationship with the Towns. In addition, the County's HCP Coordinator has taken over sea turtle nesting surveys for the City of Vero Beach and South Indian River Shores. Fostering partnerships with these municipalities could result in assistance from the municipalities to complete the surveys. The County's HCP Coordinator essentially manages the HCP and conducts a large amount of the on the ground HCP work without sufficient support from the County. More partnerships could be developed with regard to education, sea turtle nest monitoring, and data collection.

Additionally, the designation of critical habitat could have an unintended negative effect on the Service's relationship with non-Federal landowners within and outside of the area covered by the HCP due to the perceived imposition of redundant government regulation. If lands within the area cover by the HCP for the benefit of the DPS are designated as critical habitat, it could have a dampening effect on our continued ability to seek new partnerships with future participants including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement various conservation actions (such as safe harbor agreements (SHAs), HCPs, and other conservation plans, particularly large, regional conservation plans that involve numerous participants or address landscape-level conservation of species and habitats) that we would be unable to accomplish otherwise.

Benefits of Exclusion Outweigh Benefits of Inclusion—Indian River County HCP

The Secretary has determined that the benefits of excluding the Indian River County HCP from the designation of critical habitat for the DPS outweigh the benefits of including this area in critical habitat. Indian River County has shown in the 9 years of implementing the HCP that when it has adequate resources, it is committed to the HCP: Improving the process, securing high quality data and scientific information to better inform decisions, and seeking compatibility with the beach user groups and conservation of nesting sea turtles and other coastal species. While there have been recent funding and staffing problems, resulting in some compliance issues, the County has had tremendous success on many fronts, especially nest monitoring and in general sea turtle education and awareness. These conservation efforts have directly benefitted sea turtles in Indian River County. There is a strong possibility that additional partnerships will be fostered as a result of the HCP and our partnership with the County that will further improve the current benefits to the species.

The HCP covers only non-Federal lands. Thus, there would still be need for section 7 consultation on projects outside of the purview of the HCP activities that have a Federal nexus as a result of Federal actions, authorizations, or funding. The benefits of inclusion in critical habitat at these sites would be minimized since the area is occupied by the species and section 7 consultation would still be required for projects with a Federal nexus to consider the project's effects on the species (i.e., regardless of whether or not critical habitat is designated).

This HCP was intended to cover incidental take of sea turtle related to emergency shoreline protection activities permitted by Indian River County, Florida, as provided by the Florida Statue 161. Overall, the measures provided for in the HCP address the intended purpose of the HCP. While the County has had budgetary and staffing challenges that have affected their ability to consistently support the HCP, they have continued to implement the minimization and mitigation measures to the best of their ability. The USFWS believes that these challenges can be overcome and intends to work with the County to do so.

Exclusion of these lands from critical habitat would help foster the partnership we have developed with Indian River County through the development and continued implementation of the HCP. Exclusion of these lands will also help us maintain and improve an important and successful partnership with the County as it continues its partnership with the local municipalities, sea turtle monitoring groups and the State of Florida. Recognizing the important contributions of our conservation partners through exclusion from critical habitat helps to preserve these partnerships, and helps foster future partnerships for the benefit of listed species, the majority of which do not occur on Federal lands; we consider this to be a substantial benefit of exclusion. For these reasons, we have determined, after careful balancing, that the benefits of exclusion of lands covered by the Indian River County HCP from critical habitat for the DPS outweigh the benefits of inclusion.

Exclusion Will Not Result in the Extinction of the Species—Indian River County HCP

Because the HCP has, for the most part, a successful and committed record of implementation despite the recent challenges, the coverage area of the HCP includes the loggerhead sea turtle and its habitat, and the HCP specifically addresses the loggerhead sea turtle's habitat and meets the conservation needs of the species within the plan area, the Secretary has determined that exclusion of this area will not result in the extinction of the species. The shoreline covered under the Indian River HCP is within the proposed critical habitat Unit LOGG–T–FL–10—Sebastian Inlet—Indian River Shores, accounting for 17.3 km (10.8 mi) of shoreline with the unit. This accounts for less than 1 percent of the total critical habitat shoreline proposed for the species. Proposed Unit LOGG–T–FL–10 was selected as a critical habitat unit because it is adjacent to a high density nesting beach. The conservation under the HCP would continue for these beaches and, for activities not covered by the HCP, these beaches are occupied and therefore section 7 consultation would still be invoked to consider the project effects on the species. Based on the above discussion, the Secretary is exercising her discretion under section 4(b)(2) of the Act to exclude from this final critical habitat designation portions of Unit LOGG–T–FL–10, totaling 17.3 km (10.8 mi).

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is significant because it will raise novel legal or policy issues.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty,

and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

The Service's current understanding of the requirements under the RFA, as amended, and following recent court decisions, is that Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and therefore, not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the Agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7 only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation. There is no requirement under RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities are directly regulated by this rulemaking, the Service certifies that the final critical habitat designation will not have a significant economic impact on a substantial number of small entities. However, it is the current practice of the USFWS to assess, to the extent practicable, these potential impacts if sufficient data are available, whether or not this analysis is believed by the Service to be strictly required by the RFA.

During the development of this final rule we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute ''a significant adverse effect'' when compared to not taking the regulatory action under consideration. Natural gas and oil activities in State and Federal waters occur offshore of the States of Alabama, Mississippi, and Florida in the Gulf of Mexico (GOM) where critical habitat is being designated for the species. Potential direct and indirect effects to designated critical habitat could result from associated oil and gas activities, including, but not limited to, pipeline installation and maintenance, coastal-based facilities, boat vessel traffic, and spills. USFWS and the Bureau of Ocean Energy and Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) have a long history of intra-agency coordination and consultation under the Act on offshore outer continental shelf (OCS) oil and gas since the 1970s. Consultation occurs on the 5-year Multi-lease Sale Program and then on each individual lease sale in that program as they occur. As a result, regulations and other measures are in place to minimize impacts of natural gas and oil exploration, development, production, and abandonment in the GOM OCS. The regulations and measures are generally not considered a substantial cost compared with overall project costs and are already being implemented by oil and gas companies.

The most recent consultation completed was for the GOM OCS 2007–2012 Program and Supplemental Lease Sales 2009–2012 and the initial coordination on the proposed 2012–2017 Multi-lease Sale Program. In 2010, Minerals Management Service (as it was known at the time) reinitiated the 2007 consultation as a result of the Deep Water Horizon oil spill. Currently, BOEM and BSEE are working with the USFWS on a programmatic consultation. Individual lease sales consultations have been completed for the 2007–2012 and 2009–2012 Programs. Most of the eastern GOM, including the Straits of Florida (Alabama and Florida), remains under a congressionally mandated moratorium and is not proposed for new leasing in either the 2007–2012 or 2012–2017 Multi-lease Sale Programs. BOEM will move forward with an environmental analysis for potential seismic studies in the Mid- and South Atlantic planning areas (Florida Atlantic coast, Georgia,

South Carolina, and North Carolina), but no lease sales will be scheduled in the Atlantic until at least mid-2017. The States of Mississippi and Alabama have oil and gas programs in their respective State waters. USFWS only conducts consultation in accordance with the Act on oil and gas activities within State waters where there is a Federal nexus (discharge, wetland impacts, or navigation permits).

No other activities associated with energy supply, distribution, or use are anticipated within the critical habitat designation. We do not expect the designation of this critical habitat to significantly affect energy supplies, distribution, or use. Thus, based on information in the economic analysis, energy-related impacts associated with the loggerhead sea turtle conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' These terms are defined in 2 U.S.C. 658(5)–(7). ''Federal intergovernmental mandate'' includes a regulation that ''would impose an enforceable duty upon State, local, or tribal governments'' with two exceptions. It excludes ''a condition of Federal assistance.'' It also excludes ''a duty arising from participation in a voluntary Federal program,'' unless the regulation ''relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,'' if the provision would ''increase the stringency of conditions of assistance'' or ''place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding,'' and the State, local, or tribal governments ''lack authority'' to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. ''Federal private sector mandate'' includes a regulation that ''would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.''

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments. A portion of the lands being designated for critical habitat is owned by State, County, or local municipalities. Small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. Consequently, we do not believe that the critical habitat designation will significantly or uniquely affect small government entities. As such, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights''), we have analyzed the potential takings implications of designating critical habitat for the loggerhead sea turtle in a takings implications assessment. As discussed above, the designation of critical habitat affects only Federal actions. Although private parties that receive Federal funding or assistance, or require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. The takings implications assessment concludes that this designation of critical habitat for the loggerhead sea turtle does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this final rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this critical habitat designation with, appropriate State resource agencies in North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi. We received comments from North Carolina Department of Environment and Natural Resources' Division of Coastal Management, South Carolina Department of Health and Environmental Control, Governor of South Carolina, South Carolina Department of Parks, Recreation and Tourism, GDNR Coastal Resources Division, FDEP, FWC, and Mississippi Development Authority. We have addressed them in the Summary of Comments and Recommendations section of this rule. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more

clearly defined, and the physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Executive Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of PBFs essential to the conservation of the loggerhead sea turtle. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested parties to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to NEPA in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We determined that there are no tribal lands that were occupied by the loggerhead sea turtle at the time of listing that contain the features essential for conservation of the species. Therefore, we are not designating critical habitat for the loggerhead sea turtle on tribal lands.

References Cited

A complete list of references cited in this rulemaking is available on the Internet at *http://www.regulations.gov* and upon request from the North Florida Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the North Florida Ecological Services Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; 4201–4245, unless otherwise noted.

■ 2. Amend § 17.11(h) by revising the entry for ''Sea turtle, loggerhead, Northwest Atlantic Ocean'' under REPTILES in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
REPTILES							
*	*	*	*	*	*		*
Sea turtle, loggerhead, Northwest Atlantic Ocean.	*Caretta caretta*	Northwest Atlantic Ocean Basin.	Northwest Atlantic Ocean north of the equator, south of 60° N. Lat., and west of 40° W. Long.	T	794	17.95(c)	NA

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*

■ 3. In § 17.95, amend paragraph (c) by adding an entry for ''Loggerhead Sea Turtle, Northwest Atlantic Ocean (*Caretta caretta*),'' in the same alphabetical order that the species appears in the table at § 17.11(h), to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(c) *Reptiles.*

* * * * *

Loggerhead Sea Turtle, Northwest Atlantic Ocean (*Caretta caretta*)

(1) Critical habitat units are depicted for the following areas on the maps below:

(i) North Carolina—Brunswick, Carteret, New Hanover, Onslow, and Pender Counties;

(ii) South Carolina—Beaufort, Charleston, Colleton, and Georgetown Counties;

(iii) Georgia—Camden, Chatham, Liberty, and McIntosh Counties;

(iv) Florida—Bay, Brevard, Broward, Charlotte, Collier, Duval, Escambia, Flagler, Franklin, Gulf, Indian River, Lee, Manatee, Martin, Monroe, Palm Beach, Sarasota, St. Johns, St. Lucie, and Volusia Counties;

(v) Alabama—Baldwin County; and

(vi) Mississippi—Jackson County.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the Northwest Atlantic Ocean distinct population segment of the loggerhead sea turtle are the extra-tidal or dry sandy beaches from the mean high-water line to the toe of the secondary dune, which are capable of supporting a high density of nests or serving as an expansion area for beaches with a high density of nests and that are well distributed within each State, or region within a State, and representative of total nesting, consisting of four components:

(i) Suitable nesting beach habitat that:

(A) Has relatively unimpeded nearshore access from the ocean to the beach for nesting females and from the beach to the ocean for both post-nesting females and hatchlings; and

(B) Is located above mean high water to avoid being inundated frequently by high tides.

(ii) Sand that:

(A) Allows for suitable nest construction;

(B) Is suitable for facilitating gas diffusion conducive to embryo development; and

(C) Is able to develop and maintain temperatures and a moisture content conducive to embryo development.

(iii) Suitable nesting beach habitat with sufficient darkness to ensure that nesting turtles are not deterred from emerging onto the beach and hatchlings and post-nesting females orient to the sea.

(iv) Natural coastal processes or artificially created or maintained habitat mimicking natural conditions. This includes artificial habitat types that mimic the natural conditions described in paragraphs (2)(i), (2)(ii), and (2)(iii) of this entry for beach access, nest site selection, nest construction, egg deposition and incubation, and hatchling emergence and movement to the sea. Habitat modification and loss occurs with beach stabilization activities that prevent the natural transfer and erosion and accretion of sediments along the ocean shoreline. Beach stabilization efforts that may impact loggerhead nesting include beach nourishment, beach maintenance, sediment dredging and disposal, inlet channelization, and construction of jetties and other hard structures. However, when sand placement activities result in beach habitat that mimics the natural beach habitat conditions, impacts to sea turtle nesting habitat are minimized.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on August 11, 2014.

(4) *Critical habitat map units.* Data layers defining map units were created using Google Earth imagery, then refined using Bing imagery. Unit descriptions were then mapped using North America Lambert Conformal Conic coordinates. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site at *http://www.fws.gov/northflorida,* at *http:www.regulations.gov* at Docket No. FWS–R4–ES–2012–0103, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the USFWS regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) *Note:* Index map follows:

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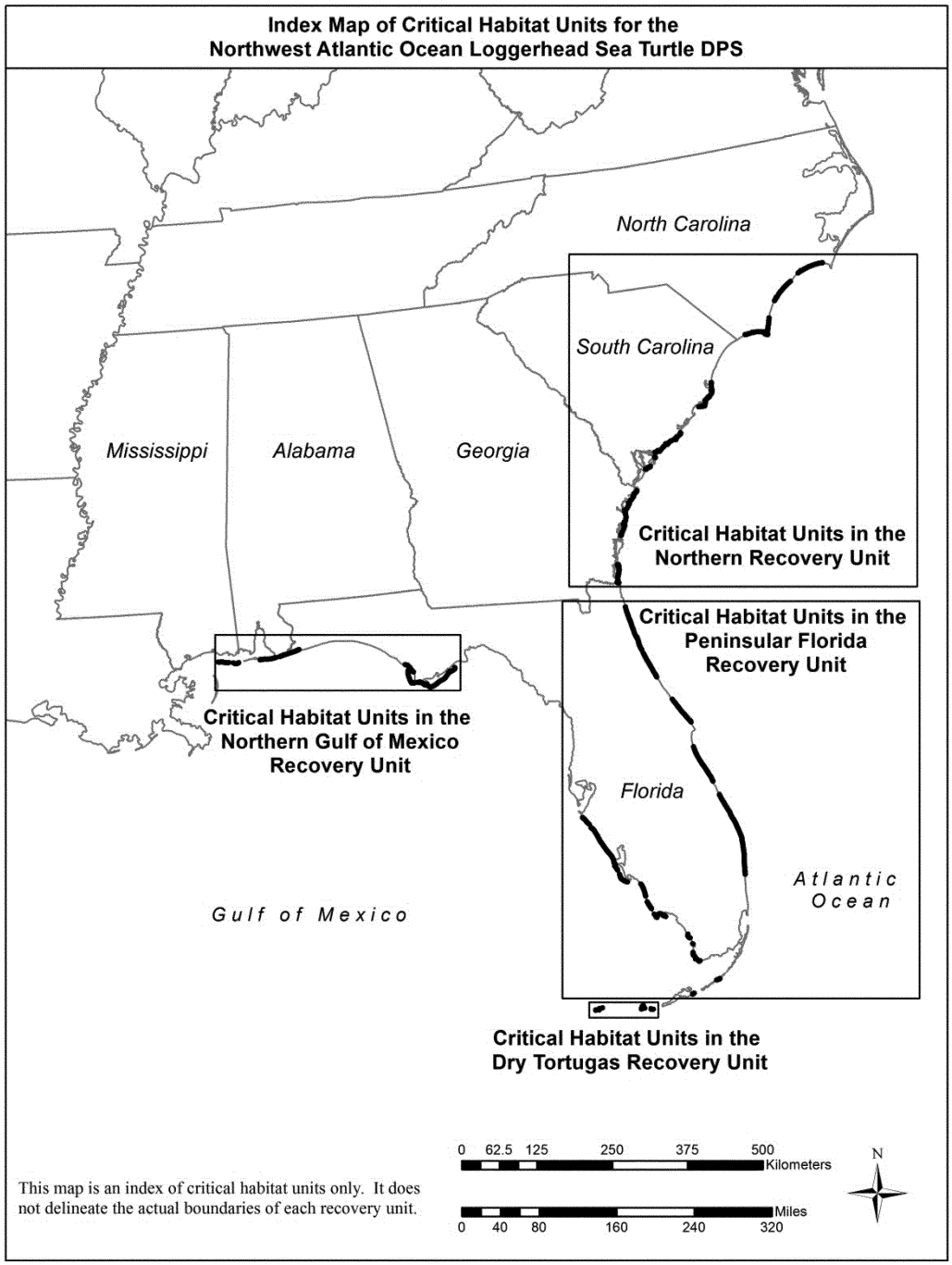
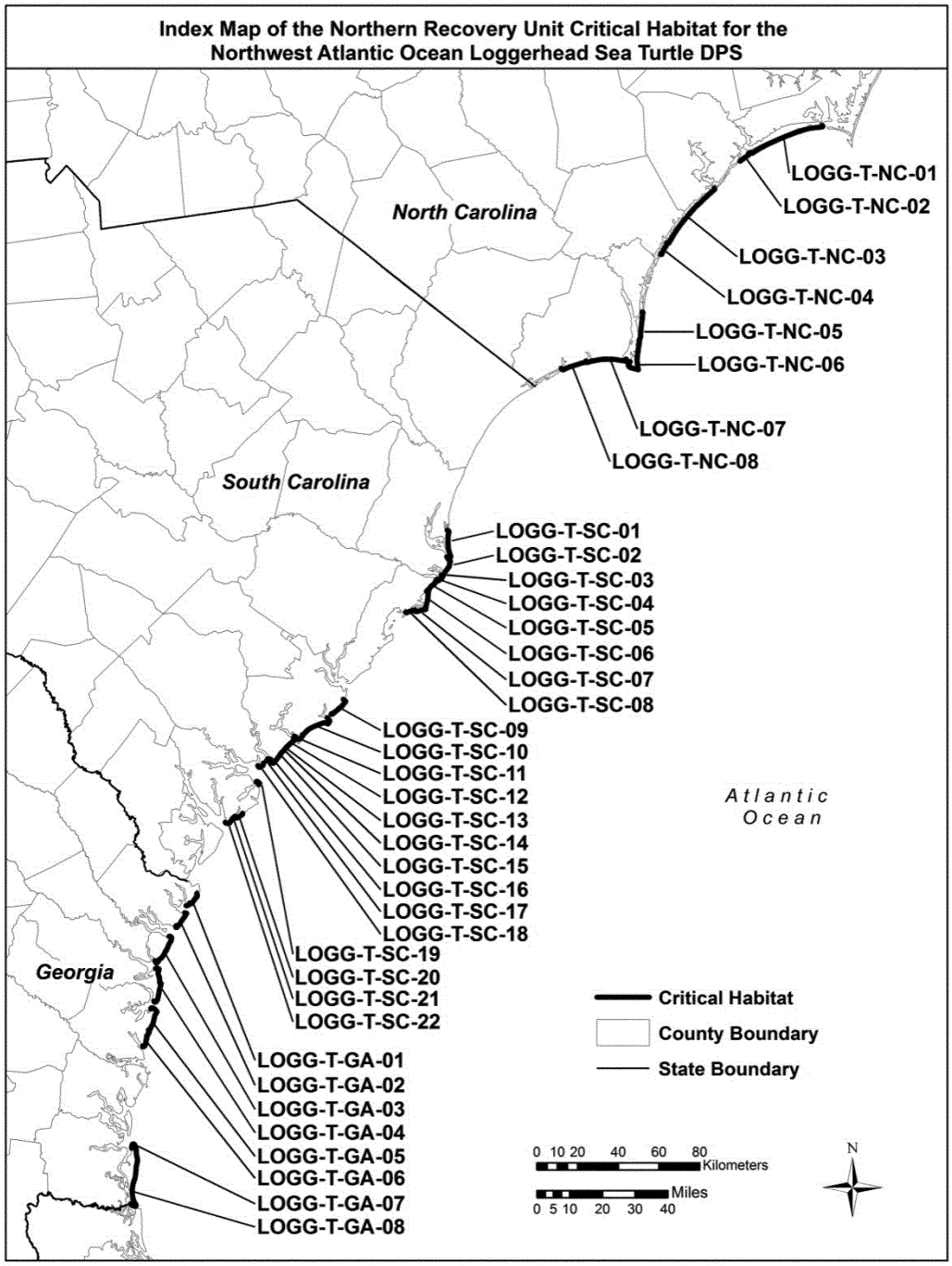


(6) *Note:* Index map of critical habitat units in the Northern Recovery Unit:



(7)(i) Units:

(A) LOGG–T–NC–01—Boque Banks, Carteret County, North Carolina.

(B) LOGG–T–NC–02—Bear Island, Onslow County, North Carolina.

(C) LOGG–T–NC–03—Topsail Island, Onslow and Pender Counties, North Carolina.

(D) LOGG–T–NC–04—Lea-Hutaff Island, Pender County, North Carolina.

(ii) General descriptions of units:

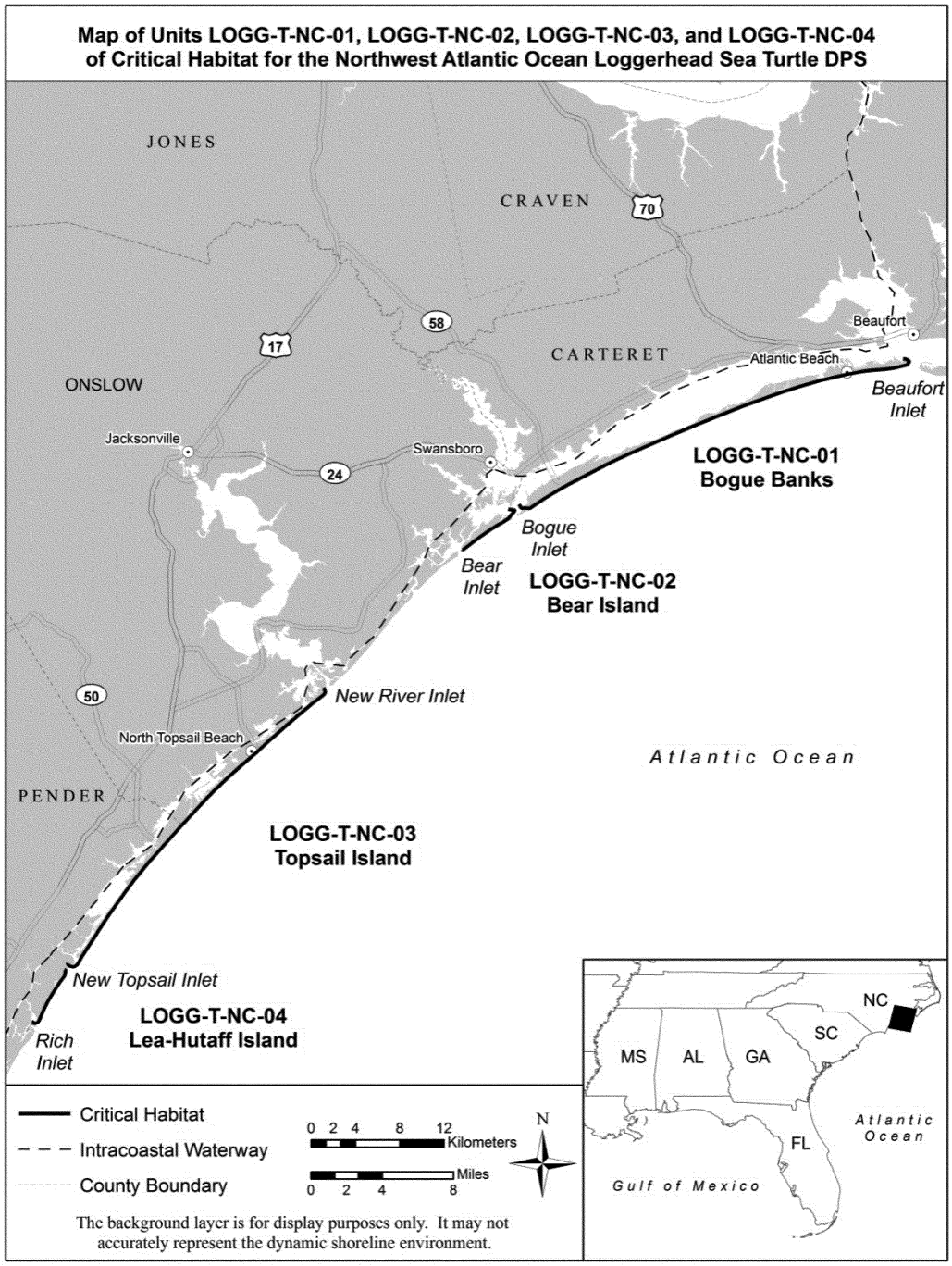
(A) LOGG–T–NC–01—Boque Banks: This unit consists of 38.9 km (24.2 mi) of island shoreline along the Atlantic Ocean and extends from Beaufort Inlet to Bogue Inlet.

(B) LOGG–T–NC–02—Bear Island: This unit consists of 6.6 km (4.1 mi) of island shoreline along the Atlantic Ocean and extends from Bogue Inlet to Bear Inlet.

(C) LOGG–T–NC–03—Topsail Island: This unit consists of 35.0 km (21.8 mi) of island shoreline along the Atlantic Ocean and extends from New River Inlet to New Topsail Inlet.

(D) LOGG–T–NC–04—Lea-Hutaff Island: This unit consists of 6.1 km (3.8 mi) of island shoreline along the Atlantic Ocean and extends from New Topsail Inlet to Rich Inlet.

(iii) Map of Units LOGG–T–NC–01, LOGG–T–NC–02, LOGG–T–NC–03, and LOGG–T–NC–04 follows:



(8)(i) Units:

(A) LOGG–T–NC–05—Pleasure Island, New Hanover County, North Carolina.

(B) LOGG–T–NC–06—Bald Head Island, Brunswick County, North Carolina.

(C) LOGG–T–NC–07—Oak Island, Brunswick County, North Carolina.

(D) LOGG–T–NC–08—Holden Beach, Brunswick County, North Carolina.

(ii) General descriptions of units:

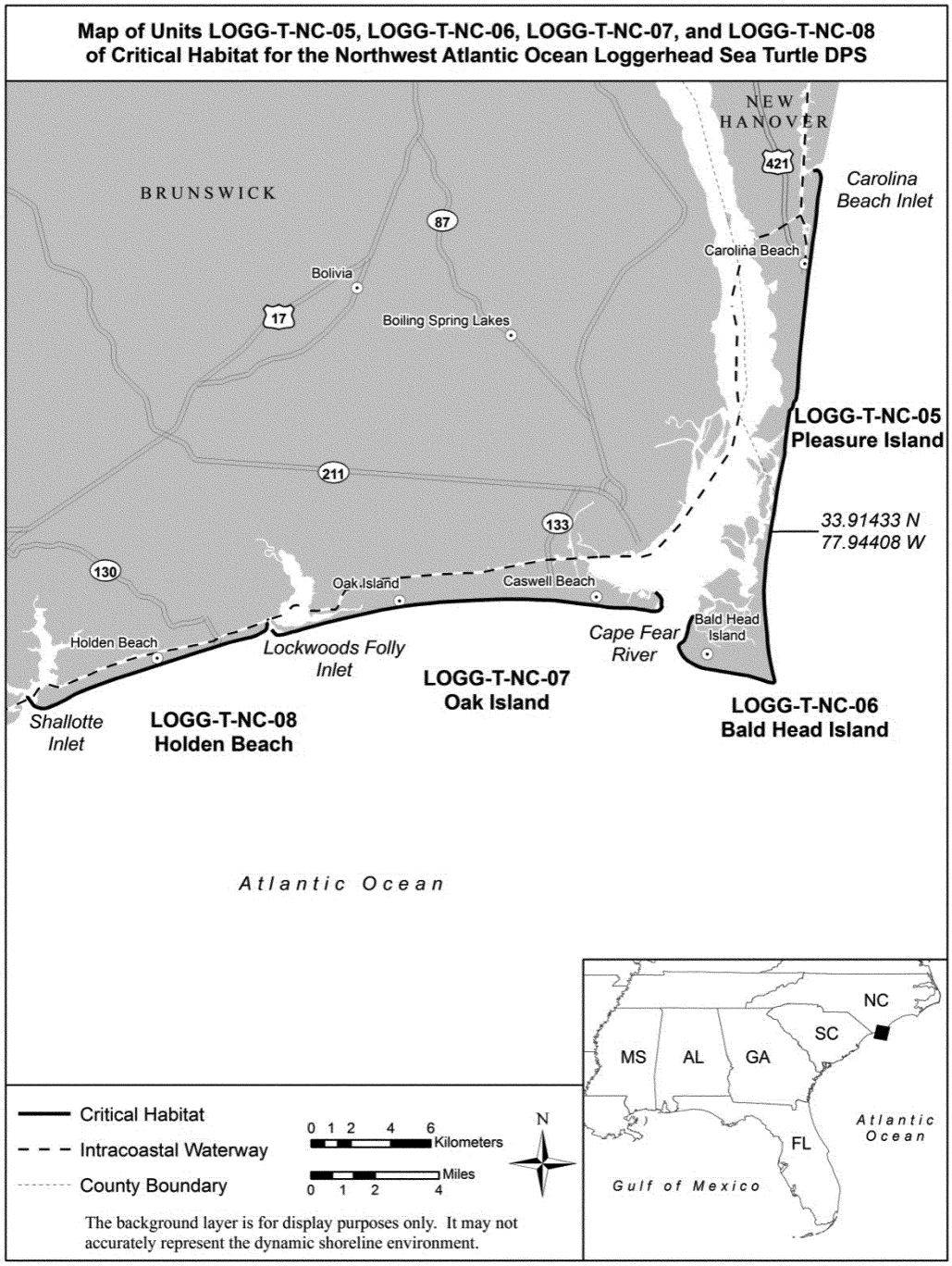
(A) LOGG–T–NC–05—Pleasure Island: This unit consists of 18.6 km (11.5 mi) of island shoreline along the Atlantic Ocean and extends from Carolina Beach Inlet to 33.91433 N, 77.94408 W (historic location of Corncake Inlet).

(B) LOGG–T–NC–06—Bald Head Island: This unit consists of 15.1 km (9.4 mi) of island shoreline along the Atlantic Ocean and extends from 33.91433 N, 77.94408 W (historic location of Corncake Inlet) to the mouth of the Cape Fear River.

(C) LOGG–T–NC–07—Oak Island: This unit consists of 20.9 km (13.0 mi) of island shoreline along the Atlantic Ocean and extends from the mouth of the Cape Fear River to Lockwoods Folly Inlet.

(D) LOGG–T–NC–08—Holden Beach: This unit consists of 13.4 km (8.3 mi) of island shoreline along the Atlantic Ocean and extends from Lockwoods Folly Inlet to Shallotte Inlet.

(iii) Map of Units LOGG–T–NC–05, LOGG–T–NC–06, LOGG–T–NC–07, and LOGG–T–NC–08 follows:



(9)(i) Units:

(A) LOGG–T–SC–01—North Island, Georgetown County, South Carolina.

(B) LOGG–T–SC–02—Sand Island, Georgetown County, South Carolina.

(C) LOGG–T–SC–03—South Island, Georgetown County, South Carolina.

(D) LOGG–T–SC–04—Cedar Island, Georgetown County, South Carolina.

(E) LOGG–T–SC–05—Murphy Island, Charleston County, South Carolina.

(ii) General descriptions of units:

(A) LOGG–T–SC–01—North Island: This unit consists of 13.2 km (8.2 mi) of island shoreline along the Atlantic Ocean and extends from North Inlet to Winyah Bay.

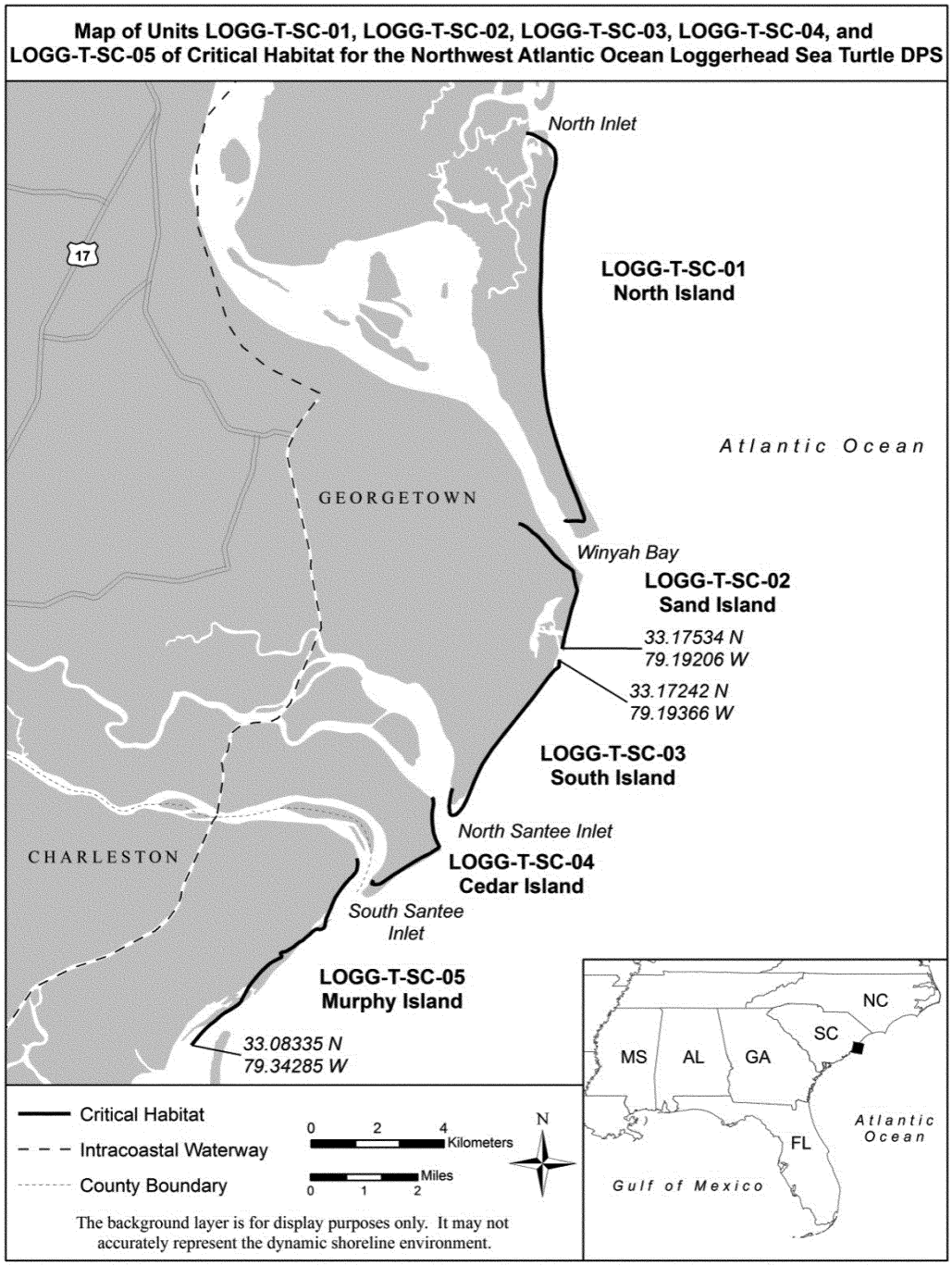
(B) LOGG–T–SC–02—Sand Island: This unit consists of 4.7 km (2.9 mi) of island shoreline along the Atlantic Ocean and Winyah Bay and extends from Winyah Bay to 33.17534 N, 79.19206 W (northern boundary of an unnamed inlet separating Sand Island and South Island).

(C) LOGG–T–SC–03—South Island: This unit consists of 6.7 km (4.2 mi) of island shoreline along the Atlantic Ocean and extends from 33.17242 N, 79.19366 W (southern boundary of an unnamed inlet separating Sand Island and South Island) to North Santee Inlet.

(D) LOGG–T–SC–04—Cedar Island: This unit consists of 4.1 km (2.5 mi) of island shoreline along the Atlantic Ocean and North Santee Inlet and extends from North Santee Inlet to South Santee Inlet.

(E) LOGG–T–SC–05—Murphy Island: This unit consists of 8.0 km (5.0 mi) of island shoreline along the Atlantic Ocean and South Santee Inlet and extends from South Santee Inlet to 33.08335 N, 79.34285 W.

(iii) Map of Units LOGG–T–SC–01, LOGG–T–SC–02, LOGG–T–SC–03, LOGG–T–SC–04, and LOGG–T–SC–05 follows:



(10)(i) Units:

(A) LOGG–T–SC–06—Cape Island, Charleston County, South Carolina.

(B) LOGG–T–SC–07—Lighthouse Island, Charleston County, South Carolina.

(C) LOGG–T–SC–08—Raccoon Key, Charleston County, South Carolina.

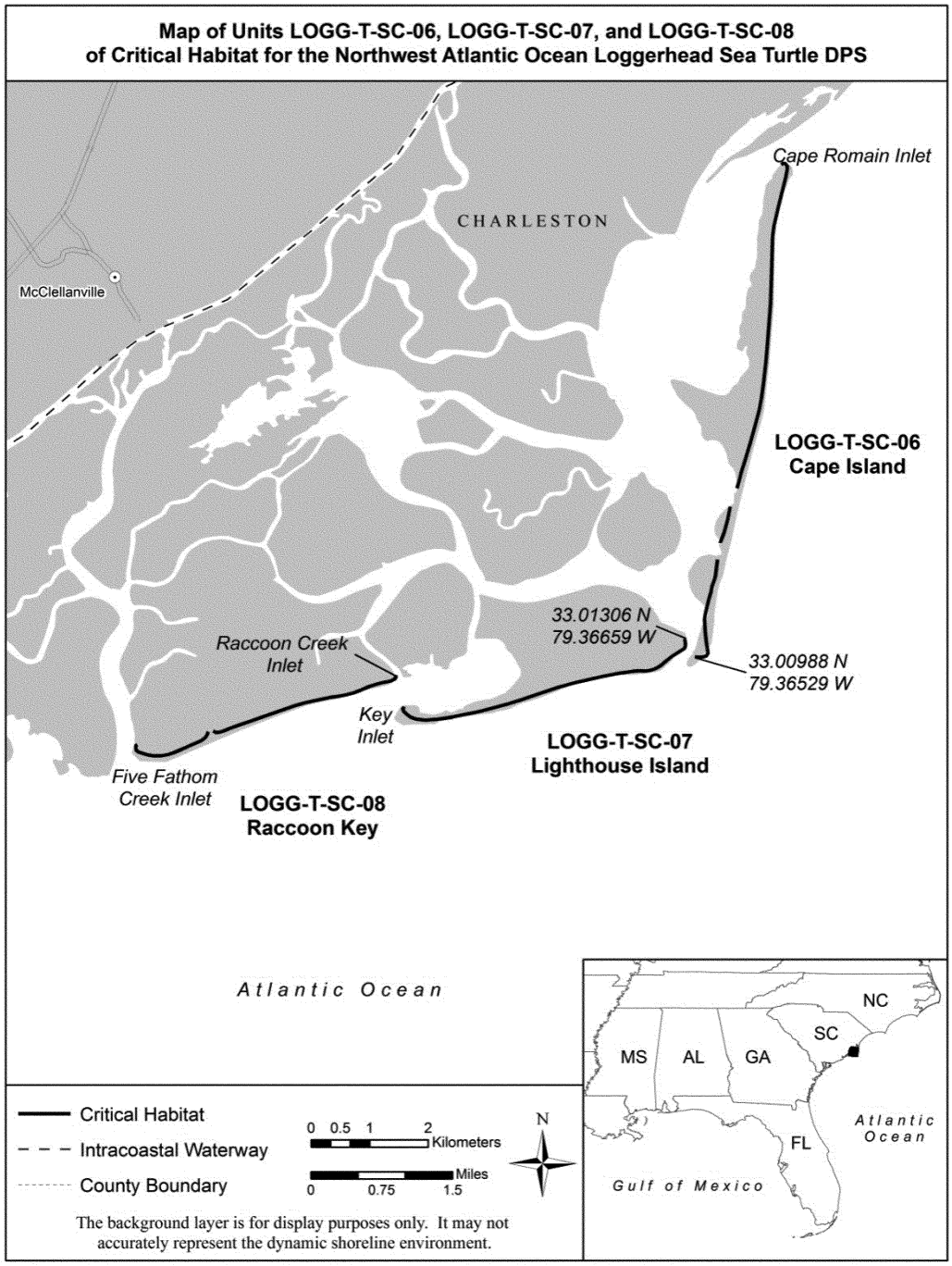
(ii) General descriptions of units:

(A) LOGG–T–SC–06—Cape Island: This unit consists of 8.3 km (5.1 mi) of island shoreline along the Atlantic Ocean and extends from Cape Romain Inlet to 33.00988 N, 79.36529 W (northern boundary of an unnamed inlet between Cape Island and Lighthouse Island).

(B) LOGG–T–SC–07—Lighthouse Island: This unit consists of 5.3 km (3.3 mi) of island shoreline along the Atlantic Ocean and extends from 33.01306 N, 79.36659 W (southern boundary of an unnamed inlet between Cape Island and Lighthouse Island) to Key Inlet.

(C) LOGG–T–SC–08—Raccoon Key: This unit consists of 4.8 km (3.0 mi) of island shoreline along the Atlantic Ocean and extends from Raccoon Creek Inlet to Five Fathom Creek Inlet.

(iii) Map of Units LOGG–T–SC–06, LOGG–T–SC–07, and LOGG–T–SC–08 follows:



(11)(i) Units:

(A) LOGG–T–SC–09—Folly Island, Charleston County, South Carolina.

(B) LOGG–T–SC–10—Kiawah Island, Charleston County, South Carolina.

(C) LOGG–T–SC–11—Seabrook Island, Charleston County, South Carolina.

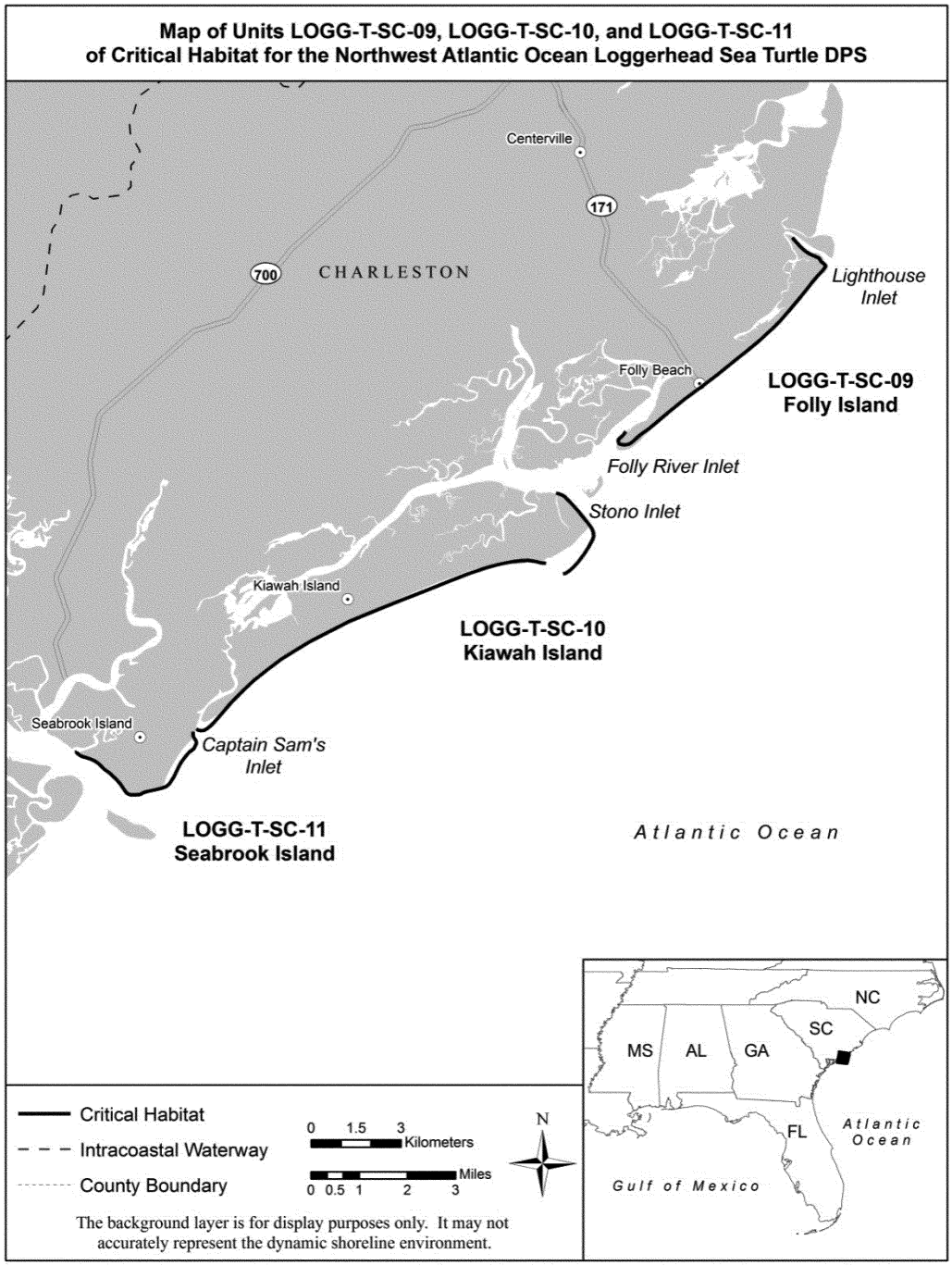
(ii) General descriptions of units:

(A) LOGG–T–SC–09—Folly Island: This unit consists of 11.2 km (7.0 mi) of island shoreline along the Atlantic Ocean and extends from Lighthouse Inlet to Folly River Inlet.

(B) LOGG–T–SC–10—Kiawah Island: This unit consists of 17.0 km (10.6 mi) of island shoreline along the Atlantic Ocean and Stono Inlet and extends from Stono Inlet to Captain Sam's Inlet.

(C) LOGG–T–SC–11—Seabrook Island: This unit consists of 5.8 km (3.6 mi) of island shoreline along the Atlantic Ocean and North Edisto Inlet and extends from Captain Sam's Inlet to North Edisto Inlet.

(iii) Map of Units LOGG–T–SC–09, LOGG–T–SC–10, and LOGG–T–SC–11 follows:



(12)(i) Units:

(A) LOGG–T–SC–12—Botany Bay Island and Botany Bay Plantation, Charleston County, South Carolina.

(B) LOGG–T–SC–13—Interlude Beach, Charleston County, South Carolina.

(C) LOGG–T–SC–14—Edingsville Beach, Charleston County, South Carolina.

(D) LOGG–T–SC–15—Edisto Beach State Park, Colleton County, South Carolina.

(E) LOGG–T–SC–16—Edisto Beach, Colleton County, South Carolina.

(ii) General descriptions of units:

(A) LOGG–T–SC–12—Botany Bay Island and Botany Bay Plantation: This unit consists of 6.6 km (4.1 mi) of island shoreline along the Atlantic Ocean and North Edisto Inlet and extends from North Edisto Inlet to 32.53710 N, 80.24614 W (northern boundary of an unnamed inlet separating Botany Bay Plantation and Interlude Beach).

(B) LOGG–T–SC–13—Interlude Beach: This unit consists of 0.9 km (0.6 mi) of island shoreline along the Atlantic Ocean and extends from 32.53636 N, 80.24647 W (southern boundary of an unnamed inlet separating Interlude Beach and Botany Bay Plantation) to Frampton Inlet.

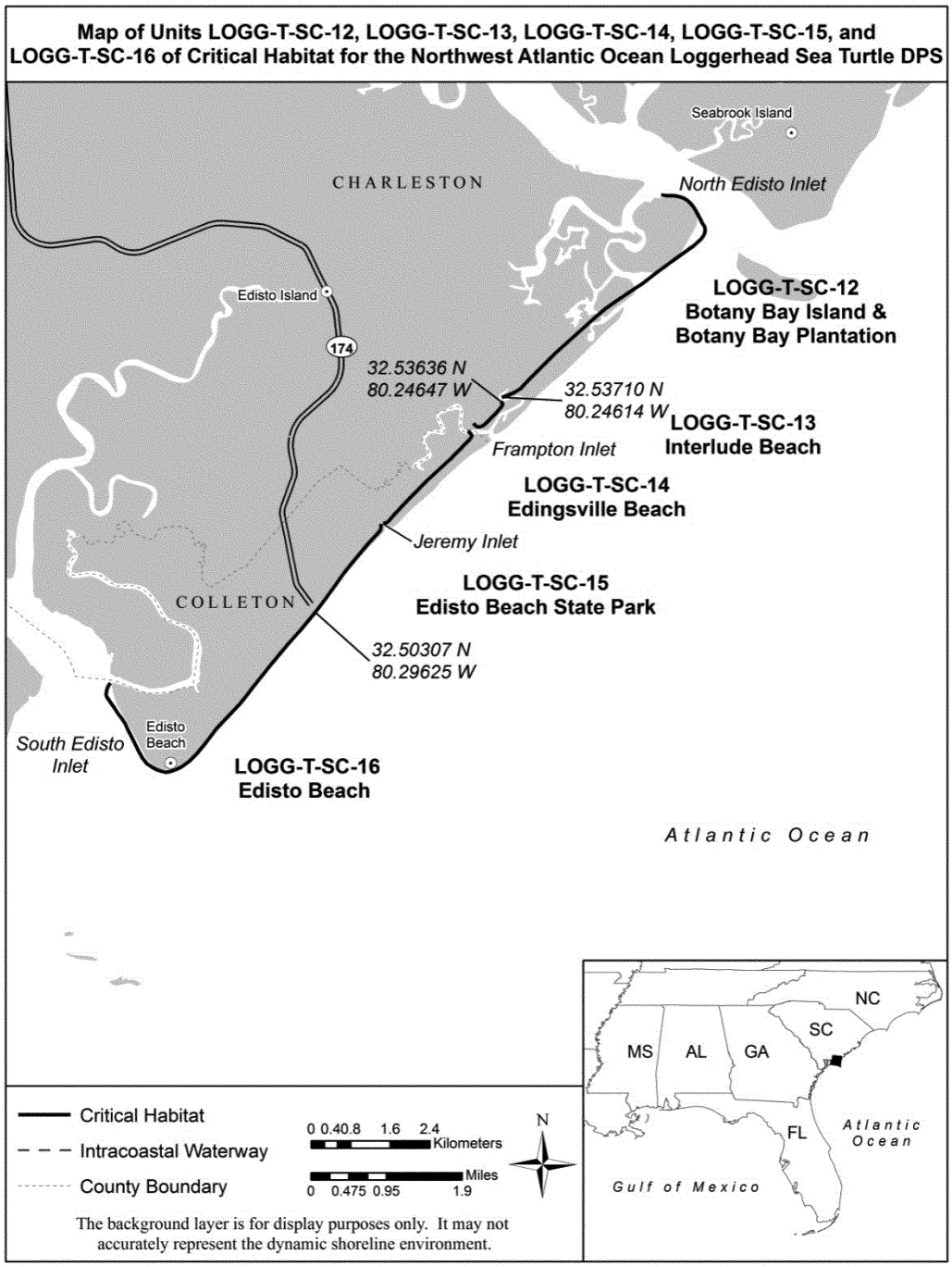
(C) LOGG–T–SC–14—Edingsville Beach: This unit consists of 2.7 km (1.7 mi) of island shoreline along the Atlantic Ocean and extends from Frampton Inlet to Jeremy Inlet.

(D) LOGG–T–SC–15—Edisto Beach State Park: This unit consists of 2.2 km (1.4 mi) of island shoreline along the Atlantic Ocean and extends from Jeremy Inlet to 32.50307 N, 80.29625 W (State Park boundary separating Edisto Beach

State Park and the Town of Edisto Beach).

(E) LOGG–T–SC–16—Edisto Beach: This unit consists of 6.8 km (4.2 mi) of island shoreline along the Atlantic Ocean and South Edisto River and extends from 32.50307 N, 80.29625 W (State Park boundary separating Edisto Beach State Park and the Town of Edisto Beach) to South Edisto Inlet.

(iii) Map of Units LOGG–T–SC–12, LOGG–T–SC–13, LOGG–T–SC–14, LOGG–T–SC–15, and LOGG–T–SC–16 follows:



(13)(i) Units:

(A) LOGG–T–SC–17—Pine Island, Colleton County, South Carolina.

(B) LOGG–T–SC–18—Otter Island, Colleton County, South Carolina.

(C) LOGG–T–SC–19—Harbor Island, Beaufort County, South Carolina.

(ii) General descriptions of units:

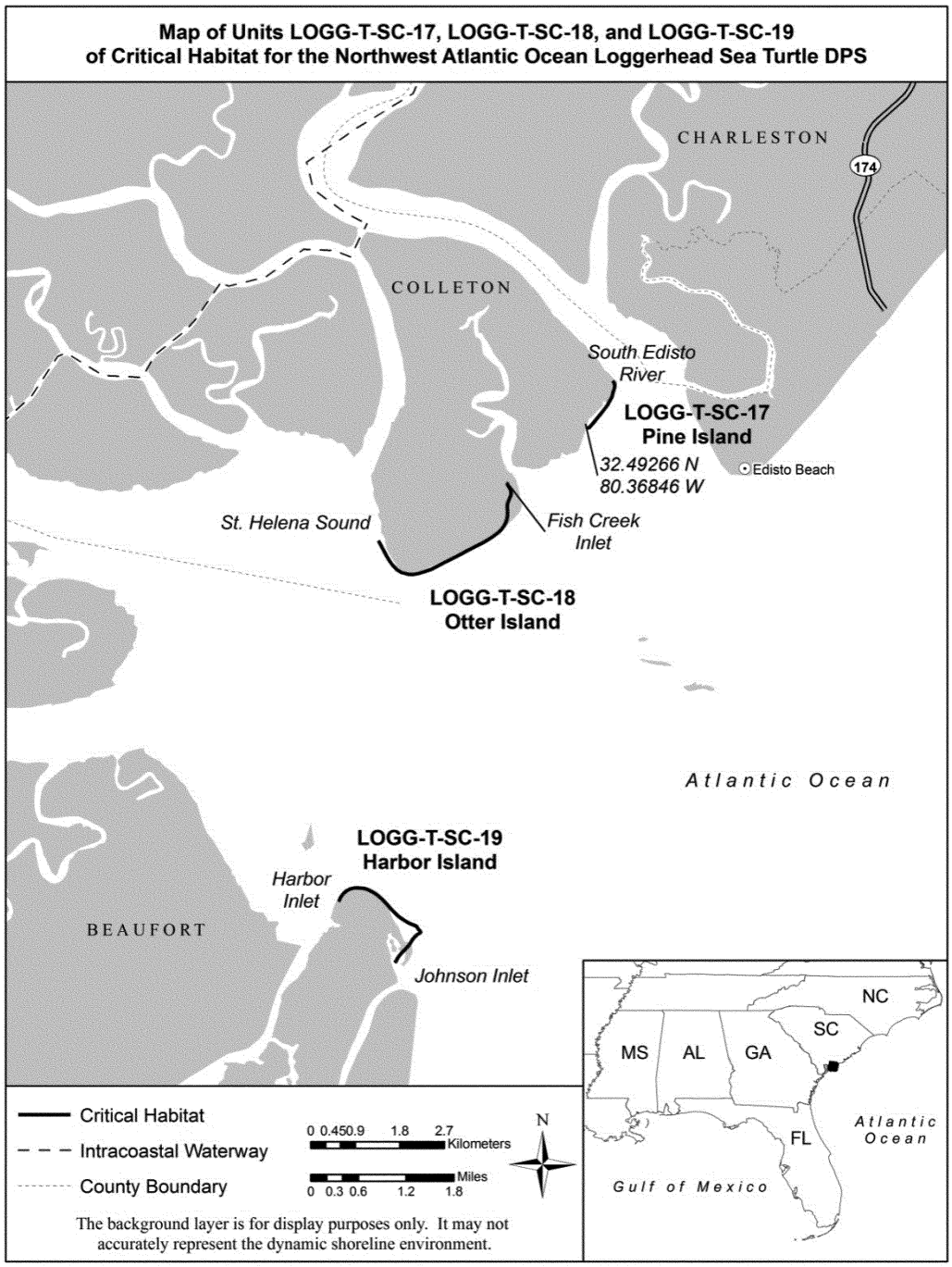
(A) LOGG–T–SC–17—Pine Island: This unit consists of 1.2 km (0.7 mi) of island shoreline along the South Edisto Inlet and extends from South Edisto River to 32.49266 N, 80.36846 W (northern boundary of an unnamed inlet to Fish Creek).

(B) LOGG–T–SC–18—Otter Island: This unit consists of 4.1 km (2.5 mi) of island shoreline along the Atlantic Ocean and Saint Helena Sound and extends from Fish Creek Inlet to Saint Helena Sound.

(C) LOGG–T–SC–19—Harbor Island: This unit consists of 2.9 km (1.8 mi) of

island shoreline along the Atlantic Ocean and Saint Helena Sound and extends from Harbor Inlet to Johnson Inlet.

(iii) Map of Units LOGG–T–SC–17, LOGG–T–SC–18, and LOGG–T–SC–19 follows:



(14)(i) Units:

(A) LOGG–T–SC–20—Little Capers Island, Beaufort County, South Carolina

(B) LOGG–T–SC–21—St. Phillips Island, Beaufort County, South Carolina

(C) LOGG–T–SC–22—Bay Point Island, Beaufort County, South Carolina

(ii) General descriptions of units:

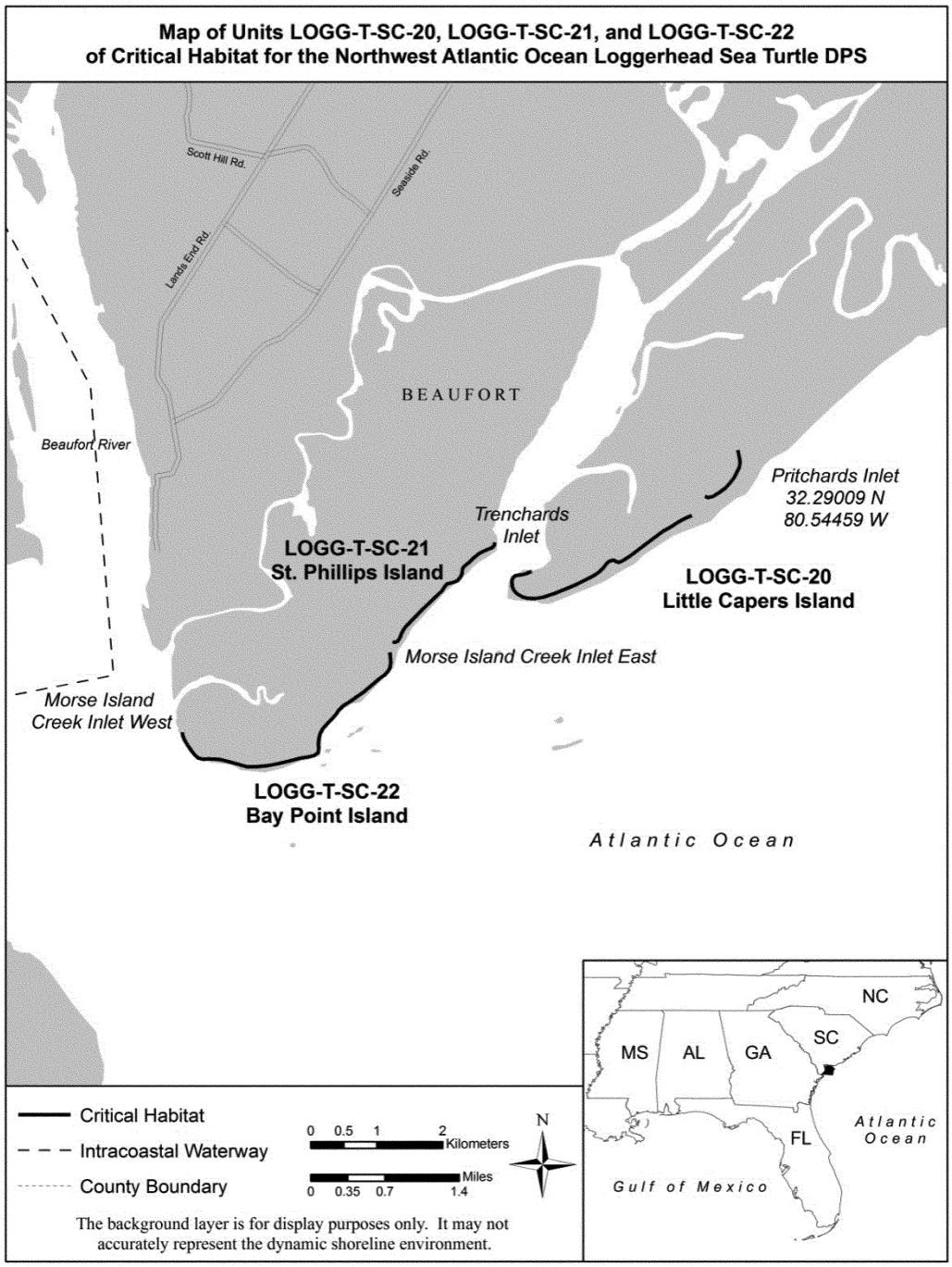
(A) LOGG–T–SC–20—Little Capers Island: This unit consists of 4.6 km (2.9 mi) of island shoreline along the Atlantic Ocean and extends from ''Pritchards Inlet'' (there is some uncertainty about the true name of this water feature) located at 32.29009 N, 80.54459 W to Trenchards Inlet.

(B) LOGG–T–SC–21—St. Phillips Island: This unit consists of 2.3 km (1.4 mi) of island shoreline along the Atlantic Ocean and Trenchards Inlet and extends from Trenchards Inlet to Morse Island Creek Inlet East.

(C) LOGG–T–SC–22—Bay Point Island: This unit consists of 4.3 km (2.7 mi) of island shoreline along the Atlantic Ocean and Port Royal Sound and extends from Morse Island Creek Inlet East along the Atlantic Ocean shoreline to Morse Island Creek Inlet

West along the Port Royal Sound shoreline.

(iii) Map of Units LOGG–T–SC–20, LOGG–T–SC–21, and LOGG–T–SC–22 follows:



(15)(i) Units:

(A) LOGG–T–GA–01—Little Tybee Island, Chatham County, Georgia.

(B) LOGG–T–GA–02—Wassaw Island, Chatham County, Georgia.

(C) LOGG–T–GA–03—Ossabaw Island, Chatham County, Georgia.

(D) LOGG–T–GA–04—St. Catherines Island, Liberty County, Georgia.

(ii) General descriptions of units:

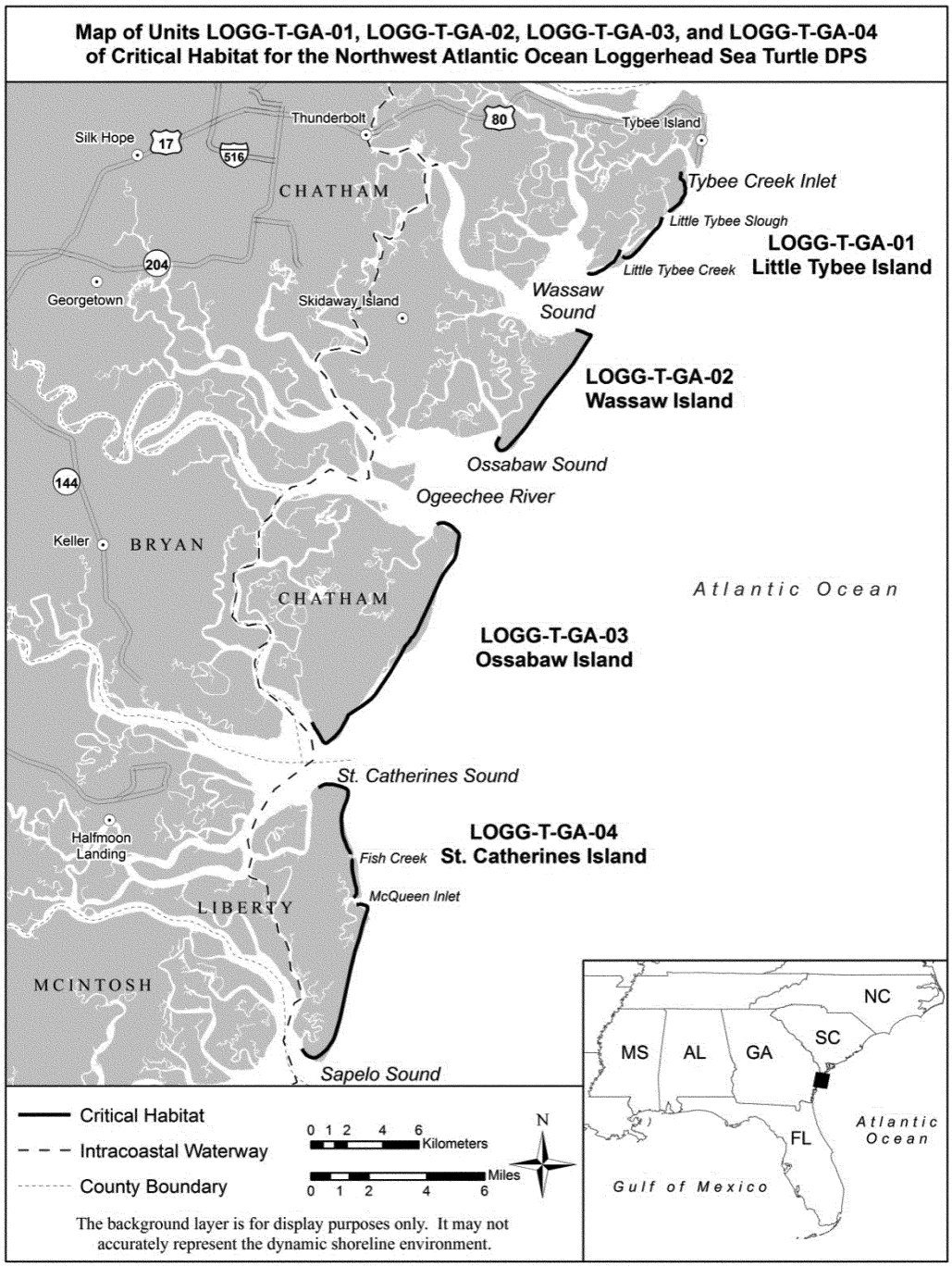
(A) LOGG–T–GA–01—Little Tybee Island: This unit consists of 8.6 km (5.3 mi) of island shoreline along the Atlantic Ocean and extends from Tybee Creek Inlet to Wassaw Sound.

(B) LOGG–T–GA–02—Wassaw Island: This unit consists of 10.1 km (6.3 mi) of island shoreline along the Atlantic Ocean and extends from Wassaw Sound to Ossabaw Sound.

(C) LOGG–T–GA–03—Ossabaw Island: This unit consists of 17.1 km (10.6 mi) of island shoreline along the Atlantic Ocean and extends from Ogeechee River to St. Catherines Sound.

(D) LOGG–T–GA–04—St. Catherines Island: This unit consists of 18.4 km (11.5 mi) of island shoreline along the Atlantic Ocean and extends from St. Catherines Sound to Sapelo Sound.

(iii) Map of Units LOGG–T–GA–01, LOGG–T–GA–02, LOGG–T–GA–03, and LOGG–T–GA–04 follows:



(16)(i) Units:

(A) LOGG–T–GA–05—Blackbeard Island, McIntosh County, Georgia.

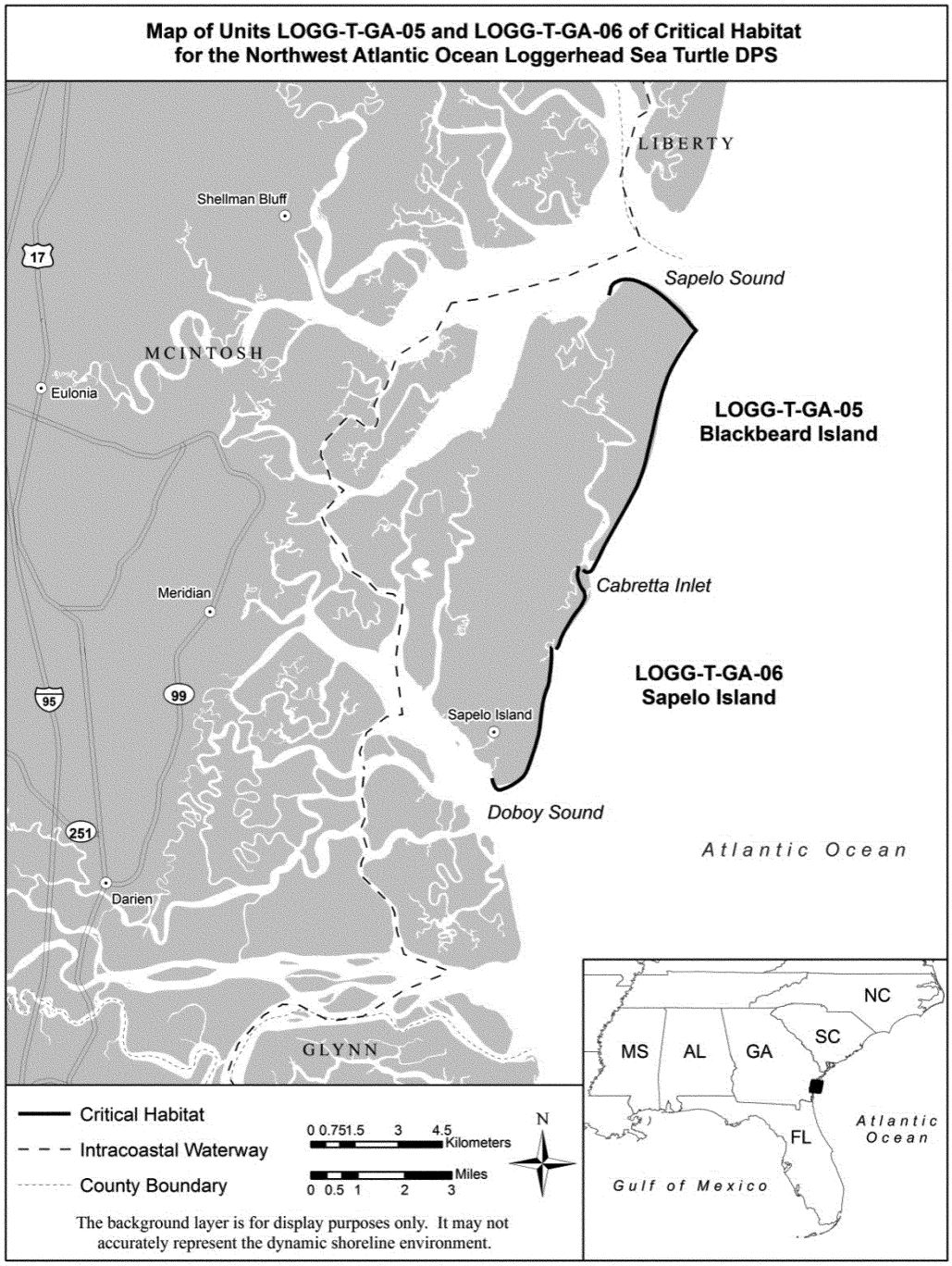
(B) LOGG–T–GA–06—Sapelo Island, McIntosh County, Georgia.

(ii) General descriptions of units:

(A) LOGG–T–GA–05—Blackbeard Island: This unit consists of 13.5 km (8.4 mi) of island shoreline along the Atlantic Ocean and extends from Sapelo Sound to Cabretta Inlet.

(B) LOGG–T–GA–06—Sapelo Island: This unit consists of 9.3 km (5.8 mi) of island shoreline along the Atlantic Ocean and extends from Cabretta Inlet to Doboy Sound.

(iii) Map of Units LOGG–T–GA–05 and LOGG–T–GA–06 follows:



(17)(i) Units:

(A) LOGG–T–GA–07—Little Cumberland Island, Camden County, Georgia.

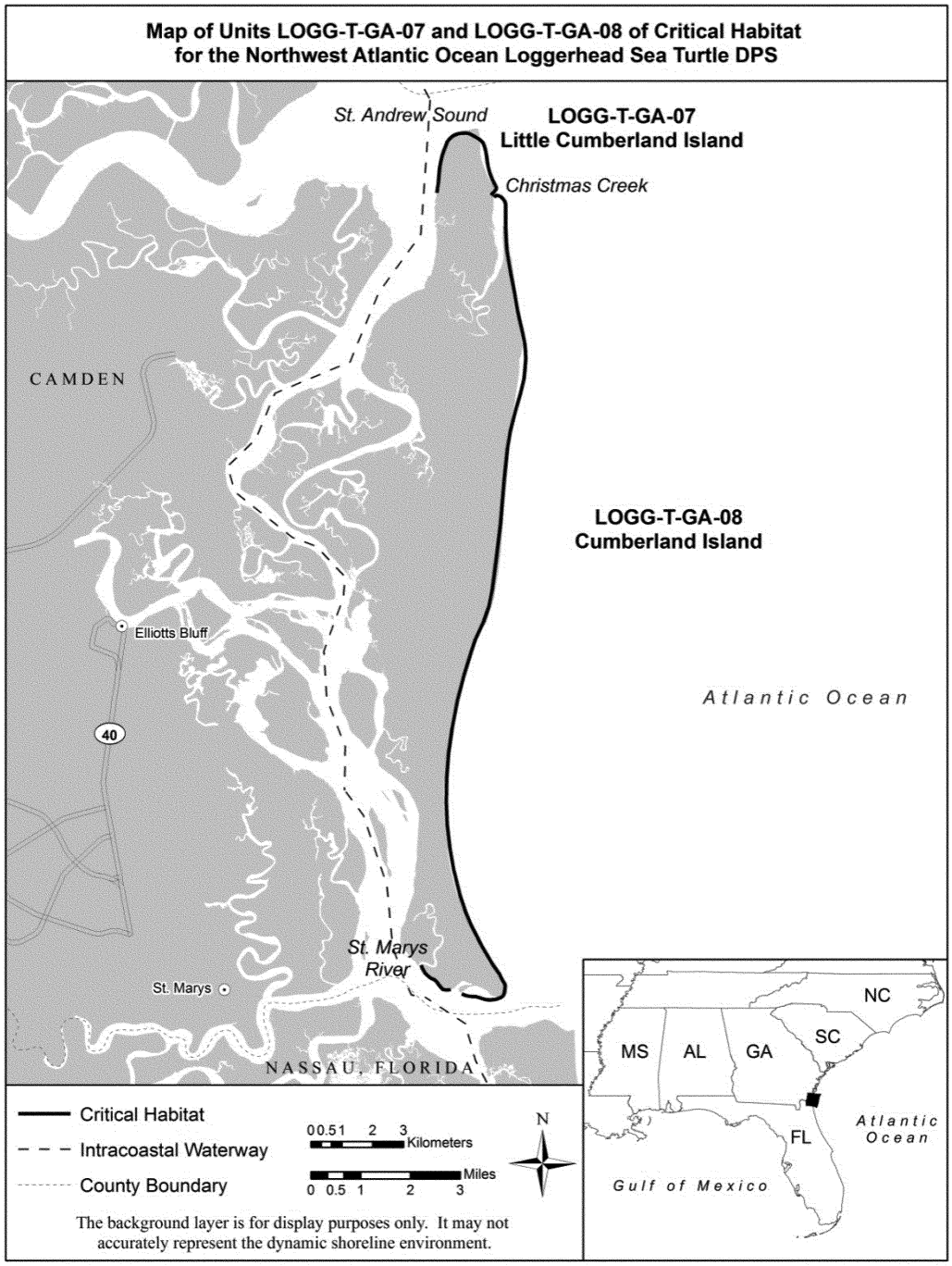
(B) LOGG–T–GA–08—Cumberland Island, Camden County, Georgia.

(ii) General descriptions of units:

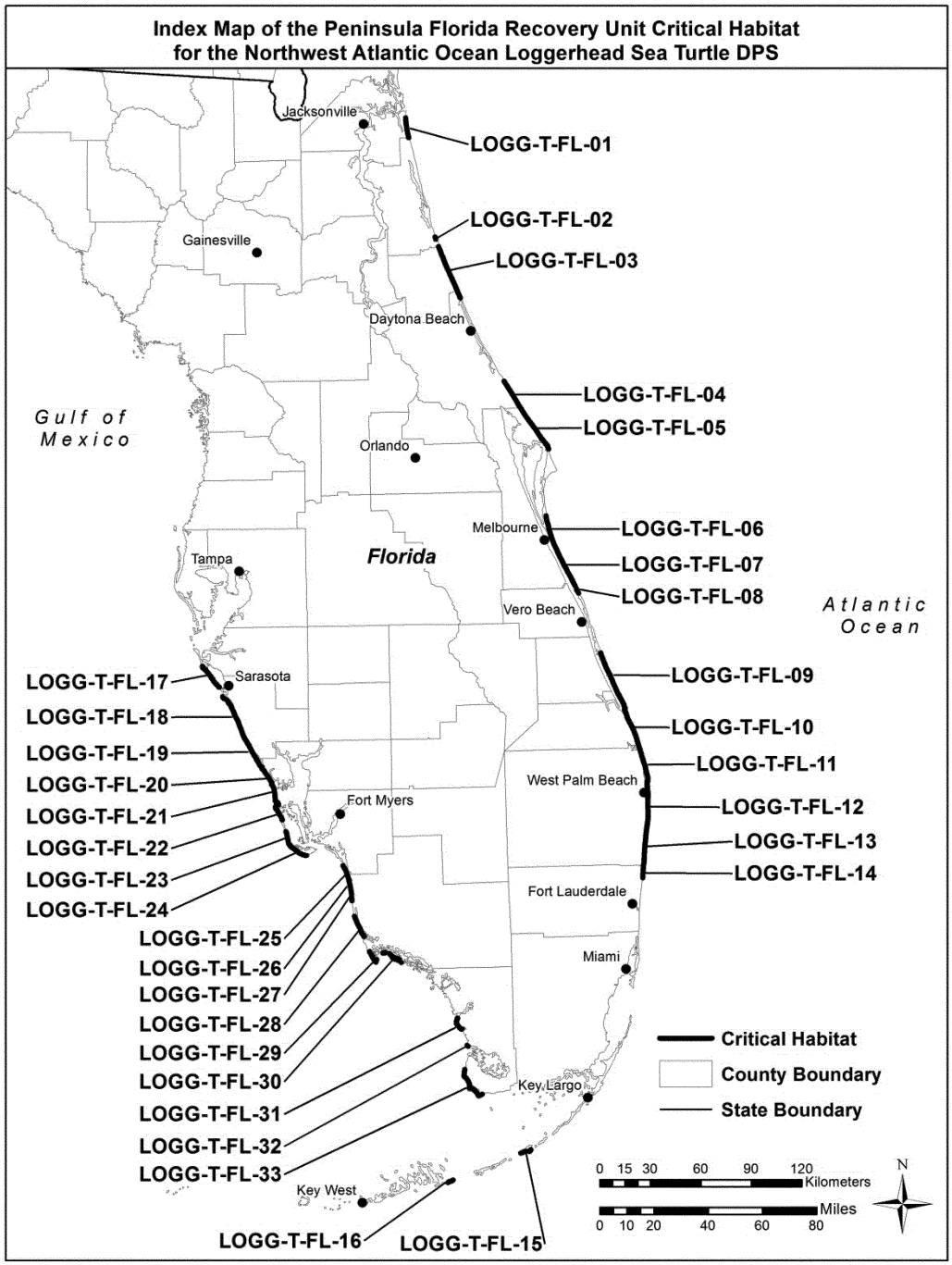
(A) LOGG–T–GA–07—Little Cumberland Island: This unit consists of 4.9 km (3.0 mi) of island shoreline along the Atlantic Ocean and extends from St. Andrew Sound to Christmas Creek.

(B) LOGG–T–GA–08—Cumberland Island: This unit consists of 29.7 km (18.4 mi) of island shoreline along the Atlantic Ocean and extends from Christmas Creek to St. Marys River.

(iii) Map of Units LOGG–T–GA–07 and LOGG–T–GA–08 follows:



(18) *Note:* Index map of critical habitat units in the Peninsular Florida Recovery Unit:



(19)(i) Units:

(A) LOGG–T–FL–01—South Duval County Beaches-Duval and St. Johns County line, Florida.

(B) LOGG–T–FL–02—Fort Matanzas National Monument, St. Johns County, Florida.

(C) LOGG–T–FL–03—River to Sea Preserve at Marineland-North Peninsula State Park, Flagler and Volusia Counties, Florida.

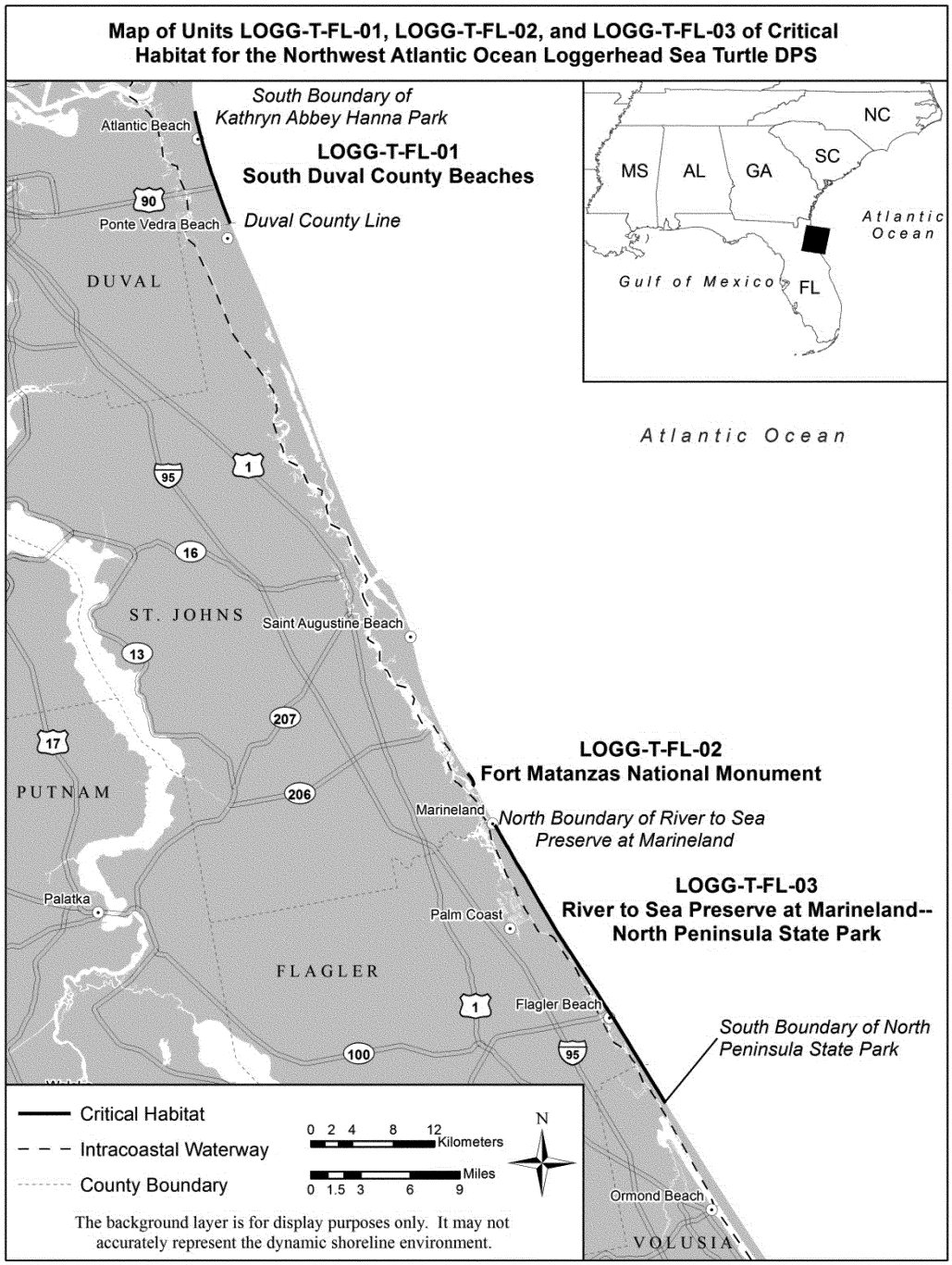
(ii) General descriptions of units:

(A) LOGG–T–FL–01—South Duval County Beaches-Duval and St. Johns County line: This unit consists of 11.5 km (7.1 mi) of island shoreline along the Atlantic Ocean and extends from the south boundary of Kathryn Abbey Hanna Park in Duval County to the boundary of the St. Johns County line.

(B) LOGG–T–FL–02—Fort Matanzas National Monument: This unit consists of 1.4 km (0.9 mi) of island shoreline along the Atlantic Ocean and includes the shoreline along Fort Matanzas National Monument in St. Johns County.

(C) LOGG–T–FL–03—River to Sea Preserve at Marineland-North Peninsula State Park: This unit consists of 31.8 km (19.8 mi) of island shoreline along the Atlantic Ocean and extends from the north boundary of the River to Sea Preserve at Marineland to the south boundary of North Peninsula State Park.

(iii) Map of Units LOGG–T–FL–01, LOGG–T–FL–02, and LOGG–T–FL–03 follows:



(20)(i) Units:

(A) LOGG–T–FL–04—Canaveral National Seashore North, Volusia County, Florida.

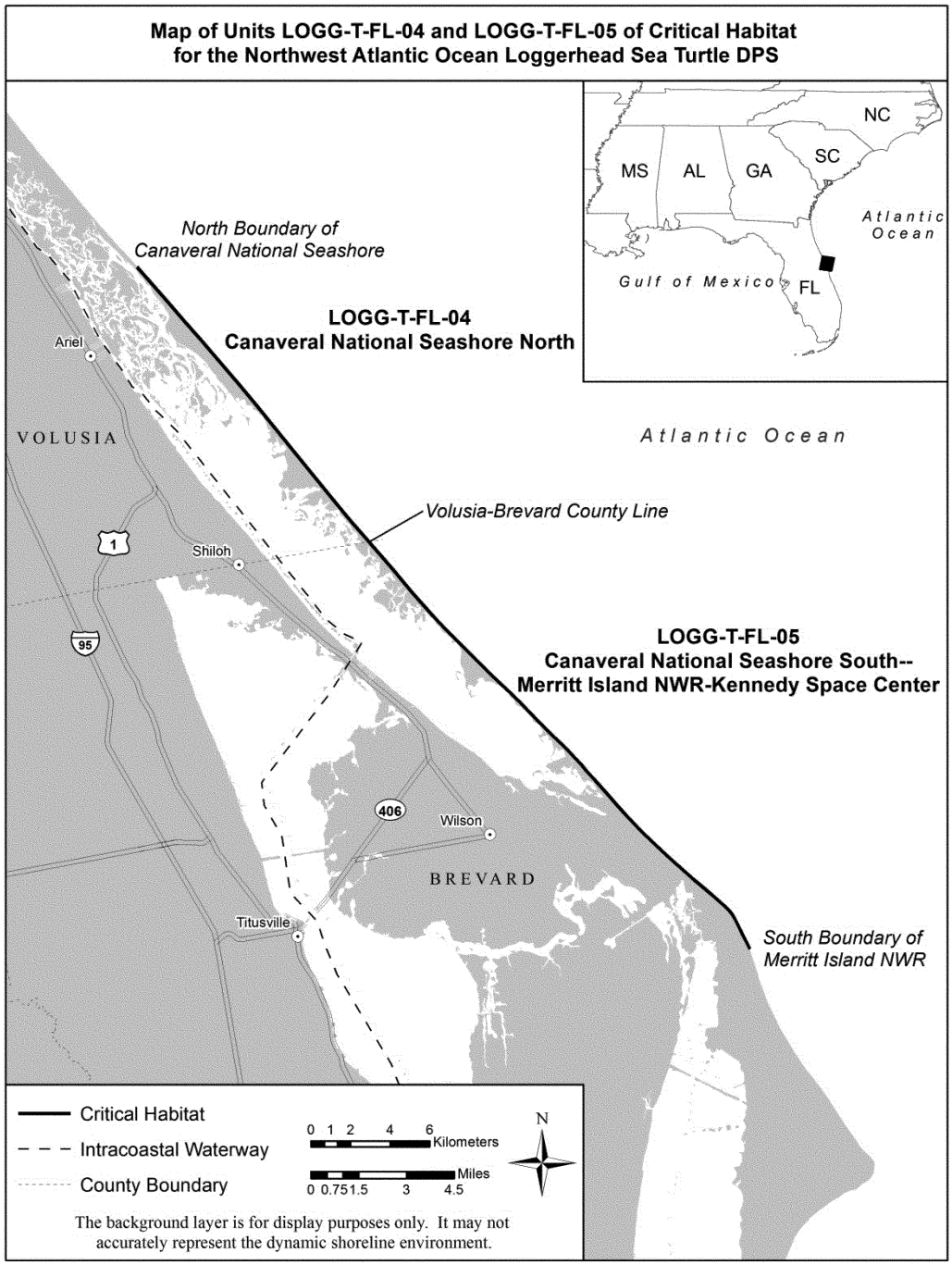
(B) LOGG–T–FL–05—Canaveral National Seashore South-Merritt Island NWR–Kennedy Space Center, Brevard County, Florida.

(ii) General descriptions of units:

(A) LOGG–T–FL–04—Canaveral National Seashore North: This unit consists of 18.2 km (11.3 mi) of island shoreline along the Atlantic Ocean and extends from the north boundary of Canaveral National Seashore to the Volusia-Brevard County line.

(B) LOGG–T–FL–05—Canaveral National Seashore South-Merritt Island NWR–Kennedy Space Center: This unit consists of 28.4 km (17.6 mi) of island shoreline along the Atlantic Ocean and extends from the Volusia-Brevard County line to the south boundary of Merritt Island NWR-Kennedy Space Center (Merritt Island NWR was established in 1963 as an overlay of the National Aeronautics and Space Administration's (NASA) John F. Kennedy Space Center).

(iii) Map of Units LOGG–T–FL–04 and LOGG–T–FL–05 follows:



(21)(i) Units:

(A) LOGG–T–FL–06—Central Brevard Beaches, Brevard County, Florida.

(B) LOGG–T–FL–07—South Brevard Beaches, Brevard County, Florida.

(C) LOGG–T–FL–08—Sebastian Inlet State Park-Archie Carr NWR South, Indian River County, Florida.

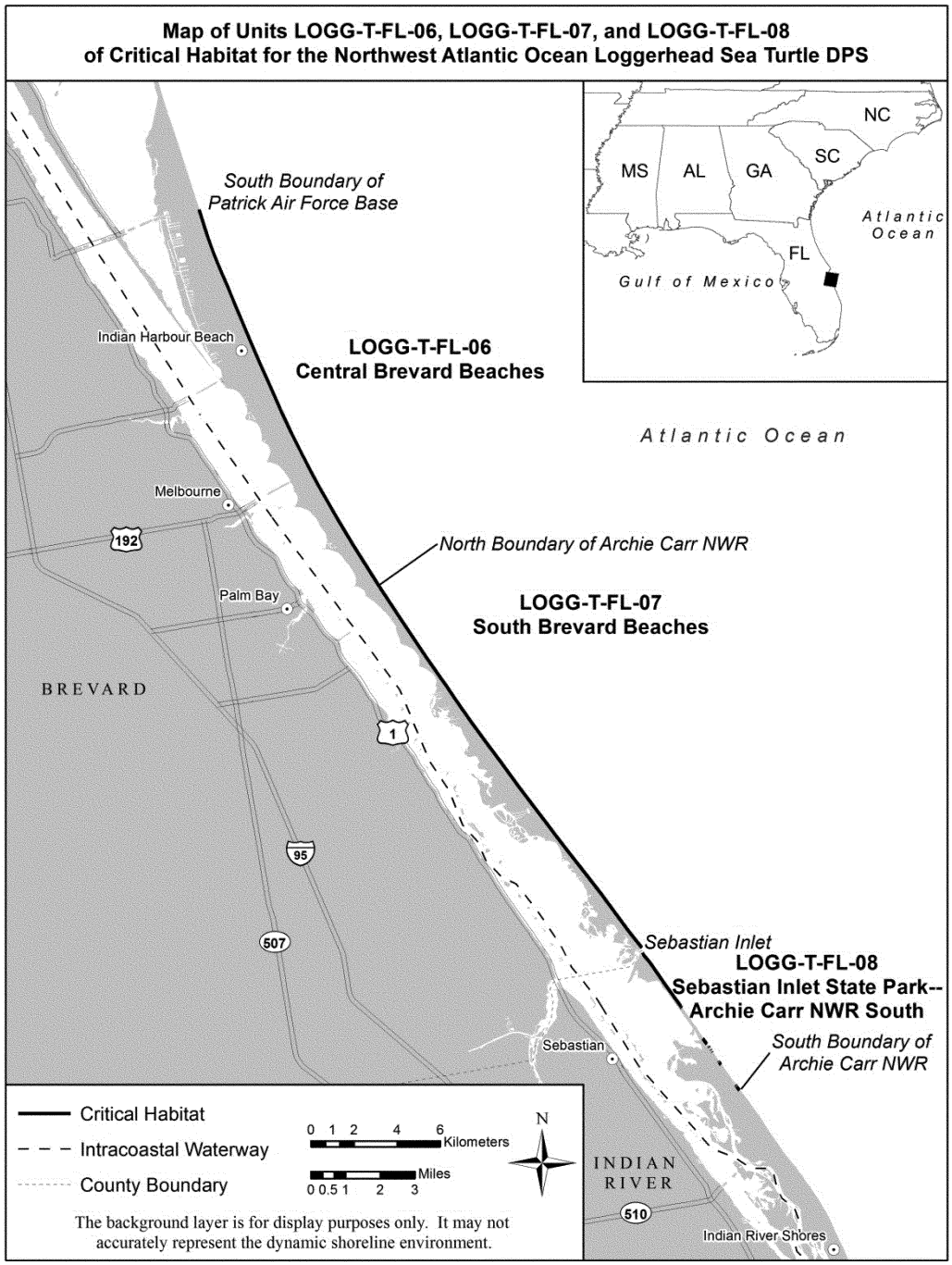
(ii) General descriptions of units:

(A) LOGG–T–FL–06—Central Brevard Beaches: This unit consists of 19.5 km (12.1 mi) of island shoreline along the Atlantic Ocean and extends from the south boundary of Patrick Air Force Base to the north boundary of Archie Carr National Wildlife Refuge (NWR).

(B) LOGG–T–FL–07—South Brevard Beaches: This unit consists of 20.8 km (12.9 mi) of island shoreline along the Atlantic Ocean and extends from the north boundary of Archie Carr NWR to Sebastian Inlet.

(C) LOGG–T–FL–08—Sebastian Inlet State Park-Archie Carr NWR South: This unit consists of 4.1 km (2.6 mi) of island shoreline along the Atlantic Ocean and extends from Sebastian Inlet State Park and parcels within the Archie Carr NWR.

(iii) Map of Units LOGG–T–FL–06, LOGG–T–FL–07, and LOGG–T–FL–08 follows:



(22)(i) Units:

(A) LOGG–T–FL–09—Fort Pierce Inlet–St. Lucie Inlet, St. Lucie and Martin Counties, Florida.

(B) LOGG–T–FL–10—St. Lucie Inlet-Jupiter Inlet, Martin and Palm Beach Counties, Florida.

(C) LOGG–T–FL–11—Jupiter Inlet-Lake Worth Inlet, Palm Beach County, Florida.

(D) LOGG–T–FL–12—Lake Worth Inlet-Boynton Inlet, Palm Beach County, Florida.

(E) LOGG–T–FL–13—Boynton Inlet-Boca Raton Inlet, Palm Beach County, Florida.

(F) LOGG–T–FL–14—Boca Raton Inlet-Hillsboro Inlet, Palm Beach and Broward Counties, Florida.

(ii) General descriptions of units:

(A) LOGG–T–FL–09—Fort Pierce Inlet-St. Lucie Inlet: This unit consists of 35.2 km (21.9 mi) of island shoreline along the Atlantic Ocean and extends from Fort Pierce Inlet to St. Lucie Inlet.

(B) LOGG–T–FL–10—St. Lucie Inlet-Jupiter Inlet: This unit consists of 24.9 km (15.5 mi) of island shoreline along the Atlantic Ocean and extends from St. Lucie Inlet to Jupiter Inlet.

(C) LOGG–T–FL–11—Jupiter Inlet-Lake Worth Inlet: This unit consists of 18.8 km (11.7 mi) of island shoreline along the Atlantic Ocean and extends from Jupiter Inlet to Lake Worth Inlet.

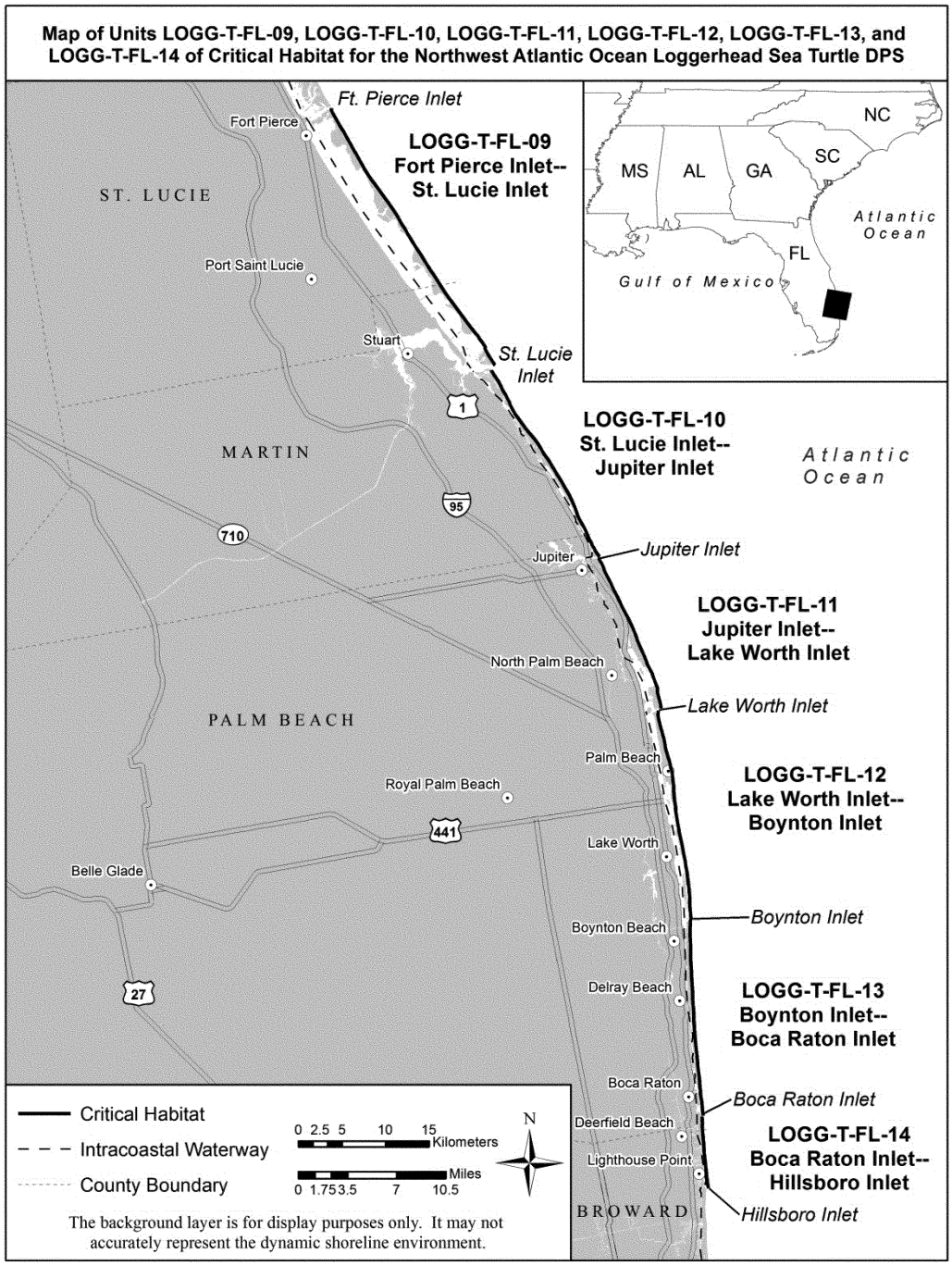
(D) LOGG–T–FL–12—Lake Worth Inlet-Boynton Inlet: This unit consists of 24.3 km (15.1 mi) of island shoreline along the Atlantic Ocean and extends from Lake Worth Inlet to Boynton Inlet.

(E) LOGG–T–FL–13—Boynton Inlet-Boca Raton Inlet: This unit consists of 22.6 km (14.1 mi) of island shoreline

along the Atlantic Ocean and extends from Boynton Inlet to Boca Raton Inlet.

(F) LOGG–T–FL–14—Boca Raton Inlet–Hillsboro Inlet: This unit consists of 8.3 km (5.2 mi) of island shoreline along the Atlantic Ocean and extends from Boca Raton Inlet to Hillsboro Inlet.

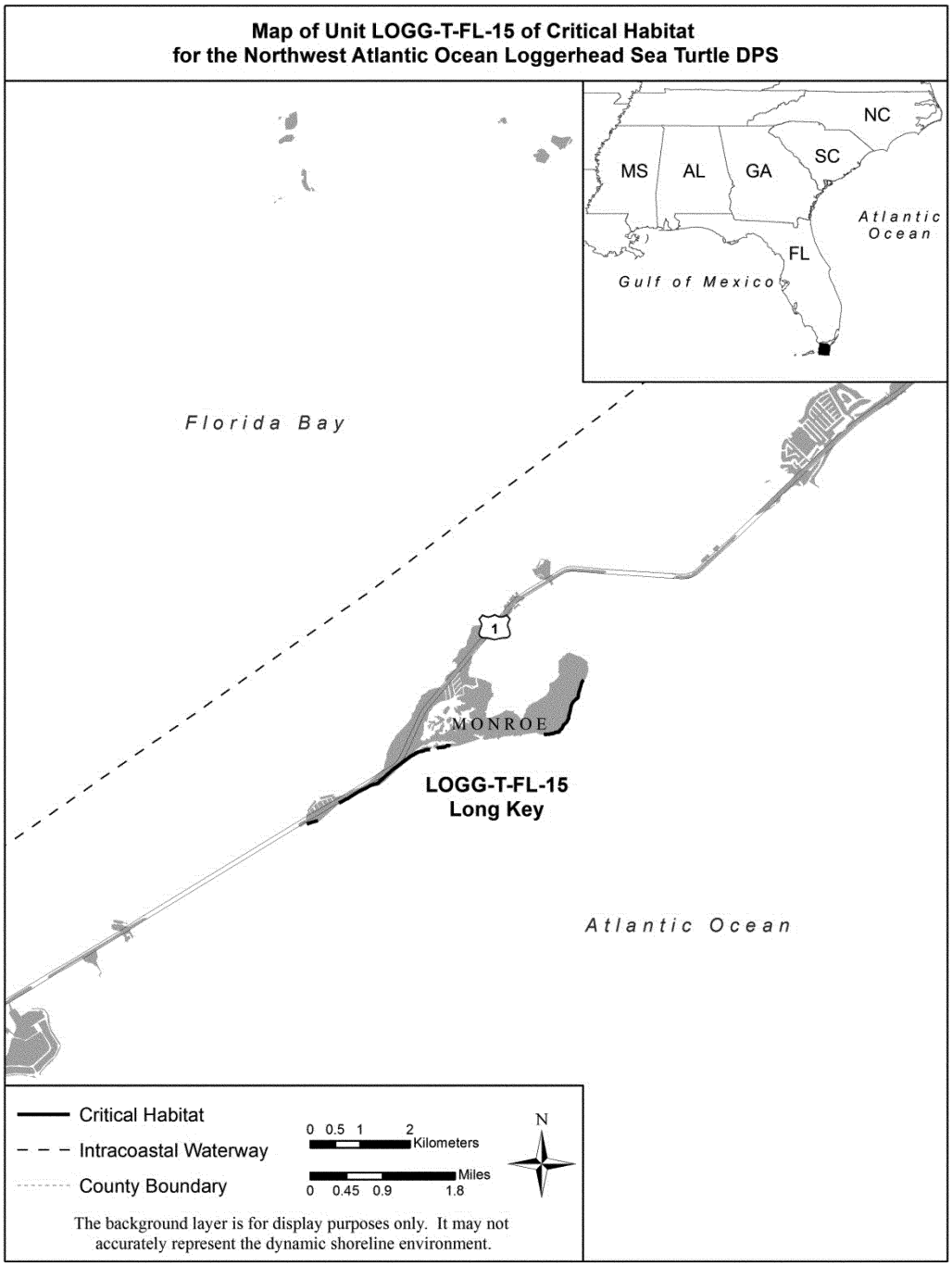
(iii) Map of Units LOGG–T–FL–09, LOGG–T–FL–10, LOGG–T–FL–11, LOGG–T–FL–12, LOGG–T–FL–13, and LOGG–T–FL–14 follows:



(23) Unit LOGG–T–FL–15—Long Key, Monroe County, Florida.

(i) *General description:* This unit consists of 4.2 km (2.6 mi) of island shoreline along the Atlantic Ocean and extends from the natural channel between Fiesta Key and Long Key to the natural channel between Long Key and Conch Key.

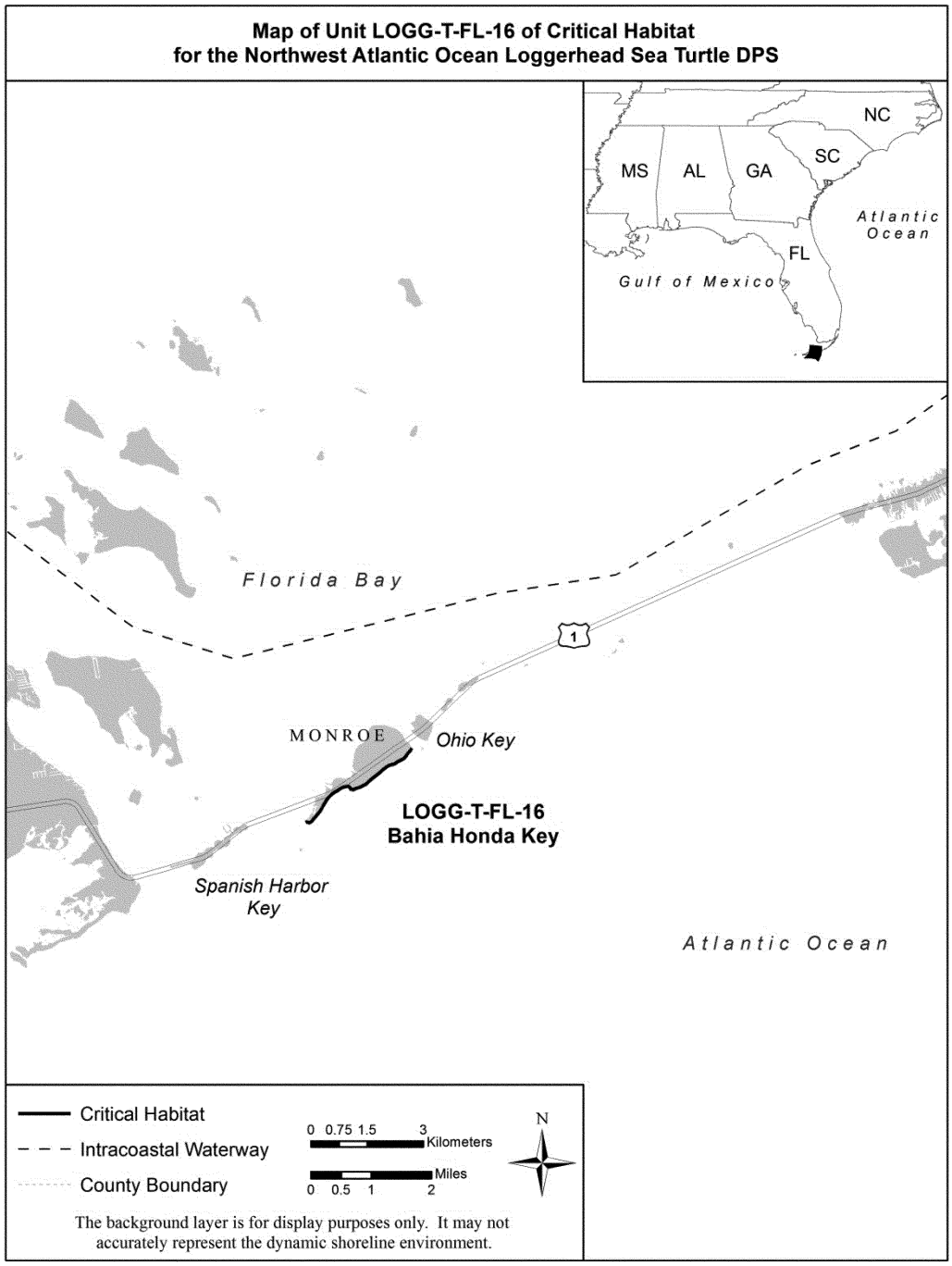
(ii) Map of Unit LOGG–T–FL–15 follows:



(24) Unit LOGG–T–FL–16—Bahia Honda Key, Monroe County, Florida.

(i) *General description:* This unit consists of 3.7 km (2.3 mi) of island shoreline along the Atlantic Ocean and extends from the natural channel between Ohio Key and Bahia Honda Key to the natural channel between Bahia Honda Key and Spanish Harbor Key.

(ii) Map of Unit LOGG–T–FL–16 follows:



(25)(i) Units:

(A) LOGG–T–FL–17—Longboat Key, Manatee and Sarasota Counties, Florida.

(B) LOGG–T–FL–18—Siesta and Casey Keys, Sarasota County, Florida.

(C) LOGG–T–FL–19—Venice Beaches and Manasota Key, Sarasota and Charlotte Counties, Florida.

(D) LOGG–T–FL–20—Knight, Don Pedro, and Little Gasparilla Islands, Charlotte County, Florida.

(ii) General descriptions of units:

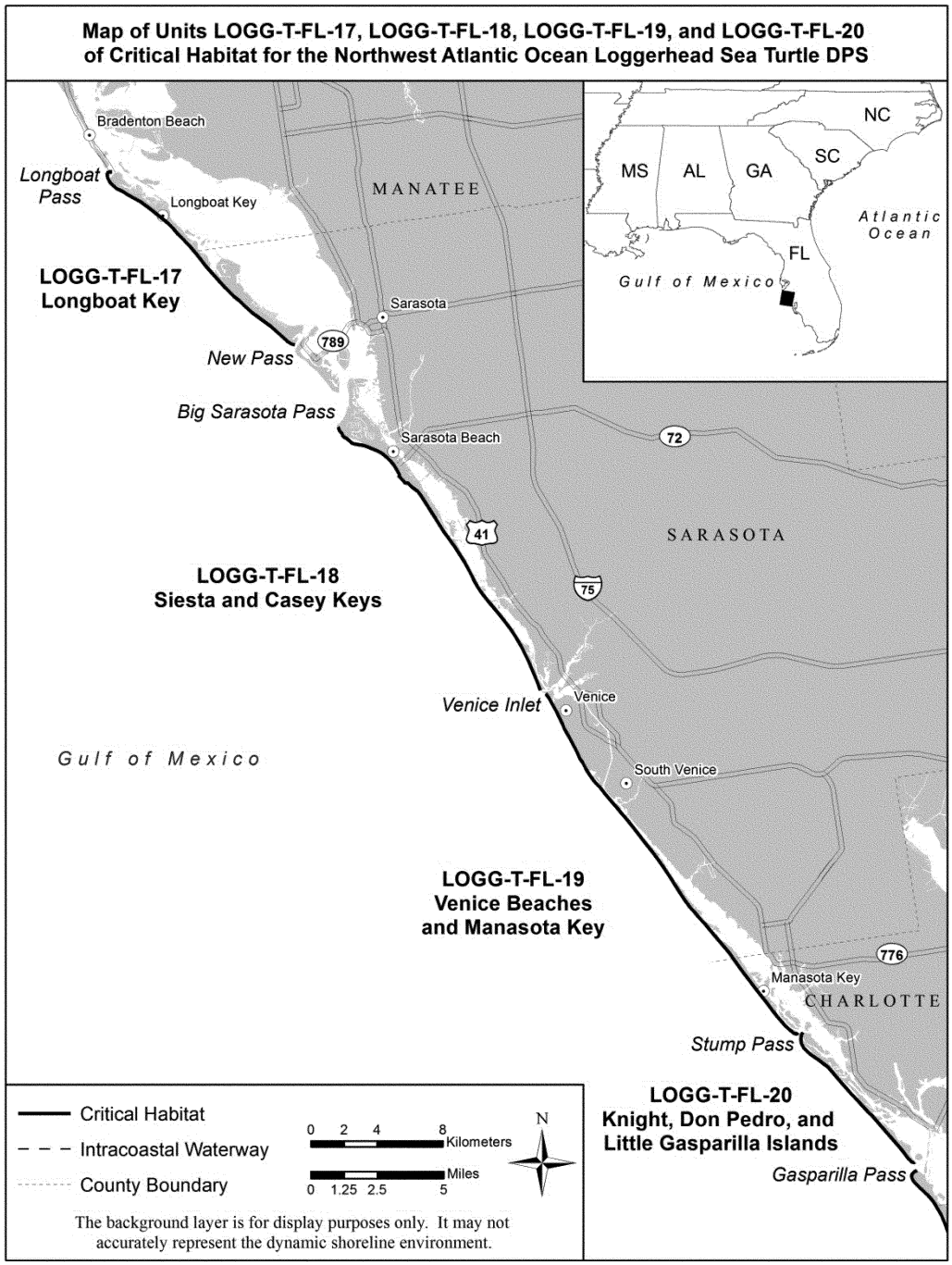
(A) LOGG–T–FL–17—Longboat Key: This unit consists of 16.0 km (9.9 mi) of island shoreline along the Gulf of Mexico and extends from Longboat Pass to New Pass.

(B) LOGG–T–FL–18—Siesta and Casey Keys: This unit consists of 20.8 km (13.0 mi) of island shoreline along the Gulf of Mexico and extends from Big Sarasota Pass to Venice Inlet.

(C) LOGG–T–FL–19—Venice Beaches and Manasota Key: This unit consists of 26.0 km (16.1 mi) of island shoreline along the Gulf of Mexico and extends from Venice Inlet to Stump Pass.

(D) LOGG–T–FL–20—Knight, Don Pedro, and Little Gasparilla Islands: This unit consists of 10.8 km (6.7 mi) of island shoreline along the Gulf of Mexico and extends from Stump Pass to Gasparilla Pass.

(iii) Map of Units LOGG–T–FL–17, LOGG–T–FL–18, LOGG–T–FL–19, and LOGG–T–FL–20 follows:



(26)(i) Units:

(A) LOGG–T–FL–21—Gasparilla Island, Charlotte and Lee Counties, Florida.

(B) LOGG–T–FL–22—Cayo Costa, Lee County, Florida.

(C) LOGG–T–FL–23—Captiva Island, Lee County, Florida.

(D) LOGG–T–FL–24—Sanibel Island West, Lee County, Florida.

(ii) General descriptions of units:

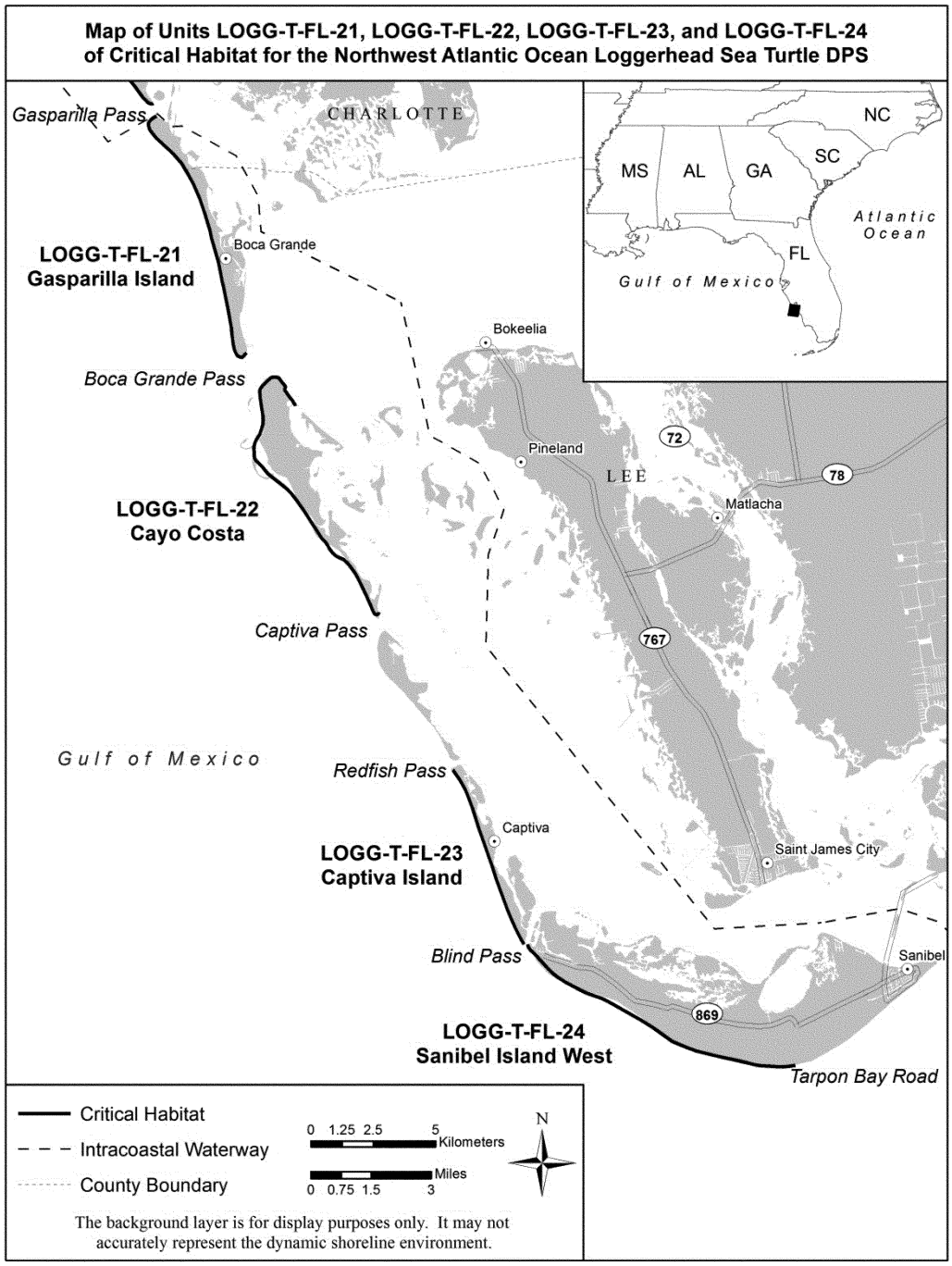
(A) LOGG–T–FL–21—Gasparilla Island: This unit consists of 11.2 km (6.9 mi) of island shoreline along the Gulf of Mexico and extends from Gasparilla Pass to Boca Grande Pass.

(B) LOGG–T–FL–22—Cayo Costa: This unit consists of 13.5 km (8.4 mi) of island shoreline along the Gulf of Mexico and extends from Boca Grande Pass to Captiva Pass.

(C) LOGG–T–FL–23—Captiva Island: This unit consists of 7.6 km (4.7 mi) of island shoreline along the Gulf of Mexico and extends from Redfish Pass to Blind Pass.

(D) LOGG–T–FL–24—Sanibel Island West: This unit consists of 12.2 km (7.6 mi) of island shoreline along the Gulf of Mexico and extends from Blind Pass to Tarpon Bay Road.

(iii) Map of Units LOGG–T–FL–21, LOGG–T–FL–22, LOGG–T–FL–23, and LOGG–T–FL–24 follows:



(27)(i) Units:

(A) LOGG–T–FL–25—Little Hickory Island, Lee and Collier Counties, Florida.

(B) LOGG–T–FL–26—Wiggins Pass-Clam Pass, Collier County, Florida.

(C) LOGG–T–FL–27—Clam Pass-Doctors Pass, Collier County, Florida.

(D) LOGG–T–FL–28—Keewaydin Island and Sea Oat Island, Collier County, Florida.

(ii) General descriptions of units:

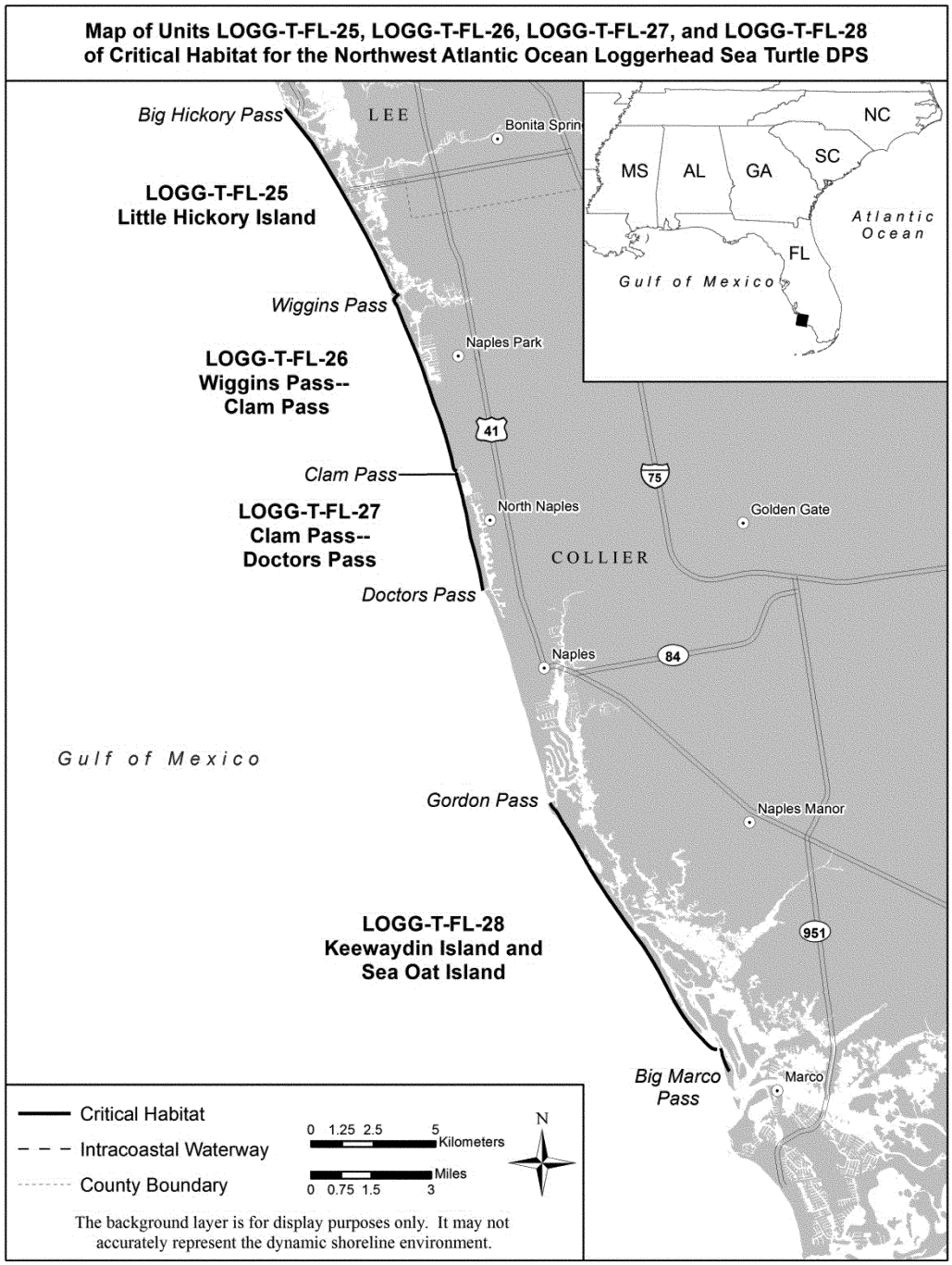
(A) LOGG–T–FL–25—Little Hickory Island: This unit consists of 8.7 km (5.4 mi) of island shoreline along the Gulf of Mexico and extends from Big Hickory Pass to Wiggins Pass.

(B) LOGG–T–FL–26—Wiggins Pass-Clam Pass: This unit consists of 7.7 km (4.8 mi) of mainland shoreline along the Gulf of Mexico and extends from Wiggins Pass to Clam Pass.

(C) LOGG–T–FL–27—Clam Pass-Doctors Pass: This unit consists of 4.9 km (3.0 mi) of island shoreline along the Gulf of Mexico and extends from Clam Pass to Doctors Pass.

(D) LOGG–T–FL–28—Keewaydin Island and Sea Oat Island: This unit consists of 13.1 km (8.1 mi) of island shoreline along the Gulf of Mexico and extends from Gordon Pass to Big Marco Pass.

(iii) Map of Units LOGG–T–FL–25, LOGG–T–FL–26, LOGG–T–FL–27, and LOGG–T–FL–28 follows:



(28)(i) Units:

(A) LOGG–T–FL–29—Cape Romano, Collier County, Florida.

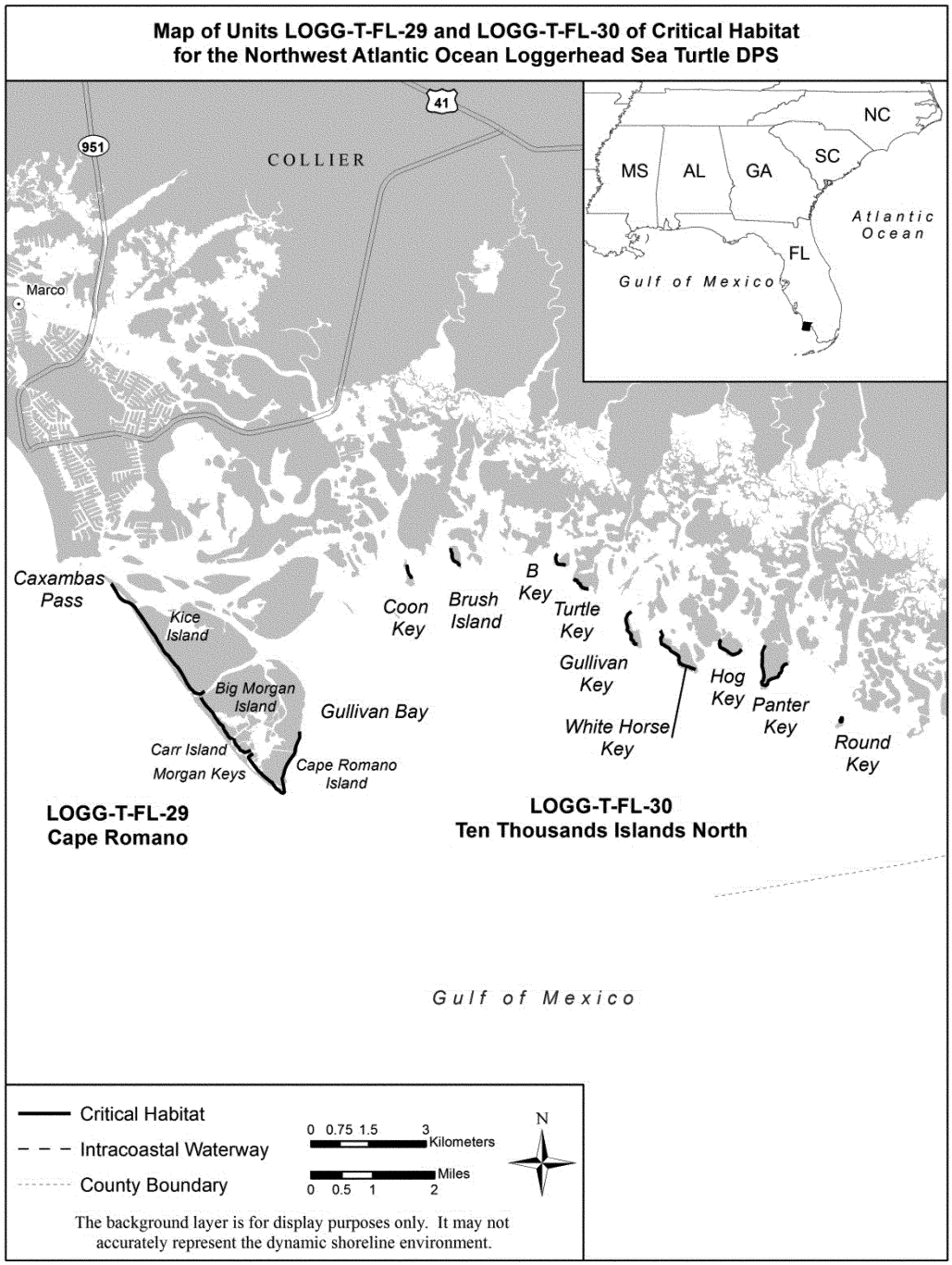
(B) LOGG–T–FL–30—Ten Thousand Islands North, Collier County, Florida.

(ii) General descriptions of units:

(A) LOGG–T–FL–29—Cape Romano: This unit consists of 9.2 km (5.7 mi) of island shoreline along the Gulf of Mexico and Gullivan Bay and extends from Caxambas Pass to Gullivan Bay.

(B) LOGG–T–FL–30—Ten Thousand Islands North: This unit consists of 7.8 km (4.9 mi) of island shoreline along the Gulf of Mexico and within Gullivan Bay.

(iii) Map of Units LOGG–T–FL–29 and LOGG–T–FL–30 follows:



(29)(i) Units:

(A) LOGG–T–FL–31—Highland Beach, Monroe County, Florida.

(B) LOGG–T–FL–32—Graveyard Creek-Shark Point, Monroe County, Florida.

(C) LOGG–T–FL–33—Cape Sable, Monroe County, Florida.

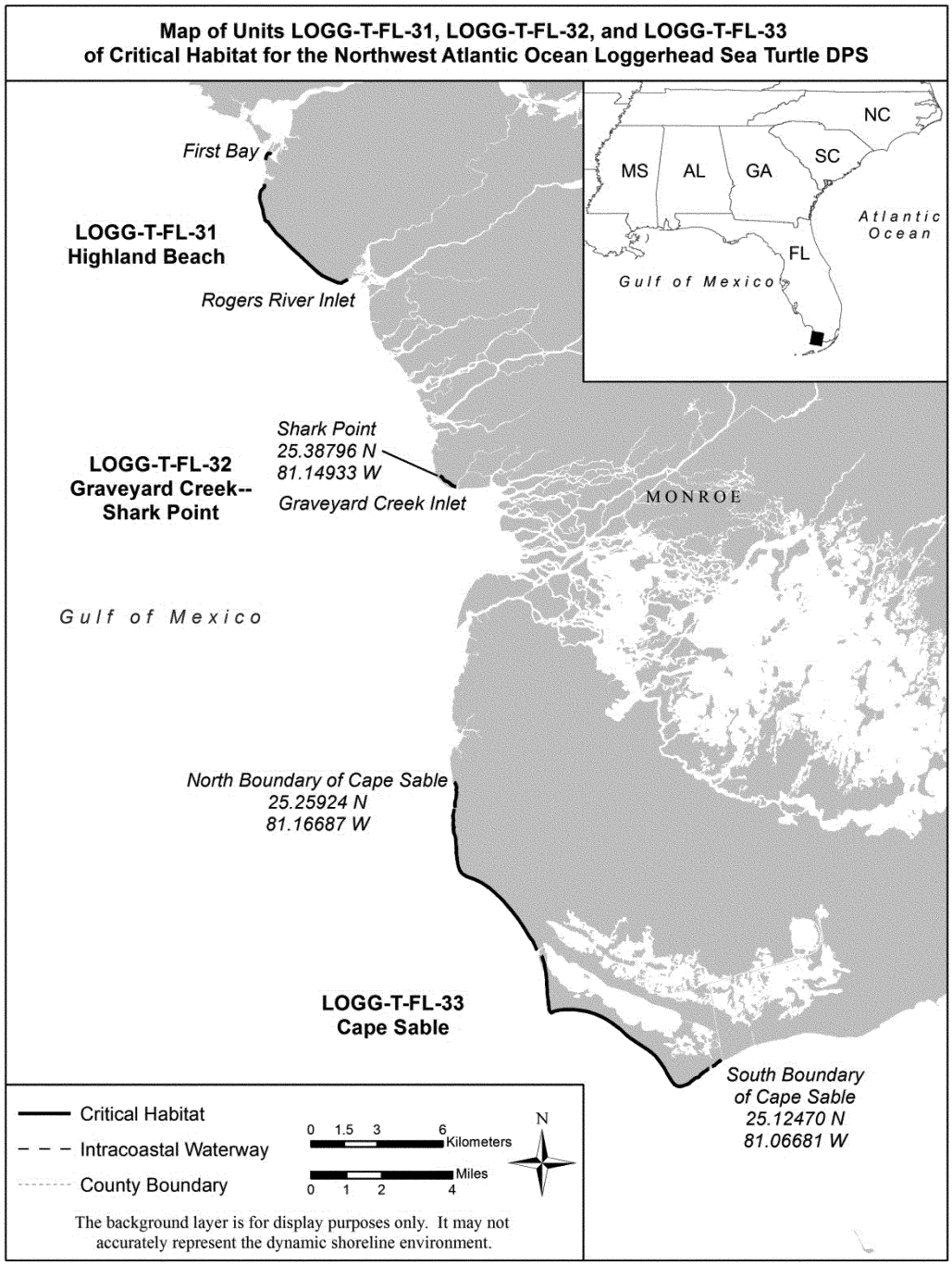
(ii) General descriptions of units:

(A) LOGG–T–FL–31—Highland Beach: This unit consists of 7.2 km (4.5 mi) of island (Key McLaughlin) shoreline along the Gulf of Mexico and extends from First Bay to Rogers River Inlet.

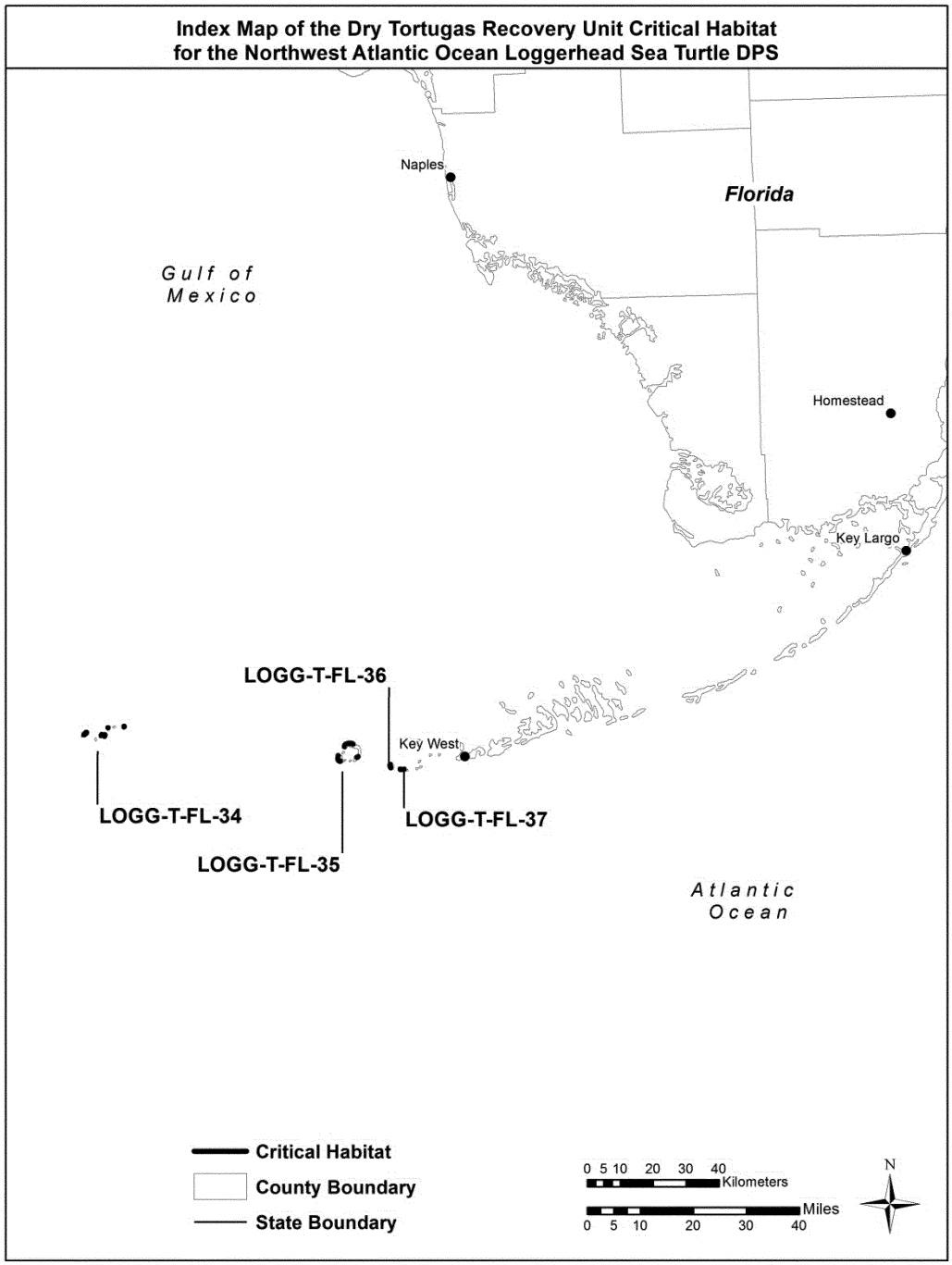
(B) LOGG–T–FL–32—Graveyard Creek-Shark Point: This unit consists of 0.9 km (0.6 mi) of mainland shoreline along the Gulf of Mexico and extends from Shark Point (25.38796 N, 81.14933 W) to Graveyard Creek Inlet.

(C) LOGG–T–FL–33—Cape Sable: This unit consists of 21.3 km (13.2 mi) of mainland shoreline along the Gulf of Mexico and extends from the north boundary of Cape Sable at 25.25924 N, 81.16687 W to the south boundary of Cape Sable at 25.12470 N, 81.06681 W.

(iii) Map of Units LOGG–T–FL–31, LOGG–T–FL–32, and LOGG–T–FL–33 follows:



(30) *Note:* Index map of critical habitat units in the Dry Tortugas Recovery Unit:



(31)(i) Units:

(A) LOGG–T–FL–34—Dry Tortugas, Monroe County, Florida.

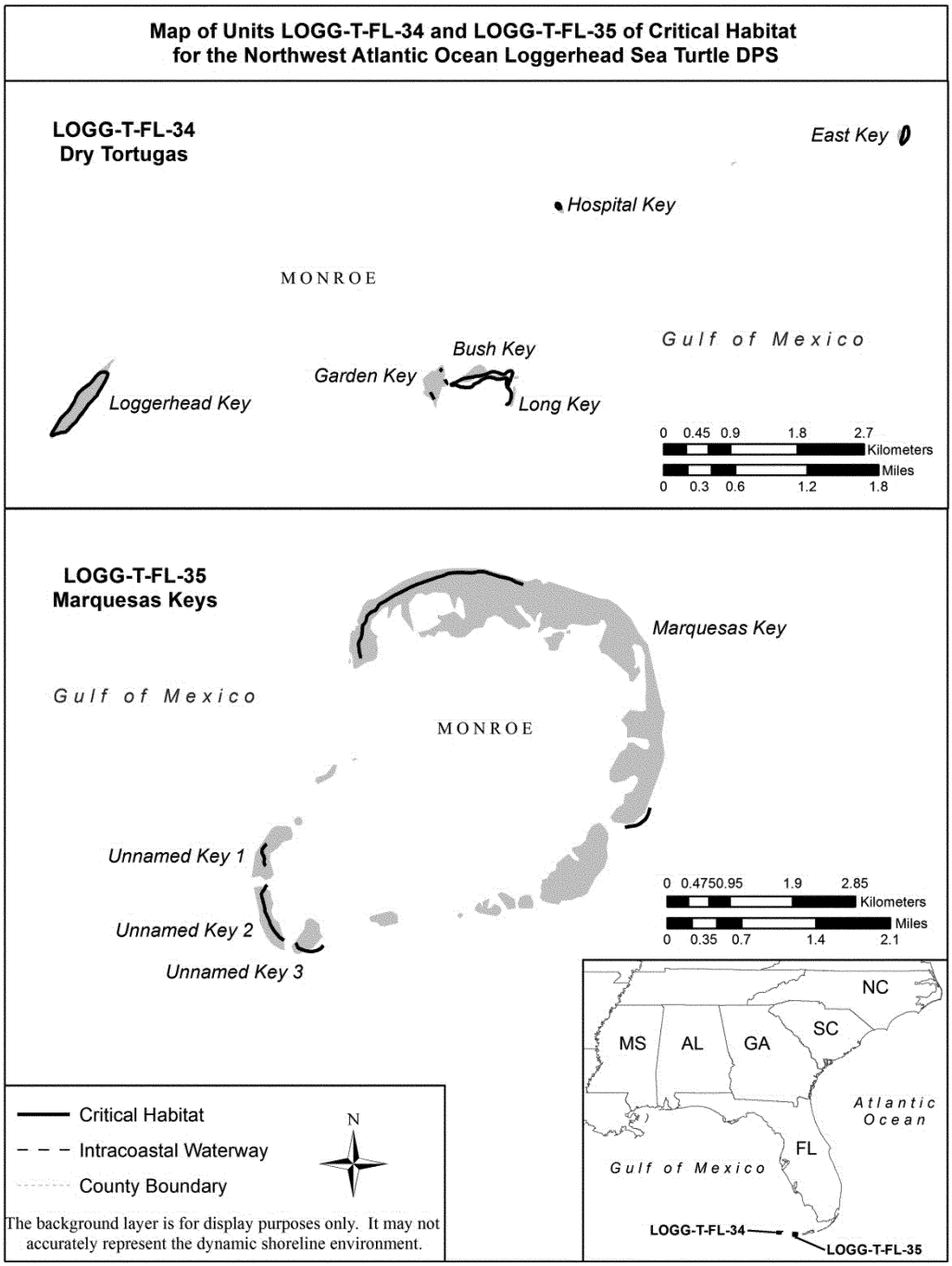
(B) LOGG–T–FL–35—Marquesas Keys, Monroe County, Florida.

(ii) General descriptions of units:

(A) LOGG–T–FL–34—Dry Tortugas: This unit consists of 5.7 km (3.6 mi) of shoreline along the Gulf of Mexico and consists of Loggerhead Key, Garden Key, Bush Key, Long Key, Hospital Key, and East Key located in the Dry Tortugas about 108 km (67 mi) west of Key West.

(B) LOGG–T–FL–35—Marquesas Keys: This unit consists of 5.6 km (3.5 mi) of shoreline along the Gulf of Mexico and consists of Marquesas Key, Unnamed Key 1, Unnamed Key 2, and Unnamed Key 3 located about 29.3 km (18.2 mi) west of Key West.

(iii) Map of Units LOGG–T–FL–34 and LOGG–T–FL–35 follows:



(32)(i) Units:

(A) LOGG–T–FL–36—Boca Grande Key, Monroe County, Florida.

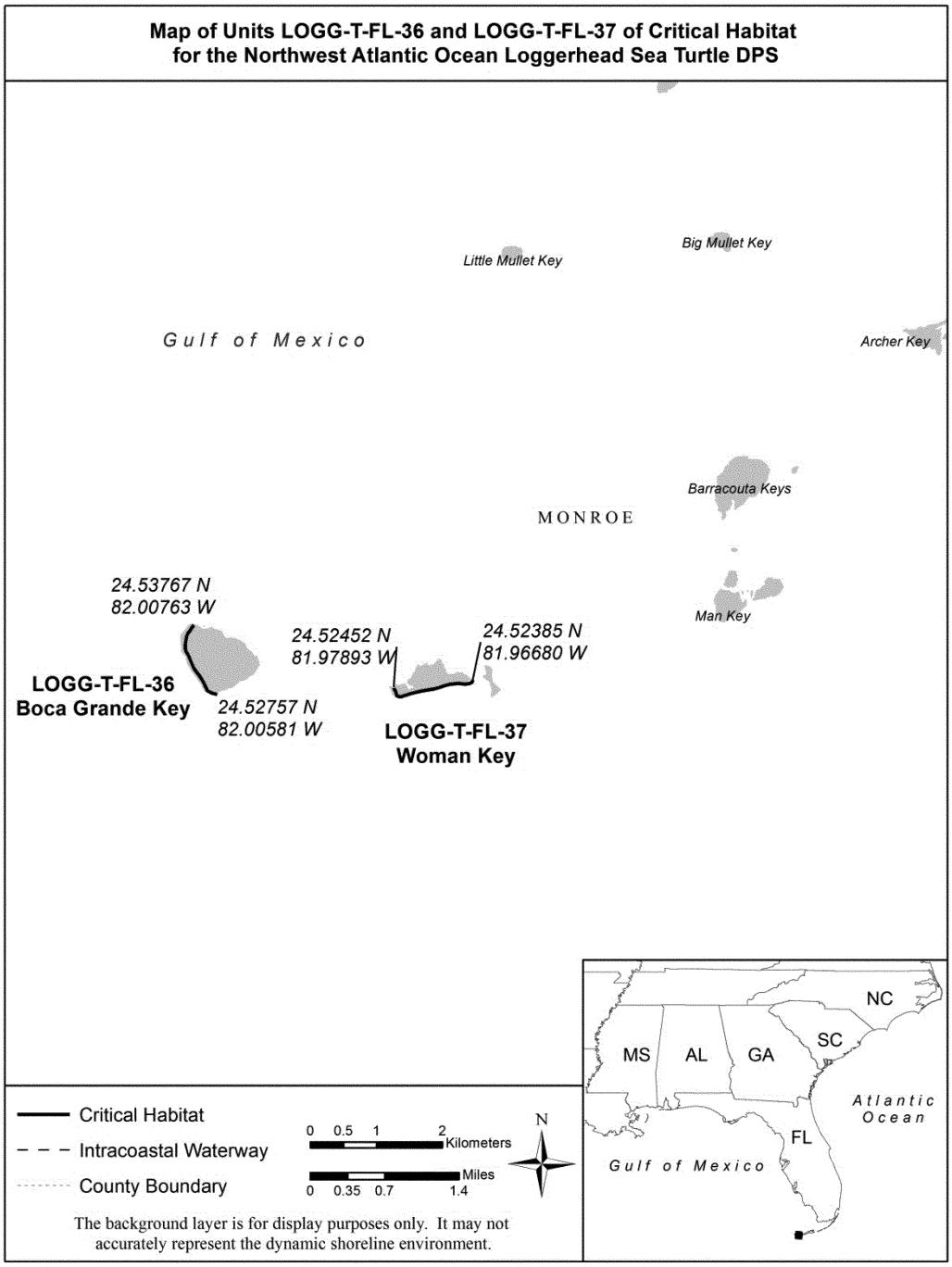
(B) LOGG–T–FL–37—Woman Key, Monroe County, Florida.

(ii) General descriptions of units:

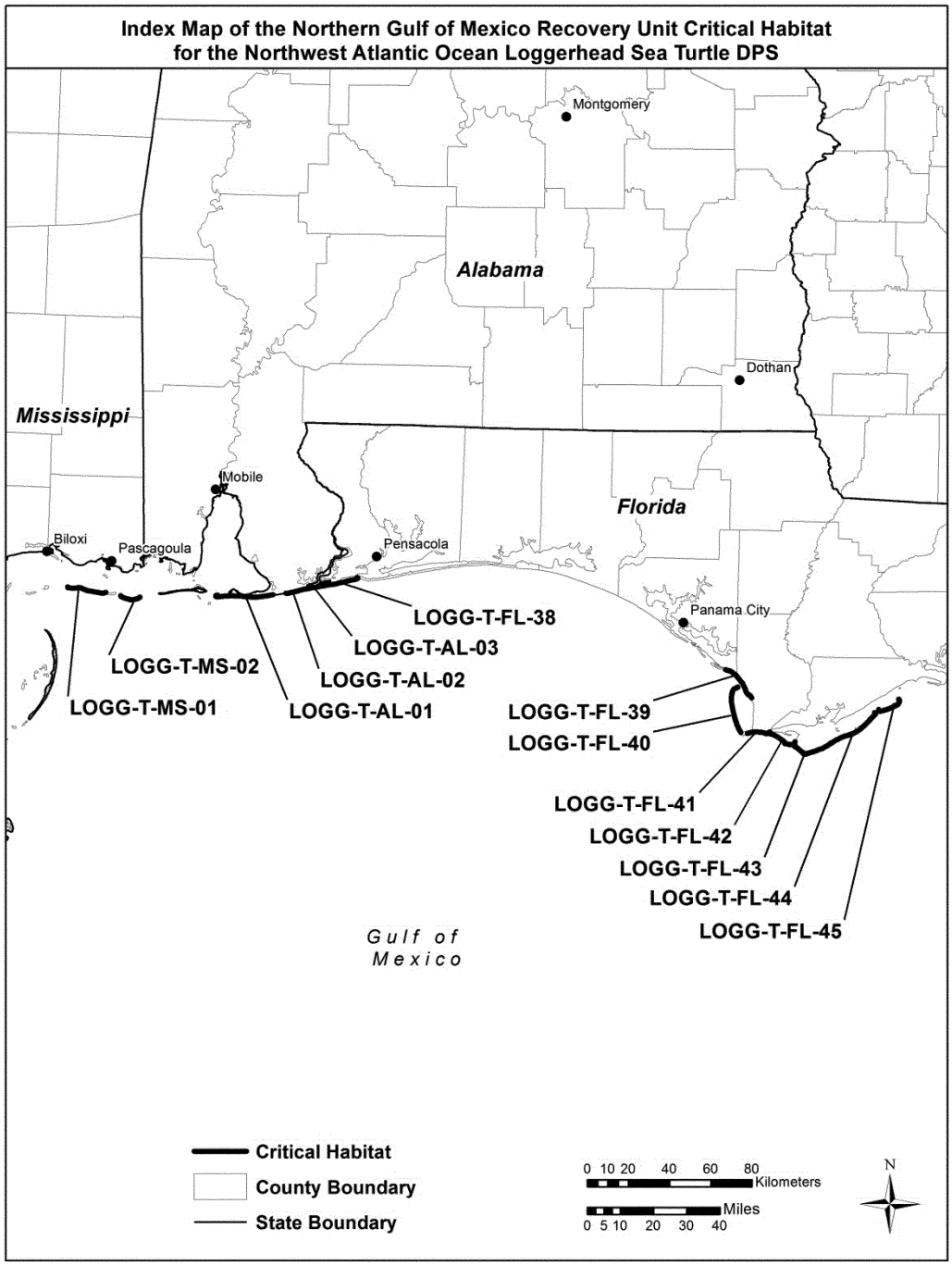
(A) LOGG–T–FL–36—Boca Grande Key: This unit consists of 1.3 km (0.8 mi) of island shoreline along the Gulf of Mexico and extends from 24.53767 N, 82.00763 W (at the northern end of the key) to 24.52757 N, 82.00581 W (at the southern end of the key).

(B) LOGG–T–FL–37—Woman Key: This unit consists of 1.3 km (0.8 mi) of island shoreline along the Gulf of Mexico and extends from 24.52452 N, 81.97893 N (at the western end of the key) to 24.52385 N, 81.96680 W (at the eastern end of the key).

(iii) Map of Units LOGG–T–FL–36 and LOGG–T–FL–37 follows:



(33) *Note:* Index map of critical habitat units in the Northern Gulf of Mexico Recovery Unit:



(34)(i) Units:

(A) LOGG–T–MS–01—Horn Island, Jackson County, Mississippi.

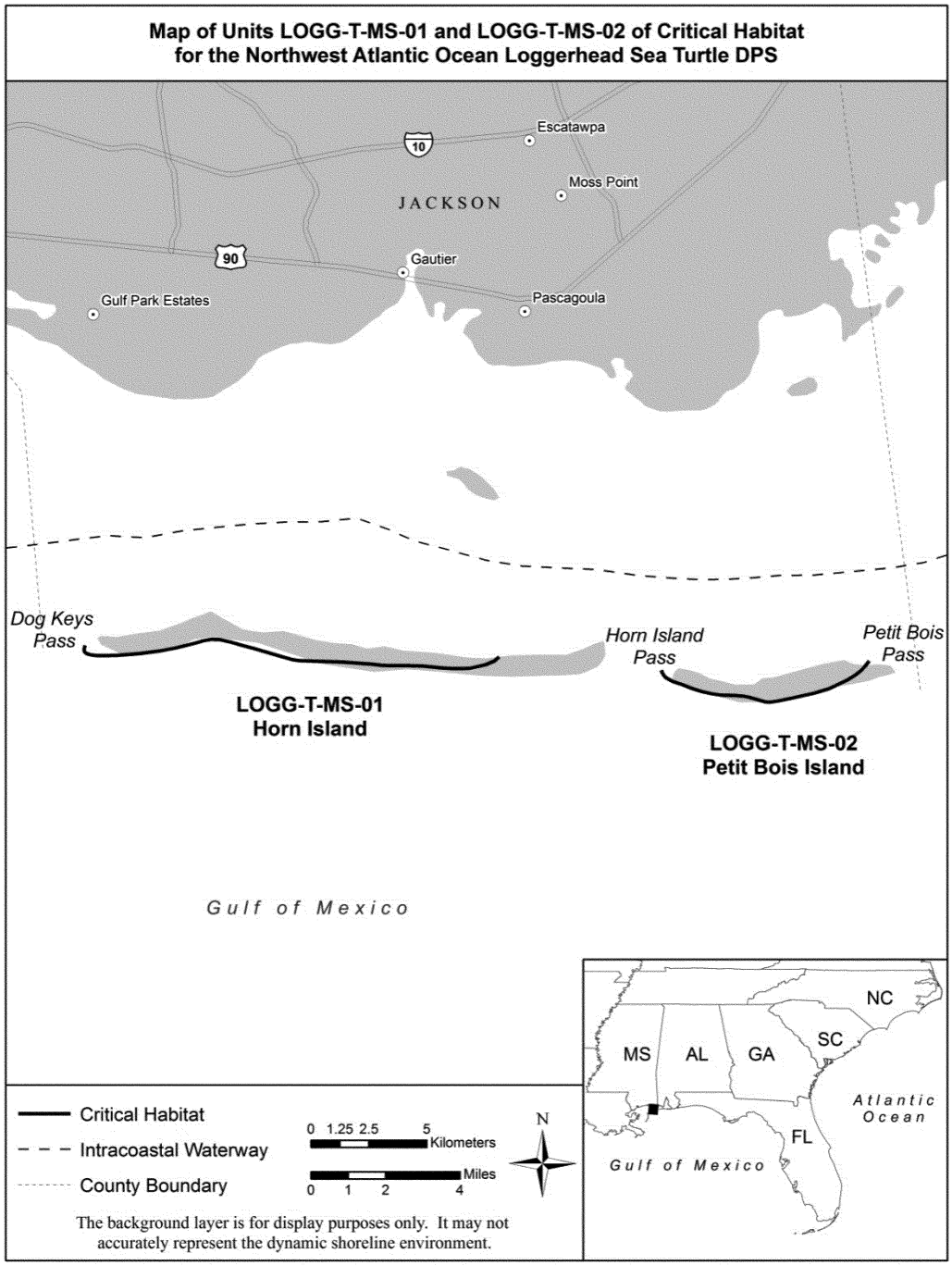
(B) LOGG–T–MS–02—Petit Bois Island, Jackson County, Mississippi.

(ii) General descriptions of units:

(A) LOGG–T–MS–01—Horn Island: This unit consists of 18.6 km (11.5 mi) of island shoreline along the Gulf of Mexico and extends from Dog Keys Pass to the easternmost point of the ocean facing island shore.

(B) LOGG–T–MS–02—Petit Bois Island: This unit consists of 9.8 km (6.1 mi) of island shoreline along the Gulf of Mexico and extends from Horn Island Pass to Petit Bois Pass.

(iii) Map of Units LOGG–T–MS–01 and LOGG–T–MS–02 follows:



(35)(i) Units:

(A) LOGG–T–AL–01—Mobile Bay-Little Lagoon Pass, Baldwin County, Alabama.

(B) LOGG–T–AL–02—Gulf State Park-Perdido Pass, Baldwin County, Alabama.

(C) LOGG–T–AL–03—Perdido Pass-Florida-Alabama line, Baldwin County, Alabama.

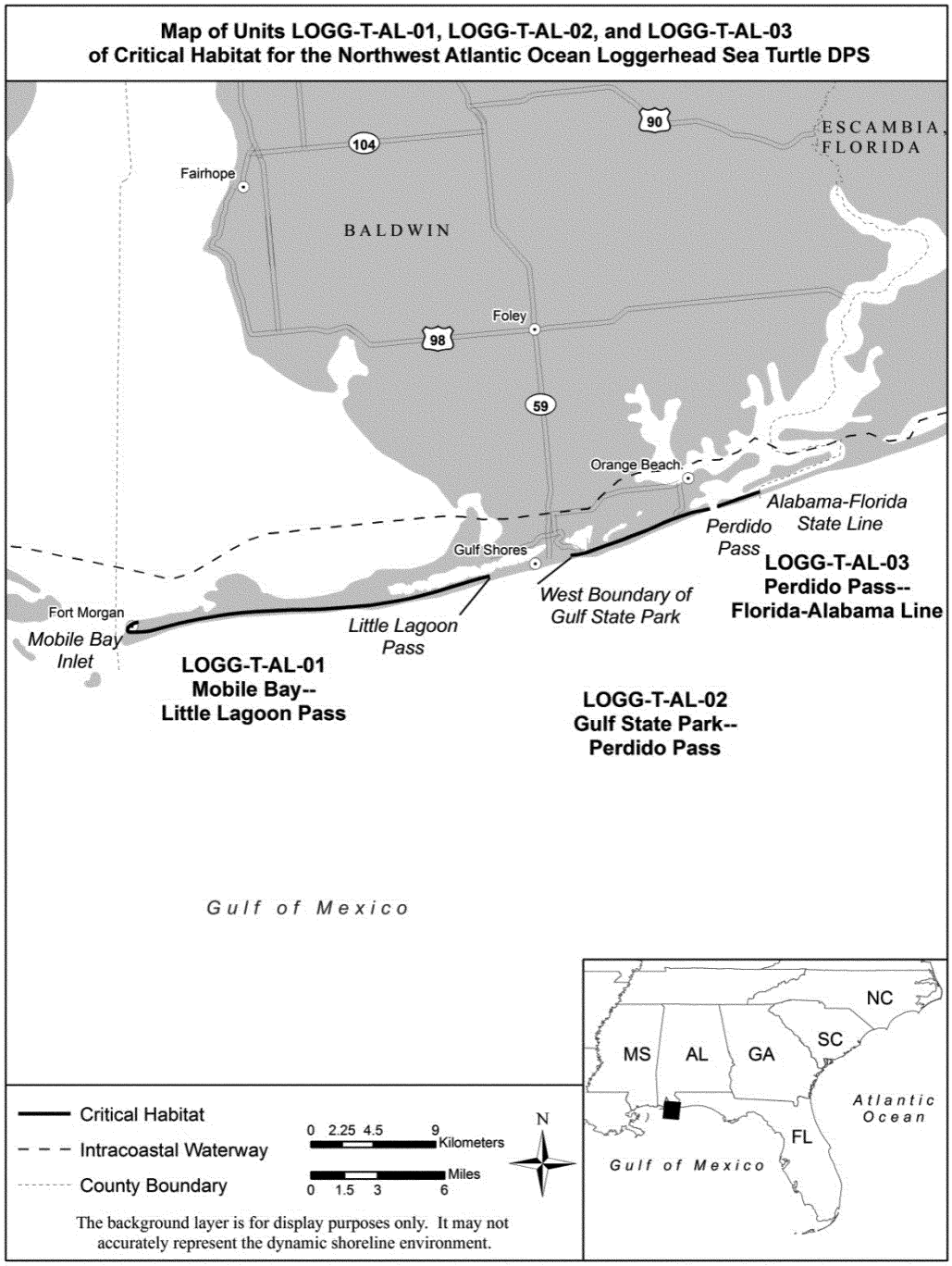
(ii) General descriptions of units:

(A) LOGG–T–AL–01—Mobile Bay-Little Lagoon Pass: This unit consists of 28.0 km (17.4 mi) of island shoreline along the Gulf of Mexico and extends from Mobile Bay Inlet to Little Lagoon Pass.

(B) LOGG–T–AL–02—Gulf State Park-Perdido Pass: This unit consists of 10.7 km (6.7 mi) of island shoreline along the Gulf of Mexico and extends from the west boundary of Gulf State Park to Perdido Pass.

(C) LOGG–T–AL–03—Perdido Pass-Florida-Alabama line: This unit consists of 3.3 km (2.0 mi) of island shoreline along the Gulf of Mexico and extends from Perdido Pass to the Alabama-Florida border.

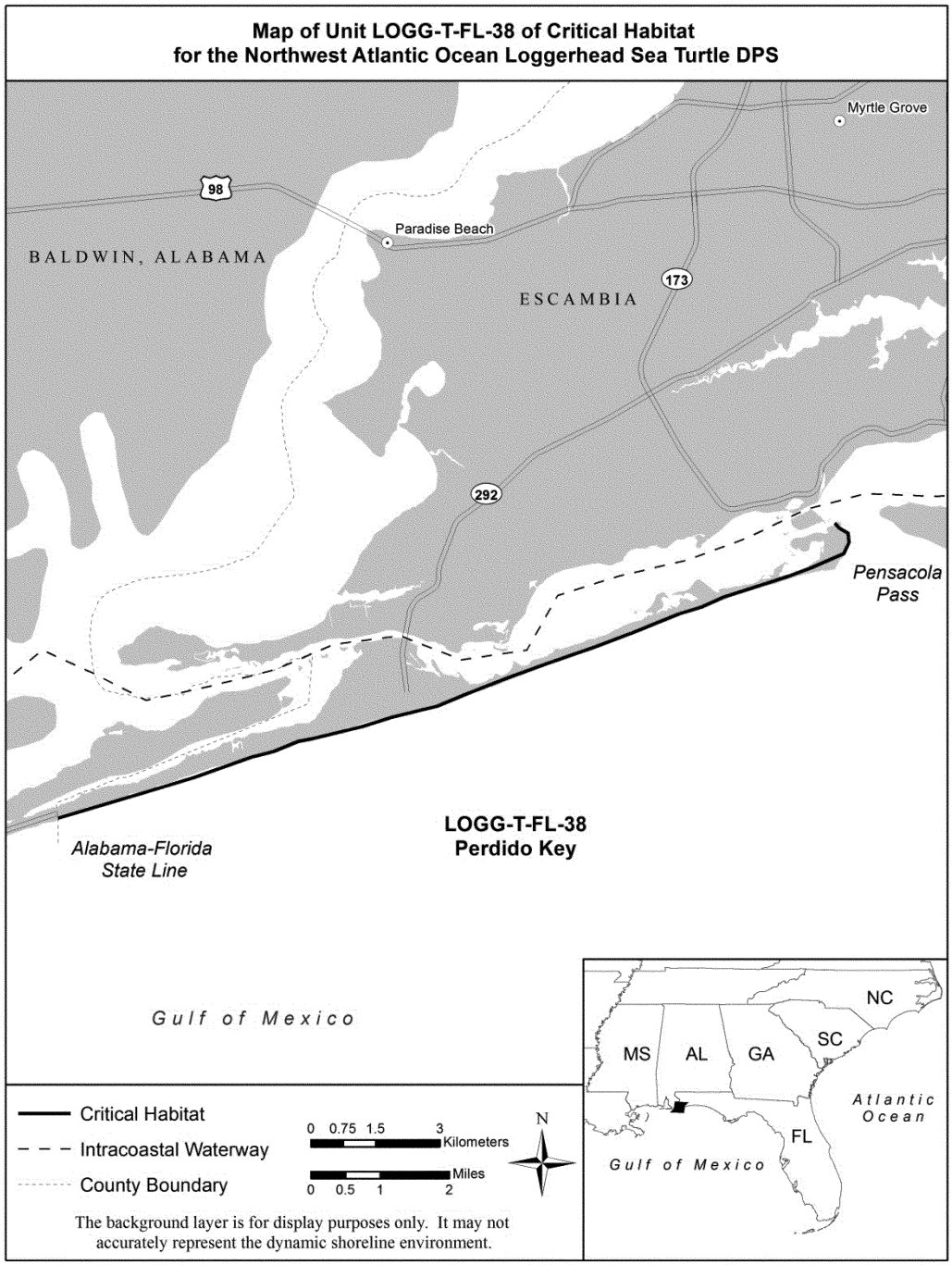
(iii) Map of Units LOGG–T–AL–01, LOGG–T–AL–02, and LOGG–T–AL–03 follows:



(36) Unit LOGG–T–FL–38—Perdido Key, Escambia County, Florida.

(i) *General description:* This unit consists of 20.2 km (12.6 mi) of island shoreline along the Gulf of Mexico and extends from the Alabama-Florida border to Pensacola Pass.

(ii) Map of Unit LOGG–T–FL–38 follows:



(37)(i) Units:

(A) LOGG–T–FL–39—Mexico Beach and St. Joe Beach, Bay and Gulf Counties, Florida.

(B) LOGG–T–FL–40—St. Joseph Peninsula, Gulf County, Florida.

(C) LOGG–T–FL–41—Cape San Blas, Gulf County, Florida.

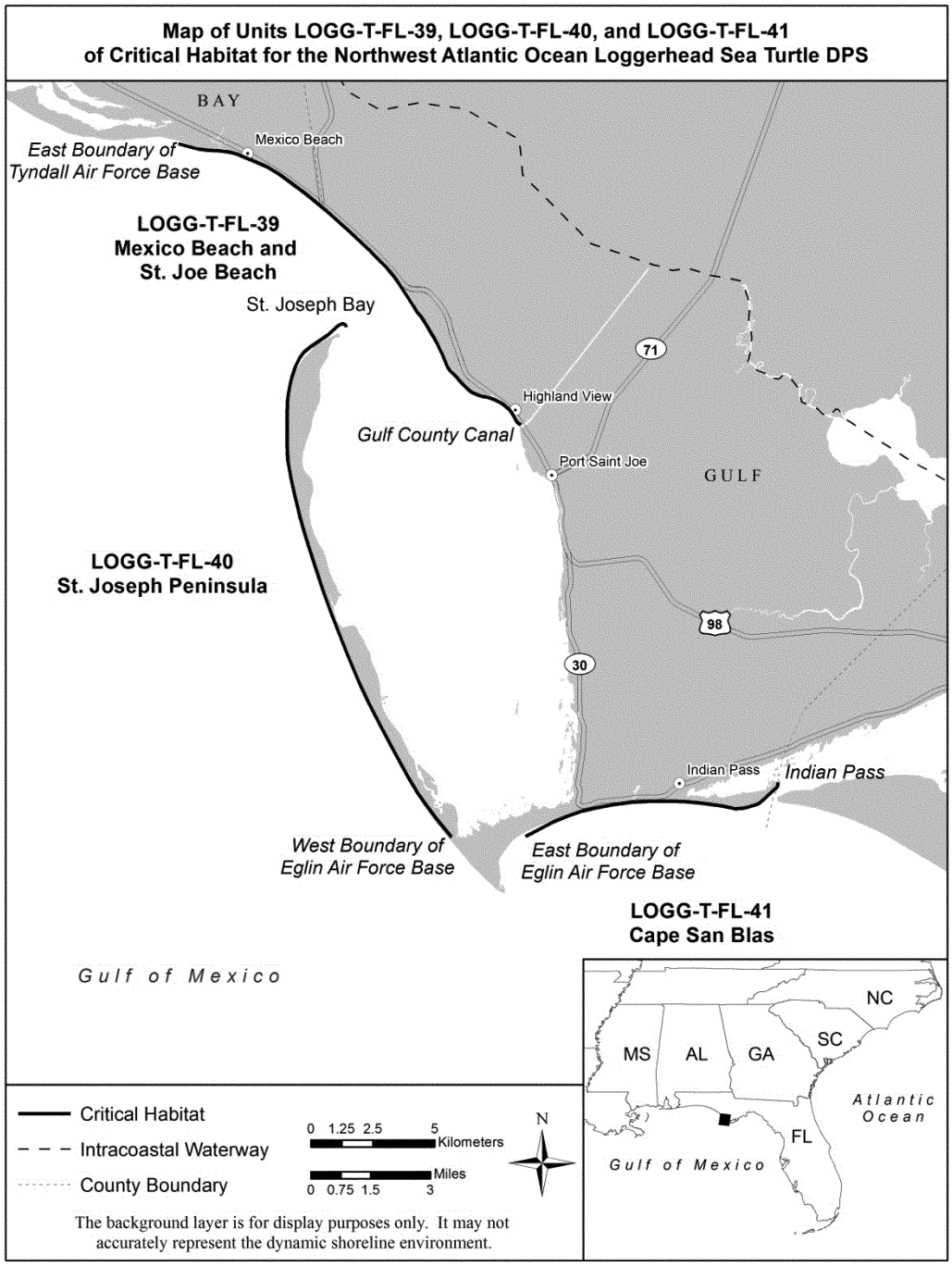
(ii) General descriptions of units:

(A) LOGG–T–FL–39—Mexico Beach and St. Joe Beach: This unit consists of 18.7 km (11.7 mi) of mainland shoreline along the Gulf of Mexico and extends from the eastern boundary of Tyndall Air Force Base to Gulf County Canal in St. Joseph Bay.

(B) LOGG–T–FL–40—St. Joseph Peninsula: This unit consists of 23.5 km (14.6 mi) of a spit shoreline along the Gulf of Mexico and extends from St. Joseph Bay to the west boundary of Eglin Air Force Base.

(C) LOGG–T–FL–41—Cape San Blas: This unit consists of 11.0 km (6.8 mi) of mainland and spit shoreline along the Gulf of Mexico and extends from the east boundary of Eglin Air Force Base to Indian Pass.

(iii) Map of Units LOGG–T–FL–39, LOGG–T–FL–40, and LOGG–T–FL–41 follows:



(38)(i) Units:

(A) LOGG–T–FL–42—St. Vincent Island, Franklin County, Florida.

(B) LOGG–T–FL–43—Little St. George Island, Franklin County, Florida.

(C) LOGG–T–FL–44—St. George Island, Franklin County, Florida.

(D) LOGG–T–FL–45—Dog Island, Franklin County, Florida.

(ii) General descriptions of units:

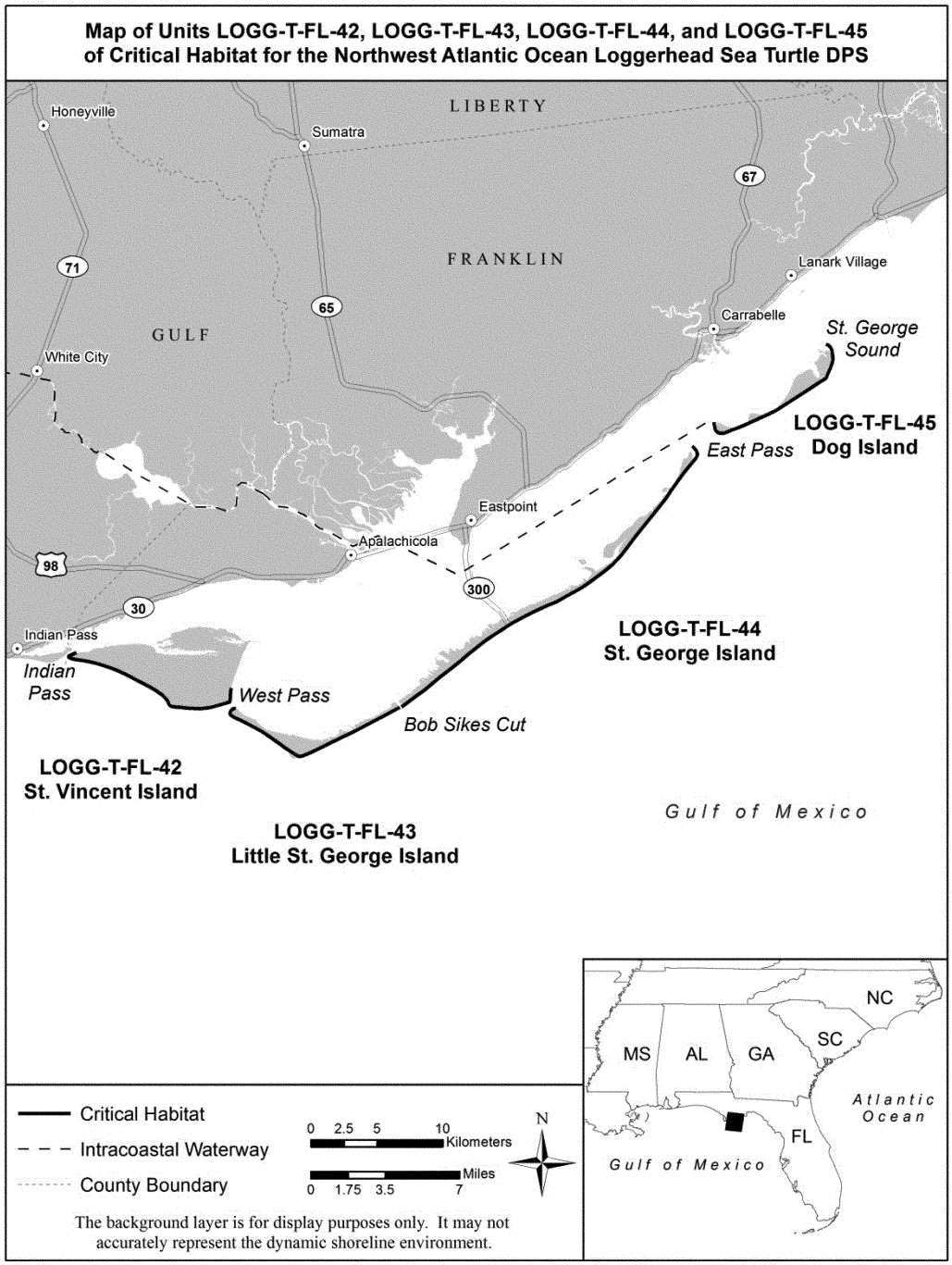
(A) LOGG–T–FL–42—St. Vincent Island: This unit consists of 15.1 km (9.4 mi) of island shoreline along the Gulf of Mexico and extends from Indian Pass to West Pass.

(B) LOGG–T–FL–43—Little St. George Island: This unit consists of 15.4 km (9.6 mi) of island shoreline along the Gulf of Mexico and extends from West Pass to Bob Sikes Cut.

(C) LOGG–T–FL–44—St. George Island: This unit consists of 30.7 km (19.1 mi) of island shoreline along the Gulf of Mexico and extends from Bob Sikes Cut to East Pass.

(D) LOGG–T–FL–45—Dog Island: This unit consists of 13.1 km (8.1 mi) of island shoreline along the Gulf of Mexico and extends from East Pass to St. George Sound.

(iii) Map of Units LOGG–T–FL–42, LOGG–T–FL–43, LOGG–T–FL–44, and LOGG–T–FL–45 follows:



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Dated: June 6, 2014.

Rachel Jacobson,

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks.

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BILLING CODE 3510–22–C