



# Federal Register

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**Wednesday,  
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**Part III**

## **Department of the Interior**

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**Fish and Wildlife Service**

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**50 CFR Part 17  
Endangered and Threatened Wildlife and  
Plants; Critical Habitat for the Alabama  
Beach Mouse; Proposed Rule**

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AU46

**Endangered and Threatened Wildlife and Plants; Critical Habitat for the Alabama Beach Mouse****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to revise critical habitat for the endangered Alabama beach mouse (*Peromyscus polionotus ammobates*) pursuant to the Endangered Species Act of 1973, as amended (Act). In total, approximately 1,298 acres (ac) (525 hectares (ha)) fall within the boundaries of the proposed critical habitat designation. The proposed critical habitat is located in Baldwin County, Alabama.

**DATES:** We will accept comments from all interested parties until April 3, 2006. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by March 20, 2006.

**ADDRESSES:** If you wish to comment, you may submit your comments and materials concerning this proposal by any one of the following methods:

1. You may submit written comments and information to the Acting Field Supervisor, U.S. Fish and Wildlife Service, Daphne Fish and Wildlife Office, 1208-B Main Street, Daphne, AL 36526.

2. You may hand-deliver written comments to our office, at the above address.

3. You may send comments by electronic mail (e-mail) to [Abmcriticalhabitat@fws.gov](mailto:Abmcriticalhabitat@fws.gov). Please see "Public Comments Solicited" under **SUPPLEMENTARY INFORMATION** for file format and other information about electronic filing.

4. You may fax your comments to 251-441-6222.

5. Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.

Comments and materials received, as well as supporting documentation used in the preparation of this proposed rule, will be available for public inspection, by appointment, during normal business hours at the Daphne Fish and Wildlife Office at the above address.

**FOR FURTHER INFORMATION CONTACT:** Acting Field Supervisor, U.S. Fish and Wildlife Service, 1208-B Main Street,

Daphne, AL 36526 (telephone 251-441-5181, facsimile 251-441-6222) or visit our Web site at <http://www.fws.gov/daphne/>.

**SUPPLEMENTARY INFORMATION:****Public Comments Solicited**

Because we want any final action resulting from this proposal to be as accurate and as effective as possible, we ask for comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether the benefit of designation will outweigh any threats to the species caused by designation;

(2) Specific information on the amount and distribution of Alabama beach mouse (ABM) habitat, including areas occupied by the ABM at the time of listing and containing the features essential to the conservation of the species, and areas not occupied at the time of listing that are essential to the conservation of the species;

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat;

(4) Any foreseeable economic, national security, or other potential impacts resulting from the proposed designation and, in particular, any impacts on small entities;

(5) Whether our approach to designating critical habitat could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concerns and comments; and

(6) Information regarding the benefits of exclusion or inclusion of the 337 acres (136 ha) within the proposed critical habitat revision that are owned by the State near the Fort Morgan Historic Site in Unit 1, but that are managed by the Service through a cooperative management agreement with the Alabama Historical Commission.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods (see **ADDRESSES** section). Please submit Internet comments to [abmcriticalhabitat@fws.gov](mailto:abmcriticalhabitat@fws.gov) in ASCII file format and avoid the use of special characters or any form of encryption. Please also include "Attn: critical

habitat [AU46]" in your e-mail subject header and your name and return address in the body of your message. If you do not receive a confirmation from the system that we have received your Internet message, contact us directly by calling our Daphne Fish and Wildlife Office at phone number 251-441-5181. Please note that the Internet address [abmcriticalhabitat@fws.gov](mailto:abmcriticalhabitat@fws.gov) will be closed out at the termination of the public comment period.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home addresses from the rulemaking record, which we will honor to the extent allowable by law. There also may be circumstances in which we would withhold from the rulemaking record a respondent's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

**Role of Critical Habitat in Actual Practice of Administering and Implementing the Act**

Attention to and protection of habitat is paramount to successful conservation actions. The role that designation of critical habitat plays in protecting habitat of listed species, however, is often misunderstood. As discussed in more detail below in the discussion of exclusions under section 4(b)(2) of the Act, there are significant limitations on the regulatory effect of designation under section 7(a)(2) of the Act. In brief, (1) designation provides additional protection to habitat only where there is a Federal nexus; (2) the protection is relevant only when, in the absence of designation, destruction or adverse modification of the critical habitat would in fact take place (in other words, other statutory or regulatory protections, policies, or other factors relevant to agency decision-making would not prevent the destruction or adverse modification); and (3) designation of critical habitat triggers the prohibition of destruction or adverse modification of that habitat, but it does not require

specific actions to restore or improve habitat.

Currently, only 470 species, or 37 percent of the 1,264 listed species in the U.S. under the jurisdiction of the Service, have designated critical habitat. We address the habitat needs of all 1,264 listed species through conservation mechanisms such as listing, section 7 consultations, the Section 4 recovery planning process, the Section 9 protective prohibitions of unauthorized take, Section 6 funding to the States, the Section 10 incidental take permit process, and cooperative, nonregulatory efforts with private landowners. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

In considering exclusions of areas proposed for designation, we evaluated the benefits of designation in light of *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir 2004). In that case, the Ninth Circuit invalidated the Service's regulation defining "destruction or adverse modification of critical habitat." In response, on December 9, 2004, the Director issued guidance to be considered in making section 7 adverse modification determinations. This proposed critical habitat designation does not use the invalidated regulation in our consideration of the benefits of including areas in this final designation. Rather, it relies on the guidance issued by the Director in response to the *Gifford Pinchot* decision (see "Adverse Modification Standard" discussion below). The Service will carefully manage future consultations that analyze impacts to designated critical habitat, particularly those that appear to be resulting in an adverse modification determination. Such consultations will be reviewed by the Regional Office prior to finalizing to ensure that an adequate analysis has been conducted that is informed by the Director's guidance.

On the other hand, to the extent that designation of critical habitat provides protection, that protection can come at significant social and economic cost. In addition, the mere administrative process of designation of critical habitat is expensive, time-consuming, and controversial. The current statutory framework of critical habitat, combined with past judicial interpretations of the statute, make critical habitat the subject of excessive litigation. As a result, critical habitat designations are driven by litigation and courts rather than biology, and made at a time and under a time frame that limits our ability to obtain and evaluate the scientific and

other information required to make the designation most meaningful.

In light of these circumstances, the Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit to the species most in need of protection.

#### **Procedural and Resource Difficulties in Designating Critical Habitat**

We have been inundated with lawsuits for our failure to designate critical habitat, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent (NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species, and final listing determinations on existing proposals are all significantly delayed.

The accelerated schedules of court ordered designations have left the Service with limited ability to provide for public participation or to ensure a defect-free rulemaking process before making decisions on listing and critical habitat proposals, due to the risks associated with noncompliance with judicially imposed deadlines. This in turn fosters a second round of litigation in which those who fear adverse impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless and is very expensive, thus diverting resources from conservation actions that may provide relatively more benefit to imperiled species.

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with the National Environmental Policy Act (NEPA; 42 U.S.C. 4371 *et seq.*). These costs, which are not required for many other

conservation actions, directly reduce the funds available for direct and tangible conservation actions.

#### **Background**

We intend to discuss only those topics directly relevant to the critical habitat revision in this proposed rule. For more information on the Alabama beach mouse, refer to the final listing rule published in the **Federal Register** on June 6, 1985 (50 FR 23872).

The Alabama beach mouse (ABM) is one of five subspecies of the oldfield mouse that inhabit coastal dune communities along the northern coast of the Gulf of Mexico. It is a nocturnal rodent that burrows in primary, secondary, and scrub dunes, and feeds on a variety of dune plants and insects (Rave and Holler 1992; Moyers 1996; Sneckenberger 2001).

The ABM was historically restricted to approximately 33.5 miles of coastline in Baldwin County, Alabama, including the Fort Morgan Peninsula, Gulf Shores and Orange Beach, and Ono Island (50 FR 23872; Holliman 1983; Meyers 1983; Holler and Rave 1991). At the time of listing, the ABM was thought to occupy 10.6 miles of this historic range (50 FR 23872), based on reports by Holliman (1983), who concluded that ABM were found only on 333 acres of habitat and had been extirpated from Ono Island, and contemporaneous research by Meyers (1983) and Dawson (1983). Approximately 1,034 acres, divided into three distinct zones that collectively represented the known range of the subspecies, were designated as critical habitat at the time of listing (50 FR 23872). This original critical habitat designation consisted almost entirely of primary and secondary dunes. Primary constituent elements (PCEs) were defined as dunes and interdunal areas, and associated grasses and shrubs that provide food and cover (50 FR 23872). Presently, we estimate that approximately 2,600 acres of ABM habitat exist throughout the historic range (Service 2003).

Coastal dune habitat along the Baldwin County, Alabama, coastline is generally categorized as primary dunes, secondary dunes, interdunal swales, and scrub dunes. Primary dunes consist of a continuous line of dunes immediately landward of the wet beach characterized by sea oats (*Uniola paniculata*) and other grasses such as bluestem (*Schizachyrium maritimum*) and seaside panicum (*Panicum amarum*). Secondary dunes are more sparsely vegetated rows of smaller sand dunes found landward of primary dunes, often containing such plants as woody goldenrod (*Chrysoma*

*pauciflosculosa*) and false rosemary (*Conradina canescens*) in addition to primary dune plants described above. Interdunal swales and seasonal wetlands are sometimes associated with secondary dune systems. These areas are generally bare sand, but may contain low spots with large-headed nutgrass (*Juncus megacephalus*) and yellow nutgrass (*Cyperus esculentus*). Scrub dunes, located landward of the secondary dunes, are higher-elevation interior habitats that are often dominated by scrub oaks (*Quercus* spp.) and yaupon holly (*Ilex vomitoria*). The highest scrub habitat, called escarpment, often reaches elevations of 30 feet (9 meters) or more (Baldwin County 2004) above sea level, and occurs along an east-west line throughout the middle part of the Fort Morgan Peninsula. The transition from scrub habitat to maritime forest, which is characterized by large trees (pines and oaks), thick leaf litter, and dense understory vegetation, frequently serves to delineate the landward extent of suitable beach mouse habitat.

Since the ABM was listed, continued research has refined previous knowledge of its habitat requirements, as well as factors influencing its use of habitat. The findings most pertinent to this revision of critical habitat involve the role of scrub dune habitat in the population biology of the subspecies. Contrary to the early belief that beach mice were restricted to (Howell 1909; 1921; Ivey 1949), or preferred, the frontal dunes (Blair 1951; Pournelle and Barrington 1953; Bowen 1968), more recent research has shown that scrub habitat serves an invaluable role in the persistence of ABM populations (Swilling et al. 1998; Sneckenberger 2001). ABM occupy scrub habitat on a permanent basis and, studies have found no detectable differences between scrub and frontal dunes in beach mouse body mass, home range size, dispersal, reproduction, survival, food quality, and burrow site availability (Swilling et al. 1998; Swilling 2000; Sneckenberger 2001). While seasonally abundant, the availability of food resources in the primary and secondary dunes fluctuates (Sneckenberger 2001). In contrast, the scrub habitat provides a more stable level of food resources. This becomes crucial when food is scarce or nonexistent in the primary and secondary dunes and suggests that access to scrub dune habitat, in addition to primary and secondary dune habitat, is essential to ABM.

In addition to providing burrow sites, food resources, and cover, scrub dune habitat also serves as a high-elevation refuge during storm events and as a

population source as the frontal and secondary dunes recover (Swilling et al. 1998; Sneckenberger 2001). Hurricanes can severely affect ABM, as tidal surge and wave action overwash habitat, leaving a flat sand surface denuded of vegetation and shearing or eroding primary dunes and occasionally forming new channels between the Gulf of Mexico and bays and lagoons, creating barriers to beach mouse migration (Johnson 1997; Swilling et al. 1998; Service 2004a). Sand is also deposited inland, completely or partially covering vegetation (Johnson 1997; Swilling et al. 1998; Service 2004a). Until frontal dune topography and vegetation redevelop, scrub habitat maintains beach mice populations and has the majority of food resources and potential burrow sites (Lynn 2000; Sneckenberger 2001). While storms temporarily reduce population densities (often severely) and impact dune habitat, this disturbance regime maintains open habitat and retards woody plant succession, yielding a habitat more suitable for beach mice than one lacking disturbance.

The low-nutrient soil of the coastal dune ecosystem receives a pulse of nutrients from the deposition of vegetative debris along the coastline (Lomascolo and Aide 2001). Therefore, as the primary and secondary dunes recover, and food plants develop to take advantage of the newly available nutrients, beach mice readily recolonize this habitat. Habitat recovery times vary depending upon factors such as hurricane characteristics (i.e., severity, amount of associated rain, position of habitat relative to storm eye, storm speed), successional stage of habitat prior to hurricane, and habitat elevation, impact to habitat from hurricane clean-up efforts, amount of precipitation, and restorative actions post hurricane. Depending on these factors, recovery of habitat may take from 1 year to over 40 years (Johnson 1997; Boyd et al. 2003; Traylor-Holzer et al. 2005).

Local extinctions (and subsequent recolonizations) within fragmented populations are common events (Fahrig and Merriam 1992; Stacey and Taper 1992). Habitat fragmentation, identified in the original listing rule as a threat to ABM, continues to be the major threat to ABM conservation, especially when combined with the effects of hurricanes. ABM habitat has been fragmented by human development. Historically, habitats in lower elevations, where ABM were extirpated from hurricane-induced storm surge, were recolonized as population densities increase and dispersal occurs from adjacent populated areas. Despite local extirpations due to storm events or the

harsh, stochastic nature of coastal ecosystems, beach mouse populations and genetic integrity (Wooten 1994) would naturally recover and persist provided that sufficient habitat was available for population expansion following "bottleneck" events. Functional pathways between scrub habitat and lower-elevation dunes more severely impacted by storm events, allowing for dispersal, foraging, and mate finding behavior, are therefore essential to the conservation of the species.

Much of the original 33.5 miles of ABM habitat has been fragmented due to roads, buildings, parking lots, walls, bulkheads, and non-native landscaping, and functional beach mouse pathways between high-elevation scrub and frontal dunes are increasingly scarce. Rangewide (east-west) habitat continuity has likewise suffered as a result of human development activities. Because one hurricane could easily impact the entire range of the ABM, the conservation of remaining east-west and north-south habitat connections throughout the range of the ABM, allowing the naturally occurring cycle of local extirpations and subsequent recolonizations to continue, is of paramount conservation importance.

#### Previous Federal Actions

For more information on previous Federal actions concerning the ABM, refer to the final listing rule published in the **Federal Register** on June 6, 1985 (50 FR 23872), or our 12-month petition finding published in the **Federal Register** on September 26, 2000 (65 FR 57800), in which we announced that revision of critical habitat for the Alabama, Choctawhatchee, and Perdido Key beach mice was warranted.

Until now, work on the revision of critical habitat for the Alabama beach mouse and the other two beach mouse subspecies has been precluded due to other, higher priority listing and critical habitat actions. On June 17, 2003, a lawsuit was filed in the U.S. District Court for the Southern District of Alabama (*The Sierra Club and the Center for Biological Diversity v. Norton*: 1:03-CV-00377-CB), alleging that we violated the Act by failing to revise critical habitat, and that the revision was withheld or unreasonably delayed under the Administrative Procedure Act (5 U.S.C. 551 *et seq.*). In a December 2004 declaration filed with the Court, we stated that we would submit to the **Federal Register** a proposed rule revising ABM critical habitat by January 18, 2006, and a final rule by January 15, 2007. A proposed rule revising critical habitat for the Choctawhatchee and

Perdido Key beach mice was published in the **Federal Register** on December 15, 2005 (70 FR 74426).

We briefed the ABM recovery team on our general plans to revise critical habitat for the ABM on May 16, 2005. On November 9, 2005, we briefed State and Federal agencies on the critical habitat process and our 2004 declaration and on November 10, 2005, we held a critical habitat informational meeting for the general public at the City of Gulf Shores auditorium in Gulf Shores, Alabama, to discuss the critical habitat process.

### Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. “Conservation” means the use of all methods and procedures that are necessary to bring an endangered or a threatened species to the point at which listing under the Act is no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 requires consultation on Federal actions that are 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 government or public access to private lands.

To be included in a critical habitat designation, the habitat within the area occupied by the species at the time of listing must first have features that are essential to the conservation of the species. Critical habitat designations identify, to the extent known and using the best scientific data available, habitat areas that provide essential life cycle needs of the species (i.e., areas on which are found the primary constituent elements (PCEs), as defined at 50 CFR 424.12(b)).

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may

require special management or protection. Thus, we do not include areas where existing management is sufficient to conserve the species. (As discussed below, such areas may also be excluded from critical habitat pursuant to section 4(b)(2).) Accordingly, when the best available scientific data do not demonstrate that the conservation needs of the species so require, we will not designate critical habitat in areas outside the geographic area occupied by the species at the time of listing. An area that is currently occupied by the species but was not known to be occupied at the time of listing will likely be essential to the conservation of the species and, therefore, included in the critical habitat designation.

The Service’s Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), and section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria, establish procedures, and provide guidance to ensure that decisions made by the Service represent the best scientific data available. They require Service 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 determining which areas are critical habitat, a primary source of information is generally the listing rule for the species. Additional information sources 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, or other unpublished materials and expert opinion or personal knowledge. All information is used in accordance with the provisions of Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical

habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

Areas that support populations, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. 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, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

### Methods

As required by section 4(b) of the Act, we used the best scientific data available in determining areas that contain the physical and biological features essential to the conservation of the subspecies (see Primary Constituent Elements section). We have reviewed the overall approach to conservation of the subspecies undertaken by the local, State, and Federal agencies operating within the species’ range since its listing, the original ABM recovery plan (Service 1987).

In our development of the primary constituent elements (PCEs) and criteria for determining critical habitat (see Criteria section), we reviewed the available information pertaining to the historic and current distributions, life histories, habitats of, and threats to beach mice in general, and where possible, to the ABM in particular. We have also reviewed available information that pertains to the population biology and habitat requirements of the ABM or closely related subspecies, including data in reports submitted during section 7 consultations, and as a requirement from section 10(a)(1)(B) incidental take permits or section 10(a)(1)(A) recovery permits; hurricane-induced storm surge inundation estimates from field data and models, research published in peer-reviewed articles and presented in academic theses and agency reports; Geographic Information System (GIS) coverages; and the ABM habitat map produced by Service in 2003. We have also reviewed our own site-specific

subspecies and habitat information, trapping data, recent biological surveys, and reports and communication with other qualified biologists or experts.

We began our analysis by considering the historic habitat available to the subspecies. Early accounts of the ABM and the 1985 listing document indicate that the natural historic range of the species stretched from the tip of the Fort Morgan Peninsula (presently Fort Morgan State Historic Site) eastward to Perdido Pass in Baldwin County, Alabama (Howell 1909; Bowen 1968; 50 FR 23872; Holler and Rave 1991). The north-south extent of this historic range is uncertain. Early research and collection efforts focused on frontal dunes and, therefore, we were unaware of the extent of scrub habitat usage by the subspecies until recent studies became available. We now understand beach mice in higher-elevation habitat tend to survive hurricanes, and high-elevation scrub habitat serves as a refuge from storms for mice in frontal dunes (Swilling *et al.* 1998; Sneckenberger 2001; Service 2004a). It is reasonable to assume that ABM, which evolved in a dynamic coastal environment driven in part by hurricane activity, have always utilized high-elevation scrub habitats for survival during and after major storm events.

We next employed five steps to identify our proposed critical habitat units. We first considered our 2003 ABM habitat map, which is based on the best available trapping and habitat data, and utilized in permitting decisions, interagency consultation, and research studies involving the subspecies. This map contains all of those areas that were occupied at the time of listing and that have been found to be occupied since listing, that are still available to the ABM. Secondly, at those sites, we identified, in accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, the physical and biological habitat features (also called primary constituent elements, or PCEs) (see PCE section) that are essential to the conservation of the species. We then determined the subset of the habitat identified in the ABM habitat map that contains those PCEs. These areas were then mapped using ArcMap 9, a GIS program developed by the Environmental Systems Research Institute, Inc. Our mapping process was based on the need to exclude areas that lack PCEs, while simultaneously accounting for the dynamic nature of coastal habitat. We mapped critical habitat units at each site based on the extent of habitat containing sufficient PCEs necessary to support biological functions of the ABM. We depicted the

mapped shoreline according to the mean high water line (MHWL), although the land configurations of these coastal areas change dramatically through time. Landward boundaries of the units, which frequently consist of urban areas or maritime forest, are more stable and provide easily discernable landmarks when visiting a proposed critical habitat unit. In the fifth and final step, we identified any of the mapped areas that do not meet the definition of critical habitat under section 3(5)(A) of the Act, and units that may be excluded based on section 4(b)(2) of the Act (see the Application of Sections 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act, below, for a detailed description).

Many areas within the broad historic range of the subspecies, once occupied by ABM, are no longer capable of supporting them because of conversion for human use or isolation due to human development patterns (Endangered Species Consulting Services 2002; Service 2003). Developed areas, including beachfront condominium complexes within the cities of Gulf Shores and Orange Beach, the entire length of Ono Island, and the footprints of existing developments throughout the Fort Morgan Peninsula, were eliminated from consideration for critical habitat.

We eliminated from consideration those areas that have been impacted by development by consulting our 2003 ABM habitat map (Service 2003), GIS coverages, and additional trapping data. While the quality of habitat ebbs and flows in response to impacts and hurricanes and tropical storms, the 2003 map, combined with trapping information and observations since 2003, represents our best estimate of habitat occupied by the ABM at the time of listing, and from the time of listing until present. The 2003 map includes all areas, according to trapping conducted or funded by both the Service and section 10(A)(1)(a) recovery permit holders, presently occupied by the ABM. Through a careful analysis of habitat continuity, trapping data, and anthropogenic impacts, we determined which subset of this current habitat contains the PCEs (see Primary Constituent Elements section). This resulted in 2,360 ac (955 ha) of occupied habitat with features that we found to be essential to the conservation of the subspecies. For comparison, this includes almost all critical habitat originally designated at the time of listing, as well as scrub habitat now known to contain features that are essential to the ABM.

### Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, we are required to base critical habitat determinations on the best scientific data available and to consider within areas occupied by the species at the time of listing those physical and biological features that are essential to the conservation of the species (PCEs), and that may require special management considerations or protection. These include, but are not limited to: Space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The specific PCEs essential for the ABM are derived from its biological needs as described in the Background section of this proposal, and are set forth in additional detail provided below.

#### *Space for Individual and Population Growth and Normal Behavior*

Long-term trapping data have shown that ABM densities are cyclic and fluctuate by magnitudes on a seasonal and annual basis (Swilling *et al.* 1998; Sneckenberger 2001; Rave and Holler 1992). These fluctuations can be a result of reproduction rates, food availability, habitat quality and quantity, catastrophic events, disease, and predation (Blair 1951; Bowen 1968; Smith 1971; Hill 1989; Rave and Holler 1992; Swilling *et al.* 1998; Swilling 2000; Sneckenberger 2001). Without suitable habitat sufficient in size to support the natural cyclic nature of beach mouse populations, subspecies are at risk from local extirpation and extinction, and may not attain the densities necessary to persist through storm events and seasonal fluctuations of resources. The conservation of multiple large, contiguous tracts of habitat is a key to the persistence of beach mice.

A variety of habitat types is needed to conserve ABM populations due to the dynamic nature of the coastal environment. Large, contiguous habitat areas that contain an intact continuum of habitat from the primary dunes landward to high-elevation scrub dunes are perhaps the most important to the persistence of the ABM. Contiguous habitat allows for natural behavior such as dispersal and exploratory

movements, as well as gene flow to maintain genetic variability of the population.

However, very few tracts with this structure currently exist. Because much of occupied ABM habitat has been fragmented by human development and is, therefore, neither large in size nor contiguous, the maintenance of multiple populations and habitat connectivity (see discussion below) is crucial. Local extinctions (and subsequent recolonizations) within fragmented populations are common events (Fahrig and Merriam 1992; Stacey and Taper 1992). Species that are protected across their ranges have lower probabilities of extinction (Soulé and Wilcox 1980). The ABM is a narrowly endemic subspecies restricted to less than 34 miles (54 km) of coastline, and one major hurricane could easily affect the entire population. Impacts within individual hurricanes, however, can vary greatly in intensity, and wide fluctuations in storm surge and associated wave damage are possible depending on bathymetry (water depths), beach configuration, and variations in wind speed and waves within the storm. Protecting multiple populations that represent the natural range of the subspecies, therefore, would likely increase the chance that at least one population within the range of a subspecies will survive episodic storm events and persist while vegetation and dune structure recover. This theory has been supported by population viability models conducted on the subspecies (Oli et al. 2001; Traylor-Holzer 2005a, 2005b) and careful study of the closely related Perdido Key beach mouse (where a now potentially extirpated population was the source of the two remaining populations of the subspecies (Holler et al. 1989; Service 2004b)).

While maintaining multiple populations throughout the geographic range of each beach mouse subspecies provides protection from extinction (Oli et al. 2001), conservation of a subspecies necessitates protection of genetic variability throughout its range (Ehrlich 1988). Conservation of a species over a range of habitat types where it is known to occur reduces the chance of losing disjunct populations, which represent important conservation value for their adaptation to local environmental conditions and their genetic uniqueness (Fahrig and Merriam 1994). This includes "peripheral" populations (populations on the fringes of the natural range of the species/subspecies), which in many cases are thought to be highly desirable because of their distinct genetic characters or adaptations due to divergent natural selection (Lesica and Allendorf 1995). Preservation of natural

populations throughout the range of each subspecies is therefore crucial, as the loss of a population of beach mice can result in a permanent loss of alleles (genes) (Wooten 1999). This genetic variability, once lost, cannot be regained through translocations or other efforts.

#### *Protection From Hurricanes*

Hurricanes and tropical storms are a frequent occurrence along the Alabama coastline. Between 1899 and 2004, 15 storms of Category 1 or greater on the Saffir-Simpson Hurricane Scale have directly impacted ABM habitat (NOAA 1999; Service 2004a, 2005a). Hurricanes can impact beach mice either directly (e.g., drowning) or indirectly (e.g., loss of habitat). When Hurricane Ivan, a strong Category 3 hurricane, made landfall in Gulf Shores on September 16, 2004, it adversely impacted an estimated 90 to 95 percent of primary and secondary dune habitat throughout the range of the ABM (Service 2004a). A review of trapping data from various locations following Ivan indicated that mice may have been extirpated from these low-lying areas (Service 2004a). However, higher-elevation scrub habitat, while receiving damage from salt spray and wind (Boyd et al. 2003; Service 2004a), is often not inundated by hurricane-induced storm surge and associated battering waves. This has been observed both in recent storms (including Hurricanes Ivan and Katrina (2005)) and hurricane model runs (U.S. Army Corps of Engineers (ACOE) 2001; Service 2004a, 2004c, 2005a; ENSR Corporation (ENSR) 2004).

Following Hurricane Opal of 1995, Swilling et al. (1998) reported higher ABM densities in the scrub than the foredunes nearly one year after the storm. As vegetation began to recover, however, the primary and secondary dunes were reoccupied by ABM and population densities surpassed those in the scrub in the fall and winter following the storm. Similar movement and habitat occupation patterns were observed following Hurricane Georges in 1998. Therefore, while ABM numbers and habitat quality in the frontal dunes ebb and flow in response to tropical storms, the higher-elevation scrub habitat is important to mouse conservation as a more stable environment during and after storm events.

According to our review of estimated flood levels from hurricanes using the National Hurricane Center's Sea, Lake and Overland Surge from Hurricanes (SLOSH) model (ACOE 2001), and ABM habitat maps (Service 2003), we estimate that between 827 and 620 acres (335 and 251 hectares) of ABM habitat

would not be inundated during a Category 3 to 5 storm. A recent estimate of the 100-year flood (flood event that has a 1 percent chance of occurrence each year) due to hurricane activity concluded that 895 acres (362 hectares) of ABM habitat would not be inundated (ENSR 2004). In our review of beach mouse habitat following the direct hit from Hurricane Ivan, we determined (through the review of aerial photography taken before and after the storm and delineation of the surge debris line with global positioning systems) that approximately 1,400 ac (567 ha) were not directly impacted by storm surge. Much of this area was however, moderately impacted (such as wind damage to vegetation, salt spray burning of vegetation) (Service 2004a). Following Hurricane Ivan, mice were trapped almost exclusively in scrub habitat that was not inundated by storm surge, or in immediately adjacent areas (Service 2004a; Service 2005a; Volkert 2005; Endangered Species Consulting Services 2004d). Thus, high-elevation habitat not inundated by hurricanes is essential to the conservation of the species.

#### *Habitat Connectivity*

Habitat loss and fragmentation associated with residential and commercial real estate development is the primary threat contributing to the endangered status of beach mice (Holler 1992; Humphrey 1992). Holliman (1983) estimated that 62 percent of all beach mouse habitat in Alabama had been lost to development between 1921 and 1983. More recent studies (Douglass et al. 1999; South Alabama Regional Planning Commission 2001) document continued growth. Coastal development has fragmented beach mouse habitat and created disjunct populations (for example, population at Gulf State Park). Isolation of habitats by imposing barriers to species movement is an effect of fragmentation that equates to reduction in total habitat (Noss and Csuti 1997). Furthermore, the isolation of small populations of beach mice reduces or precludes gene flow between populations and can result in the loss of genetic diversity (Mech and Hallett 2001). Selander et al. (1971) found that allozyme variation in beach mouse populations (Perdido Key beach mouse, Choctawhatchee beach mice, and ABM) was significantly lower than the variation detected in adjacent inland populations. Correlations between genetic variation (heterozygosity) and other factors have been well-researched with oldfield mice. Lower levels of heterozygosity have been linked to less efficient feeding, fewer demonstrations



of social dominance and exploratory behavior, and smaller body size (Smith et al. 1975, Garten 1976, Teska et al. 1990). Research focused on inbreeding depression in oldfield mice (including one beach mouse subspecies) determined that the effects of inbreeding negatively influenced factors such as litter size, number of litters, and juvenile survivorship (Lacy et al. 1995). Demographic factors such as predation (especially by domestic cats), diseases, and competition with house mice are intensified in small, isolated populations, which may be rapidly extirpated by these pressures. Especially when coupled with events such as storms, reduced food availability, and/or reduced reproductive success, isolated populations may experience severe declines or extirpation (Caughley and Gunn 1996). The strength of influence these factors have on populations or individuals is largely dependent on the degree of isolation.

Connectivity becomes essential where mice occupy fragmented areas lacking one or more habitat types. If scrub habitat is lacking from a particular tract, adjacent or connected tracts with scrub habitat are necessary for food and burrow sites when resources are scarce in the frontal dunes, and are essential to beach mouse populations during and immediately after hurricanes. Trapping data suggest that beach mice occupying the scrub (following hurricanes) recolonize the frontal dunes once vegetation and some dune structure have recovered (Swilling et al. 1998; Sneckenberger 2001). Similarly, when frontal dune habitat is lacking from a tract and a functional pathway from scrub habitat to frontal dune habitat does not exist, beach mice may not be able to obtain the resources necessary to expand the population and reach the densities necessary to persist through the harsh summer season or the next storm. General research supports the effectiveness of biological corridors (Beier and Noss 1998) and recent population viability analysis work suggests the importance of functional pathways for ABM (Traylor-Holzer 2005). These functional pathways may allow for natural behavior such as dispersal and exploratory movements, as well as gene flow to maintain genetic variability of the population within fragmented or isolated areas. To that end, contiguous tracts or functionally connected patches of suitable habitat provide connectivity that is essential to the long-term conservation of beach mice.

#### *Food Resources and Vegetative Cover*

ABM feed primarily upon seeds and fruits but have been shown to prey on insects. They appear to forage on food items based on availability and have shown no preferences for particular seeds or fruits (Moyers 1996). Research suggests that the availability of food resources fluctuates seasonally in Gulf Coast coastal dune habitat, specifically that food resources may be limited during winter and spring in the scrub habitat and limited in the frontal dunes in the summer and fall (Sneckenberger 2001). Nutritional analysis of foods available in each habitat revealed that seeds of plant species in both habitats provide a similar range of nutritional quality. The frontal dunes appear to have more species of high-quality foods, but these sources are primarily grasses and annuals that produce large quantities of small seeds in a short period of time. Foods available in the scrub consist of larger seeds and fruits that are produced throughout a greater length of time and linger in the landscape. Consequently, large, contiguous tracts containing both frontal dune and scrub habitat types are necessary to provide both: (1) a large quantity of food resources coinciding with the reproductive season, and (2) a relatively stable source of food resources when availability is reduced.

Foraging activities and other natural behaviors of ABM are influenced by many factors. Artificial lighting alters behavior patterns, causing beach mice to avoid otherwise suitable habitat and decreases the amount of time they are active (Bird et al. 2004). The presence of vegetative cover reduces predation risk and perceived predation risk of foraging beach mice, and allows for normal movements, activity, and foraging patterns. Foraging in sites with vegetative cover is greater and more efficient than in sites without cover (Bird 2002). Beach mice have also been found to select habitat for increased percent cover of vegetation, and decreased distance between vegetated patches (Smith 2003). Behavioral modification or increased predation in response to these factors can result in population decreases and restricted use of available habitat.

#### *Burrow Sites*

ABM use burrows to avoid predators, protect young, store food, and take refuge between foraging bouts and during periods of rest and have been shown to select burrow sites based on a suite of abiotic and biotic factors. A limitation in one or more factors may result in a shortage of suitable sites and

the availability of potential burrow sites in each habitat may vary seasonally. ABM tend to construct burrows in areas with greater plant cover, less soil compaction, steep slopes, and higher elevations above sea level (Lynn 2000; Sneckenberger 2001). Burrows are typically constructed in Coastal beach or St. Lucie sands (Soil Conservation Service 1964) free of obstructions or debris. These factors are likely important in minimizing energy costs of burrow construction and maintenance while maximizing the benefits of burrow use by making a safe and physiologically efficient refuge. Similar to food resources, this fluctuation in availability of burrow sites suggests that a combination of primary, secondary, and scrub dune habitat is essential to beach mice at the individual level.

#### *Habitats Protected From Anthropogenic Disturbance*

Artificial lighting, non-native species, and refuse can directly and indirectly increase predation pressure on beach mice beyond their natural levels. Free-roaming and feral pets are believed to have a devastating effect on beach mouse persistence (Bowen 1968; Linzey 1978) and are considered to be the main cause of the loss of at least one population of ABM (Holliman 1983). Cat tracks have been observed in areas of low trapping success for beach mice (Moyers et al. 1999). A VORTEX population and habitat viability analysis for the ABM indicated that if each population had as few as one feral cat that ate one mouse a day, rapid extinction occurred in over 99 percent of all iterations (Traylor-Holzer et al. 2005). Refuse has been shown to attract competitors (house mice, *Mus musculus*) and predators (such as coyote, *Canis latrans*; red fox, *Vulpes vulpes*), unsettling the natural predator/prey balance and competing with beach mice for resources. This issue is of particular importance and has the most impact when beach mouse populations are at low densities. This influx of development-related predators and competitors is believed to be the final cause of the extinction of the pallid beach mouse (*Peromyscus polionotus decoloratus*) (Humphrey 1992).

Beyond the direct effects of mortality due to predation, beach mouse habitat use and foraging patterns are influenced by these anthropogenic disturbances. Artificial lighting, for example, increases the risk of predation and influences beach mouse foraging patterns and natural movements as it increases their perceived risk of predation. Beach mice avoid areas with artificial lighting or reduce the time



spent foraging in lighted areas (Bird et al. 2004.) Consequently, because of these anthropogenic factors, mice may be unable to gather necessary food resources or fail to utilize otherwise suitable habitat.

#### *Primary Constituent Elements for the Alabama Beach Mouse*

PCEs determined for the ABM in connection with the original designation of critical habitat included dunes and interdunal areas, and associated grasses and shrubs that provide food and cover (50 FR 23872). However, these elements did not address many of the requirements that we now know are crucial for long-term persistence of beach mice, including the need for scrub dune habitat. Based on our current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, we have determined that the ABM's PCEs are:

1. A contiguous mosaic of primary, secondary, and scrub vegetation and dune structure, with a balanced level of competition and predation and few or no competitive or predateous nonnative species present, that collectively provide foraging opportunities, cover, and burrow sites.

2. Primary and secondary dunes, generally dominated by sea oats (*Uniola paniculata*), that despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators.

3. Scrub dunes, generally dominated by scrub oaks (*Quercus* spp.), that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane-induced storm surge.

4. Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas.

5. A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach mice, necessary for normal behavior, growth, and viability of all life stages.

#### **Criteria Used To Identify Critical Habitat**

We are proposing to designate critical habitat on lands that were occupied at the time of listing and contain sufficient PCEs to support life history functions essential to the conservation of the ABM. In a few instances, we are also proposing to designate areas that were

identified as occupied after listing, but that we have determined to be essential to the conservation of the ABM.

An area was considered for designation where it possesses one or more of the PCEs and at least one of the following characteristics: (1) Supports a core population of beach mice; (2) was occupied by ABM at the time of listing; (3) is currently occupied by the beach mouse according to Service ABM trapping protocol (Service 2005c) and has been determined to be essential to the conservation of the species. The Service has developed a trapping protocol for establishing absence of beach mice (see **ADDRESSES** to request a copy). To document absence, this protocol requires 2 years of quarterly trapping with no beach mice captured. Presence of beach mice, however, can be documented by the capture of one beach mouse, or the observation of beach mouse tracks or beach mouse burrows by a beach mouse expert or similarly qualified biologist.

Following the strategy outlined above, we began by mapping coastal dune communities within the historic range of each subspecies of beach mouse. These areas were refined by using aerial map coverages to eliminate features such as housing developments and other areas that are unlikely to contribute to the conservation of beach mice. We then focused on areas supporting beach mice, as well as areas that contain the PCEs for the subspecies.

Because the ABM habitat is dynamic and changes in response to coastal erosion, we believe that limiting the proposed designation to areas occupied at the time of listing would not yield sufficient habitat for the persistence of beach mice. The fragmentation of the species' historic habitat, coupled with the dynamic nature of coastal dune habitat due to tropical storms, makes multiple populations essential for species conservation. Consequently, we are proposing units that were not occupied at the time of listing. These areas, however, are currently occupied by the species, have one or more of the PCEs, are within the historic range of the species, and are essential for the conservation of the ABM.

The combined extent of these mapped areas defines the habitat that contains features that are essential to the conservation of the subspecies. Although these areas proposed for designation represent only a small proportion of the subspecies' historic range, they include a significant proportion of the remaining intact coastal communities and reflect the habitat types historically occupied by beach mice. Areas not containing the

PCEs, such as wetlands and maritime forests, were not included within the proposed designation. Field reconnaissance was done in a few areas for verification. We eliminated highly degraded tracts, and small, isolated, or highly fragmented tracts that provide no long-term conservation value. The remaining areas were identified as containing the PCEs and are proposed as five critical habitat units for the ABM.

We reviewed existing ABM management and conservation plans to determine if any areas identified above did not meet the definition of critical habitat according to section 3(5)(A) of the Act, or could be excluded from the revised designation in accordance with section 4(b)(2). Portions of the Perdue Unit of the Bon Secour National Wildlife Refuge (Refuge) are adequately protected under the Refuge's Comprehensive Conservation Plan (CCP) and do not require special management or protection. While these areas, which collectively total 1,063 ac (430 ha), contain the habitat features that are essential to the conservation of the subspecies, they are proposed for exclusion (see Exclusions section).

Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed species incidental to otherwise lawful activities. An incidental take permit application must be supported by a habitat conservation plan (HCP) that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the requested incidental take. We often exclude non-Federal public lands and private lands that are covered by an existing operative HCP under section 10(a)(1)(B) of the Act from designated critical habitat because the benefits of exclusion outweigh the benefits of inclusion as discussed in section 4(b)(2) of the Act. As discussed in further detail below (see "Application of Sections 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act"), we are proposing 56 properties for exclusion that are currently protected through Habitat Conservation Plans that provide protection and habitat management for Alabama beach mice.

There are 56 properties that have been issued incidental take permits (ITPs) for ABM under section 10(a)(1)(B) within the areas that we have identified contain the features essential to the conservation of the subspecies. All of these properties possess HCPs that require the use of native plants in landscaping, control of domestic and feral cats and house mice, wildlife-friendly lighting, monitoring, and other activities beneficial to ABM. After our review of these ITPs and

HCPs, we believe the benefits of exclusion from the proposed critical habitat revision outweigh the benefits of inclusion for all 56 of these areas, covering a total of 158 ac (64 ha). We propose to designate the remaining 1,298 ac (525 ha) as ABM critical habitat.

In summary, the habitat contained within the five proposed units described below, combined with habitat within the Perdue Unit of the Refuge and in the HCP sites proposed for exclusion, constitutes our best determination of areas that contain the physical and biological features essential for the conservation of the ABM. The five units that we are proposing as critical habitat encompass approximately 1,298 ac (525 ha) of coastal dune habitat in Baldwin County, Alabama. Each of these units has been occupied by the species as recently as 2004. Although these units represent only a small proportion of the subspecies' historic range, they include a significant proportion of Alabama's best remaining coastal dune habitat, reflect the wide variety of habitat types utilized by the ABM, and are spread evenly throughout the historic range of the subspecies. The areas include all of the high-elevation habitats (as determined by review of LIDAR data, storm surge model estimates, and post-Hurricane Ivan measurements) crucial to the subspecies' survival during and after major hurricane events. Because short-term occupation of habitat varies in response to tropical storm activity, ABM presence will vary spatially and temporally throughout the proposed designation, and may be unevenly distributed at any given time.

When determining proposed critical habitat boundaries, we made every effort to avoid proposing the designation of developed areas such as buildings or houses, paved areas, gravel driveways, ponds, swimming pools, lawns, and other structures that lack PCEs for the ABM. When it has not been possible to map out these structures and the land upon which they are sited because of scale issues, they have been excluded by rule text. Therefore, Federal actions limited to these areas would not trigger section 7 consultations, unless they affect the species and/or PCEs in adjacent critical habitat. It is important to note that the maps provided in this

proposed rule (see "Proposed Regulation Promulgation" section) are for illustrative purposes. For the precise legal definition of critical habitat, please refer to the narrative unit descriptions in the "Proposed Regulation Promulgation" section of this rule.

#### **Special Management Considerations or Protection**

When designating critical habitat, we assess whether the areas determined to be occupied at the time of listing and containing the PCEs may require special management considerations or protections. We also assess whether areas determined to be occupied since the time of listing and containing PCEs require special management considerations or protections. As discussed in more detail in the unit descriptions below, we find that all of the areas we are proposing for designation may require special management considerations or protections due to threats to the subspecies and/or its habitat. Such management considerations and protections include management of non-native predators and competitors, management of non-native plants, and protection of beach mice and their habitat from threats by road construction, urban and commercial development, heavy machinery, and recreational activities.

#### **Proposed Critical Habitat Designation**

We are proposing five units as critical habitat for the ABM. The units described below constitute our best assessment, at this time, of the areas determined to be occupied by the ABM at the time of listing that contain one or more of the primary constituent elements and may require special management, and those additional areas that were not occupied at the time of listing, but were found to be essential for the conservation of ABM. These five units, as well as the areas proposed for exclusion below, represent our determination of those areas that contain the physical and biological features that are and those additional areas found to be essential to the conservation of the subspecies. These additional areas are essential for the conservation of the ABM for two main reasons. First, at the time of listing, beach mice were thought to be restricted

to the frontal dune habitat and researchers did not focus on scrub habitat. Consequently, occurrence information of beach mice in scrub habitat was sparse even in the relatively recent past. However, scrub habitat is now known to be invaluable to beach mice and inclusion of this habitat in critical habitat is a main stimulus of this redesignation. Second, as the coastal dune environment changes dramatically through time, so do beach mouse populations. As dunes erode or build and habitat and food resources fluctuate in response to coastal processes such as erosion and tropical storm events, beach mouse populations respond accordingly, either through short- or long-term movements, or through local extinctions. As habitat improves in the future, densities increase or beach mice recolonize the recovering areas. Because of this aspect of their biology, and the fact that so few natural areas remain but mice currently occupy these areas, these areas containing PCEs where beach mice had not been detected at the time of listing are important to the species' persistence. We have proposed only those areas that we believe to be essential for the conservation of the ABM. For these reasons listed above, we propose areas that were not known to be occupied at the time of listing, but contain one or more of the PCEs and are essential for the conservation of the beach mice.

We are proposing five areas as critical habitat for the ABM: (1) Fort Morgan State Historic Site and adjacent lands (hereafter referred to as Fort Morgan Unit), (2) lands along the right-of-way of Fort Morgan Parkway (State Highway 180), and south of the Alabama Department of Environmental Management's Coastal Construction Control line (hereafter referred to as Little Point Clear Unit), (3) high-elevation habitat in the Gulf Highlands (multifamily) area (Gulf Highlands Unit), (4) Bureau of Land Management properties and private inholdings within the Perdue Unit of the Refuge (hereafter referred to as Pine Beach), and (5) Gulf State Park Unit. Table 1 below provides the approximate area (acres/hectares) determined to meet the definition of critical habitat for the ABM.

TABLE 1.—AREAS DETERMINED TO MEET THE DEFINITION OF CRITICAL HABITAT FOR THE ALABAMA BEACH MOUSE AND THE AREA PROPOSED FOR EXCLUSION FROM THE FINAL CRITICAL HABITAT

Geographic area	Definitional areas (acres/ hectares)	Area proposed for exclusion from final designation (acres/ hectares)	Conservation plan type
The Dunes .....	15/6	15/6	HCP.
Bay to Breakers .....	3/1	3/1	HCP.
Kiva Dunes .....	50/20	50/20	HCP.
Plantation Palms .....	12/5	12/5	HCP.
The Beach Club .....	15/6	15/6	HCP.
Martinique on the Gulf .....	10/4	10/4	HCP.
Perdue Unit, Bon Secour NWR .....	1,063/430	1,063/430	CCP.
Gulf State Park .....	171/69	44/18	HCP.
49 Single Family Homes .....	17/7	17/7	HCP.
<b>Total (Baldwin County) .....</b>	<b>1356/548</b>	<b>1229/497</b>	

The approximate area encompassed within each proposed critical habitat unit is shown in Table 2.

TABLE 2.—CRITICAL HABITAT UNITS PROPOSED FOR THE ALABAMA BEACH MOUSE  
[Area estimates reflect all land within critical habitat unit boundaries. We made efforts to remove areas without PCEs]

Critical habitat unit	Federal (acres/ hectares)	State (acres/ hectares)	Local and private (acres/ hectares)	Total (acres/ hectares)
1. Fort Morgan .....	44/18	337/136	44/18	424/172
2. Little Point Clear .....	16/6	82/33	173/71	264/106
3. Gulf Highlands .....	11/4	47/19	338/137	388/157
4. Pine Beach .....	11/5	.....	21/8	32/13
5. Gulf State Park .....	.....	190/77	.....	190/77
<b>Total .....</b>	<b>82/33</b>	<b>656/265</b>	<b>576/234</b>	<b>1,298/525</b>

We present brief descriptions of all units, and reasons why they have the features that are essential for the conservation of the ABM, below. Universal Transverse Mercator (UTM) coordinates and a more precise legal description of each unit are provided in the Proposed Regulation section.

*Unit 1: Fort Morgan Unit*

Unit 1 (Map 2) consists of 424 ac (172 ha) and encompasses ABM habitat in the Fort Morgan State Historic Site and private lands to the east. It is located at the extreme western edge of the ABM range, and consists principally of habitat that was known to be occupied at the time of listing (50 FR 23872; Holliman 1983) south of State Highway 180 (hereafter referred to as Fort Morgan Parkway in the rule text), with the exception of a single line of high scrub dunes directly north of the roadway and within the historic site boundaries. The actual Fort and associated structures and developed areas that were included in the original designation are not

included in this proposed unit. The unit extends from mean high water line (MHWL) northward to the break between scrub dune habitat and either the maritime forest or developed landscape (such as grassy areas associated with Fort Morgan State Historic Site). The proposed unit is bounded to the west by Mobile Bay, and to the east by Unit 2 (western property line of the “Bay to Breakers” residential development) (see Unit 2 Description). Much of Unit 1 is existing critical habitat that was designated at the time of listing (50 FR 23872). We are proposing a minor expansion to incorporate scrub habitat. ABM habitat within The Dunes development is protected under an HCP; therefore, we propose to exclude from this Unit (see Exclusions section).

ABM occurrence in the proposed unit over time is well documented (Holliman 1983; 50 FR 23872; Rave and Holler 1992; Sneckenberger 2001) and mice have been captured here following Hurricane Ivan (Endangered Species

Consulting Services 2004a; Service 2005a). Suspected ABM tracks have been identified following Hurricanes Katrina and Rita (2005) (Service 2005a). This unit contains the features essential to the conservation of the subspecies. Some areas of the unit contain a contiguous mix of primary and secondary dunes, interdunal swales, wetlands, and scrub dunes, whereas other areas contain high-quality primary and secondary dune habitat. While no one portion of the proposed unit contains every PCE, all five PCEs are present.

Natural areas of the Fort Morgan Historic Site are owned by the State of Alabama (Alabama State Historical Commission), but are currently managed by the Refuge according to a cooperative agreement (Service 2005d) (see “Application of Section 3(5)(A) and Exclusions Under Section 4(b)(2) of the Act” section for further detail on management). Threats in this unit that may require special management considerations include human-

generated refuse and degraded habitat (from activities associated with recreational use, for example).

#### *Unit 2: Little Point Clear Unit*

Unit 2 consists of 264 ac (106 ha) and includes east-west bands of ABM habitat south of the Alabama Department of Environmental Management's Coastal Construction Control Line (CCCL) (ADEM 1995) and along the southern roadway right-of-way for Fort Morgan Parkway (see Map 3). This Unit is bounded to the west by Unit 1 and extends eastward to the western edge of the Surfside Shores subdivision (western boundary of Unit 3). The CCCL varies in width but generally extends about 300 feet (91 meters) landward of MHWL. The Fort Morgan Parkway right-of-way, which is managed by the State of Alabama (Alabama Department of Conservation and Natural Resources) extends 160 feet (49 meters) south of and parallel to the roadway centerline. Proposed critical habitat does not include the road or shoulder of the Fort Morgan Parkway. In several places along the east-west extent of these units, additional parcels, either to the south of the Fort Morgan Parkway or to the north of the CCCL, which contain the PCEs (see Primary Constituent Element section) are proposed for inclusion in the revised designation.

This unit, while often being inundated during storm surge events (Service 2004a; ENSR 2004; ACOE 2001), represents the last remaining natural habitat connections between ABM populations in and around Unit 1 and Unit 3, and provides an essential link between those populations (PCE #4). Portions of this unit south of the CCCL contain PCE #2 and some sections of the right-of-way contain PCE #3. While this area was identified as being within the range of the ABM (50 FR 23872; Holliman 1983, Dawson 1983), we have no records that ABM were present at the time of listing. However, pre-hurricane Ivan trapping has verified the presence of mice south of the CCCL (Meyers 1983; 50 FR 23872; Endangered Species Consulting Services 2004b) and along the right-of-way (Sneckenberger 2001; Farris 2003). As described above, due to life history aspects of ABM, because so few natural areas remain for ABM, and because this unit is currently occupied and contains two of the PCEs, we consider this unit essential for the conservation of the subspecies. Habitat south of the CCCL consists of primary and secondary dunes, while habitat along the right-of-way consists primarily of scrub that is often temporarily disturbed by utility line maintenance.

This frequent disturbance may benefit ABM by maintaining the habitat in an open condition.

This proposed unit is a mix of State, Federal, local, and private ownership. Threats south of the CCCL that may require special management include extensive recreational pressure and feral cats.

#### *Unit 3: Gulf Highlands Unit*

Unit 3 consists of 388 ac (157 ha) in the central portion of the Fort Morgan Peninsula. It includes portions of the Morgantown, Surfside Shores, and Cabana Beach subdivisions, as well as portions of the proposed Beach Club West/Gulf Highlands development, Bureau of Land Management properties, and some properties along the Fort Morgan Parkway right-of-way (see Map 4). It is bounded to the west by Unit 2. The main portion of the proposed unit generally stretches from MHWL landward to a natural border of wetlands to the north. This portion is bisected by ABM habitat associated with the Kiva Dunes, Plantation Palms, Beach Club, and Martinique developments and is proposed for exclusion because of its HCPs (see Exclusions section). The proposed unit also contains an eastward continuation of ABM habitat adjacent to the Fort Morgan Parkway. This northern portion of Unit 3 is bounded to the west by Unit 2 and to the east by wetlands on the Martinique property. Like the right-of-way corridor in Unit 2, it extends from the centerline of Fort Morgan Parkway 160 feet (49 meters) to the south. Unit 3 serves as an expansion of critical habitat Zone 2 that was designated at the time of listing (50 FR 23872), but did not include scrub habitat. This unit contains the features essential to the conservation of the subspecies; all five PCEs are present in varying amounts throughout this unit.

This proposed unit, combined with the neighboring Perdue Unit of the Refuge and several properties with conservation plans that are being proposed for exclusion (see Exclusions section), contains the largest assemblage of high-elevation habitat within the range of the ABM (ENSR 2004; ACOE 2001; Service 2004c). The largest tracts of contiguous habitat possessing a full gradient of ABM habitat (primary dunes landward to scrub dunes) are also found here. ABM occupancy is well documented both at the time of listing (Meyers 1983; Holliman 1983) and recently (Endangered Species Consulting Services, LLC and ENSR Corporation 2001; Farris 2003). Mice have been found here following Hurricane Ivan (Endangered Species Consulting Services 2004c, 2004d).

Threats that may require special management include habitat degradation and fragmentation, extensive recreational pressure, post storm cleanups, artificial lighting, predation, and human-generated refuse.

#### *Unit 4: Pine Beach*

This unit (see Map 5) consists of 32 ac (13 ha), including a Bureau of Land Management property and 27 private inholdings within the Perdue Unit of the Bon Secour National Wildlife Refuge, not managed under the Refuge's draft Comprehensive Conservation Plan. The primary and secondary dunes within this unit were part of "Zone 2" of the original critical habitat designation. ABM are well documented from the area both recently (Rave and Holler 1992; Swilling *et al.* 1998; Service 2003) and from the time of listing (Holliman 1983; Meyers 1983). This unit, along with adjacent Refuge lands (see Exclusions section), contains the features essential to the conservation of the ABM because of its high-elevation habitat and continuity between habitat types. It contains PCEs 2, 3, and 5, and when combined with the surrounding Refuge lands, it also includes PCEs 1 and 4. Threats that may require special management considerations on this unit may include artificial lighting from residences, human-generated refuse that may attract predators, feral cats, habitat fragmentation from the design and construction of properties (and access routes) to inholdings, and primary and secondary dunefields impacted from recent storm events.

#### *Unit 5: Gulf State Park*

Unit 5 consists of 190 ac (77 ha) of ABM habitat in Gulf State Park, immediately east of the City of Gulf Shores and west of the City of Orange Beach (see Map 6). This unit retains most critical habitat designated in the 1985 listing rule (Zone 3—all primary and secondary dunes south of State Route 182) (50 FR 23872) and adds approximately 30 ac (12 ha) of scrub habitat located directly north of S.R. 182. It extends from MHWL northward to a natural boundary consisting of brackish wetlands and maritime forest. ABM habitat that is covered under the 2004 HCP is proposed for exclusion from the designation (see Exclusions section).

This unit contains a mix of scrub and primary and secondary dune habitat, and represents the last remaining sizable block of habitat on the eastern portion of the historic range of the subspecies.

Mice were documented in the Park in the late 1960s (Linzey 1970), but were

presumed extirpated by the early 1980s (Holliman 1983; Holler and Rave 1991), because of habitat isolation combined with the effects of tropical storm, predation (primarily from feral cats), and competition with house mice. However, critical habitat designated in the Park at the time of listing was referred to as occupied in our final listing rule (50 FR 23872). Therefore, we consider this area to be occupied at the time of listing. ABM were reintroduced to the park in 1998, and subsequent trapping confirmed their presence there (Sneckenberger S., Service, personal communication, 2005; Service 2003b). This proposed unit was heavily impacted by Hurricane Ivan in 2004 (Service 2004a) and Hurricane Katrina (2005) and recent trapping has not located mice (Volkert 2005). This unit contains PCEs 2 and 3 and, therefore, possesses the habitat features essential to the conservation of the subspecies.

This proposed unit is State-owned and managed by the State Parks Division of the Alabama Department of Conservation and Natural Resources. It has pressures from heavy recreational use, and ABM habitat here has been severely impacted by recent hurricanes. Threats to ABM habitat include loss of dune topography and vegetation from habitat destruction, human-generated refuse that could attract predators, feral cats, and artificial lighting. Habitat fragmentation also threatens ABM within this unit.

### Effects of Critical Habitat Designation

#### Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as "a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to: Alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical." However, recent decisions by the 5th and 9th Circuit Courts of Appeal (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 et al.*, 245 F.3d 434, 442F (5th Cir 2001); also see discussion on Role of Critical Habitat above) have invalidated this definition. Pursuant to current national policy and the statutory provisions of the Act, destruction or

adverse modification is determined on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the PCEs to be functionally established) to serve the intended conservation role for the species.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is proposed or designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. This is a procedural requirement only. However, once proposed species becomes listed, or proposed critical habitat is designated as final, the full prohibitions of section 7(a)(2) apply to any Federal action. The primary utility of the conference procedures is to maximize the opportunity for a Federal agency to adequately consider proposed species and critical habitat and avoid potential delays in implementing their proposed action as a result of the section 7(a)(2) compliance process, should those species be listed or the critical habitat designated.

Under conference procedures, the Service may provide advisory conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The Service may conduct either informal or formal conferences. Informal conferences are typically used if the proposed action is not likely to have any adverse effects to the proposed species or proposed critical habitat. Formal conferences are typically used when the Federal agency or the Service believes the proposed action is likely to cause adverse effects to proposed species or critical habitat, inclusive of those that may cause jeopardy or adverse modification.

The results of an informal conference are typically transmitted in a conference report; while the results of a formal conference are typically transmitted in a conference opinion. Conference opinions on proposed critical habitat are typically prepared according to 50 CFR 402.14, as if the proposed critical habitat were designated. We may adopt the conference opinion as the biological

opinion when the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)). As noted above, any conservation recommendations in a conference report or opinion are strictly advisory.

If a species is listed or critical habitat is designated, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. 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. As a result of this consultation, compliance with the requirements of section 7(a)(2) will be documented through the Service's 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, but are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. "Reasonable and prudent alternatives" are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid destruction or adverse modification of 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 critical habitat is subsequently designated that may be affected and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consulting us on actions for which formal consultation has been completed, if those actions may affect

subsequently listed species or designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal activities that may affect the ABM or its designated critical habitat will require section 7 consultation under the Act. Activities on State, local, or private lands requiring a permit from a Federal agency, such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act, a section 10(a)(1)(B) permit from the Service, or some other Federal action, including funding (e.g., Federal Highway Administration or Federal Emergency Management Agency funding), will also continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal and private lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

*Application of the Jeopardy and Adverse Modification Standards for Actions Involving Effects to the Alabama Beach Mouse and Its Critical Habitat*

**Jeopardy Standard**

Prior to and following designation of critical habitat, the Service has applied an analytical framework for ABM jeopardy analyses that relies heavily on the importance of populations to the survival and recovery of the subspecies. The section 7(a)(2) analysis is focused not only on these populations but also on the habitat conditions necessary to support them.

The jeopardy analysis usually expresses the survival and recovery needs of the ABM in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, if a proposed Federal action is incompatible with the viability of a population, inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted, because of the relationship of each population to the survival and recovery of the species as a whole.

**Adverse Modification Standard**

The analytical framework described in the Director's December 9, 2004, memorandum is used to complete section 7(a)(2) analyses for Federal actions affecting ABM critical habitat. The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or

retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species. Generally, the conservation role of critical habitat units is to support viable populations.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat may also jeopardize the continued existence of the ABM. Federal activities that, when carried out, may adversely affect critical habitat for the ABM include, but are not limited to:

(1) Actions that would significantly alter dune structure or the degree of soil compaction. Such activities could include, but are not limited to, permanent conversion of ABM habitat for residential or commercial purposes, excessive foot traffic, and the use of construction, utility, or off-road vehicles in beach mouse habitat. These activities, even if temporary, could alter burrow construction, reduce the availability of potential burrow sites, and degrade or destroy beach mouse habitat.

(2) Actions that would significantly alter the natural vegetation of the coastal dune community. Such activities could include, but are not limited to, allowing non-native species to establish in the area, landscaping with grass or other non-indigenous plants, and landscaping that yields excessive leaf litter, mulch, or other foreign materials. These activities could alter beach mouse foraging activities and degrade or destroy beach mouse habitat.

(3) Actions that would significantly alter the natural predator/prey balance of the coastal dune community. Such activities could include, but are not limited to, allowing unprotected refuse in the area and allowing or encouraging feral cat communities or the temporary release of domestic cats. These activities could alter beach mouse foraging activities and the availability of foraging resources and cause appreciable mortalities.

(4) Actions that would significantly alter natural lighting. Such activities could include, but are not limited to, allowing artificial lighting that does not comply with wildlife-friendly lighting specifications. These activities could alter beach mouse foraging activities, increase predation upon beach mice, and reduce the use of otherwise suitable beach mouse habitat.

(5) Activities that eliminate or degrade movement within and among designated critical habitat units. Actions such as bulkhead, canal, ditch, and wall construction; the permanent conversion of beach mouse habitat to residential or commercial development; changing of water elevations or flooding; the removal of vegetation; and excessive artificial lighting could effectively block east-west and/or north-south corridors among various habitat types, and isolate habitat.

We consider the five critical habitat units to be currently occupied by the subspecies, based on trapping data, our 2003 habitat map, and Service trapping protocol (Service 2005c). All of the units included in this proposed designation contain the features that are essential to the conservation of the ABM or are found to be essential for the conservation of the subspecies.

*Application of Section 3(5)(A) and Exclusions Under Section 4(b)(2) of the Act*

Section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographic area occupied by the species at the time of listing on which are found those physical and biological features (i) essential to the conservation of the species and (ii) that may require special management considerations or protection. Therefore, areas within the geographical area occupied by the species at the time of listing that do not contain the features essential for the conservation of the species are not, by definition, critical habitat. Similarly, areas within the geographic area occupied by the species at the time of listing that do not require special management or protection also are not, by definition, critical habitat.

There are multiple ways to provide management for species habitat. Statutory and regulatory frameworks that exist at a local level can provide such protection and management, as can lack of pressure for change, such as areas too remote for anthropogenic disturbance. Finally, State, local, or private management plans as well as management under Federal agencies jurisdictions can provide protection and management to avoid the need for designation of critical habitat. When we consider a plan to determine its adequacy in protecting habitat, we consider whether the plan, as a whole will provide the same level of protection that designation of critical habitat would provide. The plan need not lead to exactly the same result as a designation in every individual application, as long as the protection it provides is equivalent, overall. In

making this determination, we examine whether the plan provides management, protection, or enhancement of the PCEs that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

We consider a current plan to provide adequate management or protection if it meets three criteria: (1) The plan is complete and provides a conservation benefit to the species (i.e., the plan must maintain or provide for an increase in the species' population, or the enhancement or restoration of its habitat within the area covered by the plan); (2) the plan provides assurances that the conservation management strategies and actions will be implemented (i.e., those responsible for implementing the plan are capable of accomplishing the objectives, and have an implementation schedule or adequate funding for implementing the management plan); and (3) the plan provides assurances that the conservation strategies and measures will be effective (i.e., it identifies biological goals, has provisions for reporting progress, and is of a duration sufficient to implement the plan and achieve the plan's goals and objectives).

Further, section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, 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. An area may be excluded from critical habitat if it is determined that the benefits of exclusion outweigh the benefits of specifying a particular area as critical habitat, unless the failure to designate such area as critical habitat will result in the extinction of the species.

#### *Perdue and Fort Morgan Units of the Bon Secour National Wildlife Refuge*

The Refuge finalized its Comprehensive Conservation Plan in November 2005. This document details proposed conservation actions for the Refuge over a 15-year period, and outlines three objectives (implement monitoring protocol and manage beach and scrub habitat for the ABM) and two projects (standardize surveys and manage and evaluate scrub habitat for the ABM) that specifically address the subspecies. Many other objectives (e.g.,

predator management plan) and projects (e.g., develop biological database) would also benefit ABM. The Service has a statutory mandate to manage the refuge for the conservation of listed species, and the CCP provides a detailed implementation plan.

We believe that the CCP provides a substantial conservation benefit to the subspecies, and there are reasonable assurances that it will be implemented properly and in an effective fashion within portions of the Perdue Unit of the Refuge that contains the physical and biological features essential to the conservation of the ABM. Accordingly, we believe that these units of the Refuge do not meet the definition of critical habitat under section 3(5)(A) of the Act because a secure management plan is already in place to provide for the conservation of the ABM, and no special management or protection will be required.

The Service also either owns or manages 510 acres of coastal dune habitat, most of which is occupied by ABM, within the boundaries of the Fort Morgan State Historic Site. These lands, collectively, are referred to as the Fort Morgan Unit of the Refuge, but are within the Historic Site. Of the 510 acres, approximately 480 acres are owned by the State, but are managed by the Service through a cooperative management agreement with the Alabama Historical Commission. While the CCP outlines proposed management activities within the Fort Morgan Unit, we do not know whether the cooperative management agreement will be modified or terminated in the future, and therefore, if the conservation plan outlined within the CCP will be implemented. Areas containing the PCEs within these State-owned lands and the approximately 30 acres of Federal land imbedded within them, therefore, may require special management or protection, and are being proposed for inclusion into the critical habitat designation as part of Unit 1.

#### **Habitat Conservation Plans (HCPs)**

As described above, section 4(b)(2) of the Act requires us to consider other relevant impacts, in addition to economic and national security impacts, when designating critical habitat. Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed wildlife species incidental to otherwise lawful activities. The ESA specifies that an application for an incidental take permit (ITP) must be accompanied by a habitat conservation plan and specifies the content of such a plan. The purpose of conservation plans is to describe and

ensure that the effects of the permitted action on covered species are adequately minimized and mitigated, and that the action does not appreciably reduce the survival and recovery of the species.

HCPs vary in size and may provide for incidental take coverage and conservation management for one or many federally listed species. Additionally, more than one applicant may participate in the development and implementation of an HCP. The areas occupied by, and determined to have features essential to, ABM include 56 approved HCPs that specifically address the subspecies. These include HCPs for 6 multifamily developments, one hotel and convention center complex, and 49 single family homes (see below).

The completed HCPs and the associated ITPs issued by the Service contain management measures and protections for identified areas that protect, restore, and enhance the value of these lands as habitat for ABM. These measures include explicit standards to minimize any impacts to the ABM and its habitat. In general, HCPs are designed to ensure that the value of the conservation lands are maintained, expanded, and improved for the species that they cover.

For HCPs that have been already approved, we have provided assurances to permit holders that once the protection and management required under the plans are in place and for as long as the permit holders are fulfilling their obligations under the plans, no additional mitigation in the form of land or financial compensation will be required of the permit holders and, in some cases, specified third parties.

A discussion of completed HCPs for areas that we identified as having the PCEs follows.

#### *Multifamily Developments*

HCPs for six multifamily developments along the Fort Morgan Peninsula were approved between 1994 and 1996. These developments include, from west to east, The Dunes, Bay to Breakers, Kiva Dunes, Plantation Palms, The Beach Club, and Martinique, all of which were issued 30-year ITPs by the Service. The HCPs covering the properties are almost identical and consist of setting aside primary and secondary dune habitat in perpetuity, and the construction of dune walkovers within protected areas to minimize pedestrian impact to habitat. These HCPs also require the use of native plants in landscaping, control of domestic and feral cats, interpretive signage, minimal outdoor lighting, live-trapping surveys, and annual reports.



HCPs for The Beach Club and Martinique developments also include the creation of endowment funds for use in future ABM conservation activities (e.g., research or habitat restoration). All of these properties have been developed as permitted or are nearing completion, and the areas within the properties that we have identified as containing the features that are essential to the conservation of the ABM consist of the acreage set aside as ABM conservation zones (see Table 1). Much of these conservation zones were designated as critical habitat at the time ABM was listed.

On the basis of the conservation benefits afforded the ABM from the referenced HCPs and the provisions of section 4(b)(2) of the Act, we propose to exclude the areas on these properties that contain the features that are essential to the conservation of the subspecies from proposed critical habitat. We have further determined that the exclusion of these areas from critical habitat would not result in the extinction of the ABM. The rationale for this determination is below (see Benefits of Exclusion).

#### *Gulf State Park Hotel and Convention Center Complex*

In 2004, we approved an HCP for the upcoming demolition and reconstruction of a new hotel and convention center complex south of S.R. 182 on Gulf State Park. This new complex will replace the current facilities (which were destroyed during Hurricane Ivan) and its construction will result in a net gain of 3 ac (1 ha) of ABM habitat due to improved siting and design of the structures and restoration work outlined in the HCP. The HCP for this complex, which covers both the construction and operation of the facilities, outlines an aggressive strategy for the control of roaming cats, house mice, and refuse; and includes wildlife-friendly lighting, native landscaping, and visitor outreach on the fragile coastal environment (including the ABM). The area covered by the HCP and ITP includes the 44 ac (18 ha) surrounding the complex.

On the basis of the conservation benefits afforded the ABM from this HCP and the provisions of section 4(b)(2) of the Act, we propose to exclude the 44 ac (18 ha) covered area, portions of which we have identified contain the features that are essential to the conservation of the subspecies, from proposed critical habitat. We have further determined that the exclusion of this area from critical habitat would not result in the extinction of the ABM. The

rationale for this determination is below (see Benefits of Exclusion).

#### *Single Family Homes*

Prior to August 2004, we approved HCPs for the construction of two single family homes in the Cabana Beach subdivision. Portions of both these properties have been determined to contain the features that are essential to the conservation of the ABM. In August 2004, we approved HCPs for the construction of 17 additional single family homes in occupied ABM habitat. Ten of these properties have been determined to contain features essential to the conservation of the ABM (see CRITERIA section). In September 2005, we approved HCPs for the construction of 55 more residences within occupied ABM habitat. Thirty-seven of these properties (11 of which are located within "The Dunes" development) have been determined to be essential to the ABM. The HCPs and ITPs covering all of these properties while under and after construction require a small developed footprint (typically no larger than 0.1 ac (0.004 ha)) for all structures and driveways, the construction of a dune walkover for Gulf-front lots, and the conservation of the remaining ABM habitat on the property for the duration of the ITP. The HCPs also call for wildlife-friendly lighting, landscaping with native plants, control of domestic pets (such as cats), and refuse control. The associated ITPs are valid for 50 years and ITP permit conditions are transferable if property ownership changes.

On the basis of the conservation benefits afforded the ABM from the referenced HCPs and the provisions of section 4(b)(2) of the Act, we propose to exclude ABM habitat within these 49 properties that contain features essential to ABM conservation from proposed critical habitat. We have further determined that the exclusion of these areas from critical habitat would not result in the extinction of the ABM. The rationale for this determination is below (see Benefits of Exclusion).

Following is our analysis of the benefits of including lands within approved HCPs versus excluding such lands from this critical habitat designation.

#### (1) Benefits of Inclusion

The benefits of including approved HCPs in critical habitat are normally small. The principal benefit of any designated critical habitat is that federally funded or authorized activities that may affect it require consultation under section 7 of the Act. This consultation process ensures adequate

protection against adverse modification of critical habitat. Where HCPs are in place, our experience indicates that this benefit is small or non-existent. Currently approved and permitted HCPs are typically crafted to ensure the long-term survival and conservation of covered species within the plan area. These approved HCPs, which were based upon the best available science at the time, set aside areas that contain the habitat features essential to the conservation of the subspecies, including critical habitat designated at the time of listing. Other areas within these developments no longer contain natural ABM habitat. All 56 HCPs include management measures and protections for conservation lands designed to protect, restore, and enhance their value as habitat for covered species. While the presence or absence of ABM on each of the sites has not been verified, the presence of ABM on many of the sites has been confirmed by field surveys. On the remainder of the sites, ABM have been documented on nearby or adjacent sites containing identical habitat. As such, we have a high degree of certainty that ABM cyclically utilize these sites. Surveys completed after the development of several of the sites indicates that ABM continue to utilize the undeveloped portions of the sites. Therefore, a clear Federal nexus remains on these sites. This includes the sites after development where we anticipate the continued usage by ABM.

Another possible benefit to including these lands in the proposed designation is public outreach and education. The designation of critical habitat can serve to educate landowners and the public regarding the potential conservation value of an area. This may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. However, through the HCP development process, which typically involves extensive outreach and opportunity for public review and typically results in formal protection of essential habitat areas, the public is well informed and educated about conservation value of essential habitat lands. The importance of these HCP-covered areas to the ABM is reinforced through the publication of this proposed critical habitat revision, regardless of whether the areas are included or excluded.

#### (2) Benefits of Exclusion

The benefits of excluding HCPs include relieving landowners, communities and counties of the need to consult a second time to determine if

their proposed action would constitute adverse modification. A second consultation would provide little benefit for the species since a formal consultation has already been completed on the project site to determine if the project would result in jeopardy. Additional regulatory burden that might be imposed by critical habitat beyond that found in the HCP may be perceived. This benefit to exclusion is particularly compelling because we have made the determination that once an HCP is negotiated and approved by us after public comment, activities consistent with the plan will satisfy the requirements of the Act. Imposing an additional regulatory review after HCP completion may call into question conservation efforts and partnerships in many areas, and could be viewed as a disincentive to those developing HCPs. Excluding HCPs provides us an opportunity to streamline regulatory compliance, and provides regulatory certainty for HCP participants.

Another benefit of excluding HCPs is that it would encourage the continued development of partnerships with present and future HCP participants, including States, local governments, conservation organizations, and private landowners, that together can implement conservation actions we would otherwise be unable to accomplish. By excluding areas covered by HCPs from critical habitat designation, we clearly maintain our commitments, preserve these partnerships, and, we believe, set the stage for more effective conservation actions in the future.

In addition, an HCP application must undergo consultation pursuant to section 7 of the Act. Several of these developments have already undergone a formal evaluation of the plan's potential to adversely modify critical habitat that was designated in 1985, and in all cases the designated critical habitat is part of the ABM conservation areas set aside under the HCP. In those areas where critical habitat had not been designated, we carefully analyzed the effects of the plan on essential habitat areas as part of our jeopardy analysis under section 7 of the Act, and as part of its evaluation of the adequacy of the plan under section 10 of the Act. Because virtually all HCPs are developed to minimize and mitigate the impacts of take (as defined in the Act) of covered species resulting from habitat loss within the plan area, a fundamental goal of these plans is to identify and protect habitat essential to the covered species while directing development to non-habitat or lower quality habitat areas. Thus, the plan's effectiveness in protecting essential

habitat within the plan boundaries and management challenges within the plan boundaries will have been thoroughly addressed in the HCP. Future Federal actions that may affect listed species would continue to require consultation under the "jeopardy standard" of section 7 of the Act.

Further, HCPs typically provide for greater conservation benefits to a covered species than consultations pursuant to section 7 of the Act because HCPs assure the long-term protection and management of a covered species and its habitat, and funding for such management through the standards found in the 5 Point Policy for HCPs (64 FR 35242) and the HCP No Surprises regulation (63 FR 8859). Such assurances are typically not provided by consultations under section 7 of the Act that, in contrast to HCPs, often do not commit the project proponent to long-term special management or protections. Thus, a consultation typically does not afford the lands it covers the extensive benefits an HCP provides. The development and implementation of an HCP provide other important conservation benefits, including the development of biological information to guide conservation efforts and assist in species conservation, and the creation of innovative solutions to conserve species while allowing for development.

### (3) The Benefits of Exclusion Outweigh the Benefits of Inclusion

In general, we believe that the benefits of critical habitat designation for the ABM on lands within the 56 approved HCPs that cover this subspecies are small while the benefits of excluding these lands from designation of critical habitat are substantial. After weighing the minor benefits of including these lands against the much greater benefits derived from exclusion, including encouraging the pursuit of additional conservation partnerships, we are excluding lands determined to contain features essential to ABM conservation within the 56 developments covered by approved and legally operative HCPs from the proposed revised critical habitat.

We believe that these HCPs and their associated ITPs adequately protect essential ABM habitat features within their boundaries and provide appropriate management to maintain and enhance the long-term value of this habitat. The education benefits of critical habitat designation have been achieved through the public outreach, and notice and comment procedures required prior to approval of these plans, and through their identification

in this critical habitat revision. For these reasons we find that designation of critical habitat has little benefit in areas covered by these HCPs and that such benefits are outweighed by the benefits of maintaining proactive partnerships with plan participants and encouraging additional conservation partnerships that will result from exclusion of critical habitat in these plan areas. We also find that the exclusion of these lands from proposed critical habitat will not result in the extinction of the ABM, or hinder its recovery because their HCPs have already been evaluated under section 7 of the Act to ensure that their implementation will not jeopardize the continued existence of the subspecies.

### Economic Analysis

An analysis of the economic impacts of proposing critical habitat for the Alabama beach mouse is being prepared. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at <http://www.fws.gov/daphne>, or by contacting the Daphne Ecological Services Field Office directly (see **ADDRESSES** section). For further explanation, see the "Regulatory Flexibility Act" and "Regulatory Planning and Review" discussions below.

### Peer Review

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the **Federal Register**. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat.

We will consider all comments and information received during the comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal.

### Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests for public hearings

must be made in writing at least 15 days prior to the close of the public comment period. We intend to schedule public hearings once the draft economic analysis is available such that we can take public comment on the proposed designation and economic analysis simultaneously. However, we can schedule public hearings on this proposal prior to that time, if any are requested, and announce the dates, times, and places of those hearings in the **Federal Register** and local newspapers at least 15 days prior to the first hearing.

#### Clarity of the Rule

Executive Order 12866 requires each agency to write regulations and notices that are easy to understand. We invite your comments on how to make this proposed rule easier to understand, including answers to questions such as the following: (1) Are the requirements in the proposed rule clearly stated? (2) Does the proposed rule contain technical jargon that interferes with the clarity? (3) Does the format of the proposed rule (grouping and order of the sections, use of headings, paragraphing, and so forth) aid or reduce its clarity? (4) Is the description of the notice in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposed rule? (5) What else could we do to make this proposed rule easier to understand?

Send a copy of any comments on how we could make this proposed rule easier to understand to: Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW., Washington, DC 20240. You may e-mail your comments to this address: [Exsec@ios.doi.gov](mailto:Exsec@ios.doi.gov).

#### Required Determinations

##### *Regulatory Planning and Review*

In accordance with Executive Order 12866, this document is a significant rule in that it may raise novel legal and policy issues, but it is not anticipated to have an annual effect on the economy of \$100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule. We are preparing a draft economic analysis of this proposed action, which will be available for public comment, to determine the economic consequences of designating the specific area as critical habitat. This economic analysis also will be used to determine compliance with Executive Order 12866, Regulatory Flexibility Act, Small

Business Regulatory Enforcement Fairness Act, and Executive Order 12630.

Within these areas, the types of Federal actions or authorized activities that we have identified as potential concerns are listed above in the section on Section 7 Consultation. The availability of the draft economic analysis will be announced in the **Federal Register** and in local newspapers so that it is available for public review and comments. The draft economic analysis will be available from the Internet Web site at <http://www.fws.gov/daphne/> or by contacting the Daphne Fish and Wildlife Field Office directly (see **ADDRESSES** section). *Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Our assessment of economic effect will be completed prior to final rulemaking based upon review of the draft economic analysis prepared pursuant to section 4(b)(2) of the ESA and E.O. 12866. This analysis is for the purposes of compliance with the Regulatory Flexibility Act and does not reflect our position on the type of economic analysis required by *New Mexico Cattle Growers Assn. v. U.S. Fish & Wildlife Service* 248 F.3d 1277 (10th Cir. 2001).

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), 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 Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, the Service lacks the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, the RFA finding is deferred until completion of the draft economic analysis prepared pursuant to section 4(b)(2) of the ESA and E.O. 12866. This draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft

economic analysis, the Service will publish a notice of availability of the draft economic analysis of the proposed designation and reopen the public comment period for the proposed designation. The Service will include with the notice of availability, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination. The Service has concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that the Service makes a sufficiently informed determination based on adequate economic information and provides the necessary opportunity for public comment.

##### *Executive Order 13211*

On May 18, 2001, the President issued an Executive Order (E.O. 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This proposed rule to designate critical habitat for the ABM is not a significant regulatory action under Executive Order 12866, and it 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), the Service makes the following findings:

(a) 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, 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; AFDC 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 on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments due to current public knowledge of the species' protection, the prohibition against take of the species both within and outside of the designated areas, and the fact that critical habitat provides no incremental restrictions, we do not anticipate that this rule will significantly or uniquely affect small governments. As such, Small Government Agency Plan is not required. We will, however, further evaluate this issue as we conduct our

economic analysis and revise this assessment if appropriate.

#### *Federalism*

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with DOI and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Alabama. The designation of critical habitat in areas currently occupied by the ABM imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the survival of the species are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

#### *Civil Justice Reform*

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the ABM.

#### *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. 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*

It is our position that, outside the Tenth Circuit, we do not need to

prepare environmental analyses as defined by the NEPA in connection with designating critical habitat under the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This assertion was upheld in the courts of the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. Ore. 1995), cert. denied 116 S. Ct. 698 (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, and the Department of 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. We have determined that there are no tribal lands with features essential for the conservation of the ABM. Therefore, critical habitat for the subspecies has not been designated on Tribal lands.

#### **References Cited**

A complete list of all references cited in this rulemaking is available upon request from the Acting Field Supervisor, Daphne Fish and Wildlife Field Office (see **ADDRESSES** section).

#### **Author**

The primary author of this package is the Daphne Fish and Wildlife Office (see **ADDRESSES** section).

#### **List of Subjects in 50 CFR Part 17**

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

#### **Proposed Regulation Promulgation**

Accordingly, we propose to 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; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. In § 17.95(a), revise the entry for "Alabama Beach Mouse (*Peromyscus polionotus ammobates*)" under "MAMMALS" to read as follows:

#### **§ 17.95 Critical habitat—fish and wildlife.**

\* \* \* \* \*

## (a) Mammals

\* \* \* \* \*

Alabama Beach Mouse (*Peromyscus polionotus ammobates*)

(1) Critical habitat units are depicted for Baldwin County, Alabama, on the maps below.

(2) The primary constituent elements of critical habitat for the Alabama Beach Mouse are the habitat components that provide:

(i) A contiguous mosaic of primary, secondary, and scrub vegetation and dune structure, with a balanced level of competition and predation and few or no competitive or predaceous nonnative species present, that collectively provides foraging opportunities, cover, and burrow sites.

(ii) Primary and secondary dunes, generally dominated by sea oats (*Uniola*

*paniculata*), that despite occasional temporary impacts and reconfiguration from tropical storms and hurricanes, provide abundant food resources, burrow sites, and protection from predators.

(iii) Scrub dunes, generally dominated by scrub oaks (*Quercus* spp.), that provide food resources and burrow sites, and provide elevated refugia during and after intense flooding due to rainfall and/or hurricane-induced storm surge.

(iv) Functional, unobstructed habitat connections that facilitate genetic exchange, dispersal, natural exploratory movements, and recolonization of locally extirpated areas.

(v) A natural light regime within the coastal dune ecosystem, compatible with the nocturnal activity of beach

mice, necessary for normal behavior, growth, and viability of all life stages.

(3) Critical habitat does not include manmade structures existing on the effective date of this rule and not containing one or more of the primary constituent elements, such as buildings, driveways, lawns, swimming pools, and roads, and the land on which such structures are located.

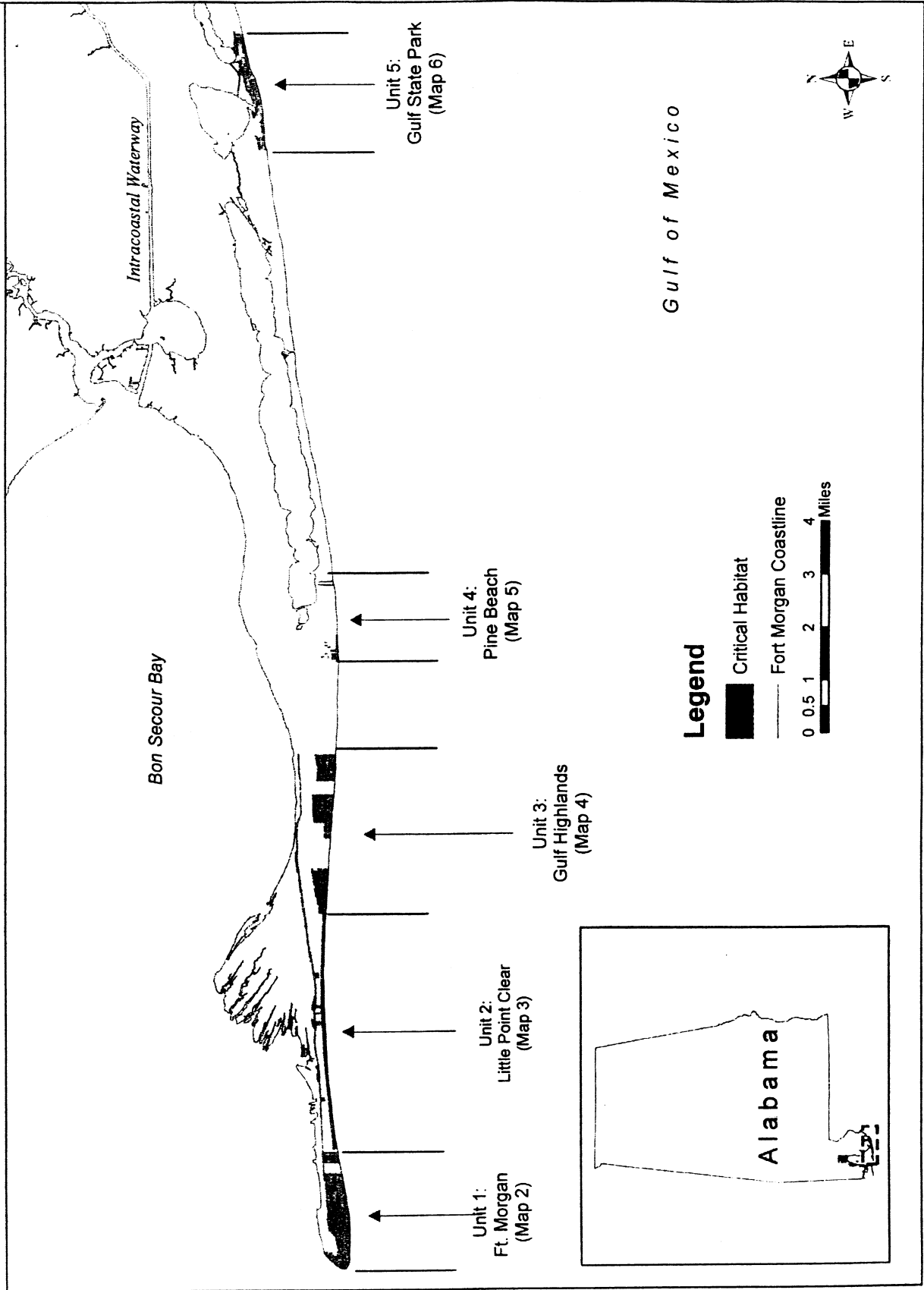
**Critical Habitat Map Units**

(4) Data layers defining map units were created by delineating habitats that contained one or more of the PCEs defined in paragraph (2) of this section, over 2001 Baldwin County, Alabama, color photography (UTM 16, NAD 83).

(5) **Note:** Map 1 (index map) follows.

**BILLING CODE 4310-55-P**

**Map 1: Index of Proposed Critical Habitat Units for the Alabama Beach Mouse**



(6) Unit 1: Fort Morgan, Baldwin County, Alabama.

(i) *General Description*: Unit 1 consists of 424ac (172 ha) at the extreme western tip of the Fort Morgan Peninsula in Baldwin County, Alabama. This unit encompasses essential features of beach mouse habitat within the boundary of the Fort Morgan State Historic Site and adjacent properties west of the Bay to Breakers development. The southern and western extents are the mean high water level (MHWL). The unit extends northward to

either the seaward extent of maritime forest, developed features associated with the Fort Morgan State Historic Site, or State Highway 180 (here after referred to as Fort Morgan Parkway).

(ii) *Coordinates*: From the Fort Morgan and Saint Andrews Bay USGS 1:24,000 quadrangle maps, Alabama, land bounded by the following UTM 16 NAD 83 coordinates (E,N):

401473.62, 3344763.21; 401547.57, 3344692.62; 401513.96, 3344669.09; 401503.87, 3344514.47; 401369.42,

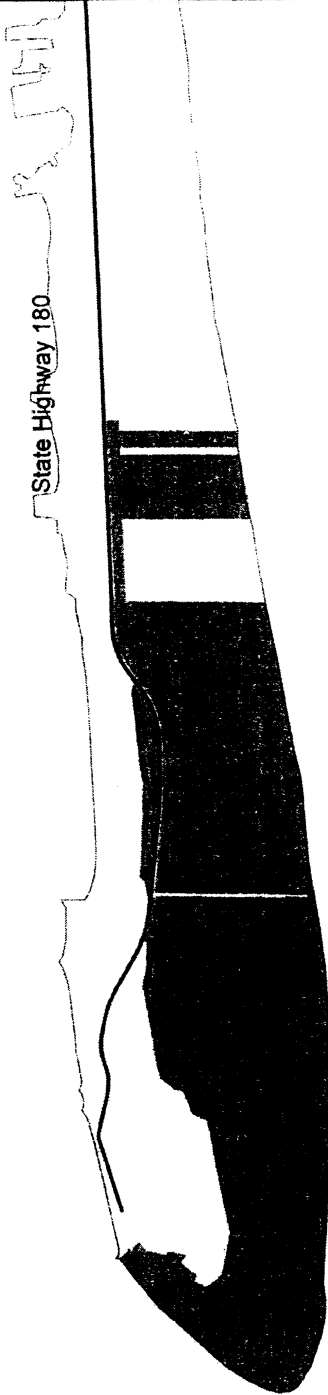
3344440.53; 401577.82, 3344356.49; 402008.06, 3344443.89; 402169.41, 3344622.04; 402525.70, 3344682.54; 403820.62, 3344782.93; 404628.95, 3344823.00; 404623.54, 3344330.64; 404288.09, 3344287.36; 404288.09, 3344758.07; 403995.92, 3344747.25; 403995.92, 3344233.25; 403292.55, 3344087.17; 402583.77, 3343995.19; 401269.00, 3343995.19; 400971.42, 3344125.04; 400976.83, 3344206.20; 401301.47, 3344628.22

(iii) **Note**: Unit 1 (Map 2) follows.

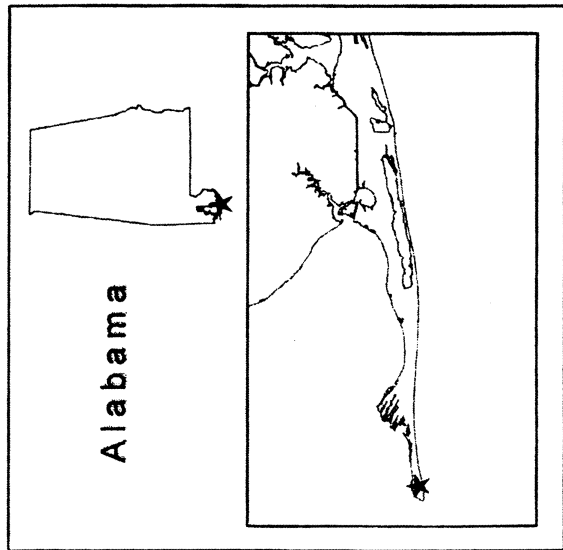


**Map 2. Unit 1: Fort Morgan, Baldwin County, Alabama**

Mobile Bay






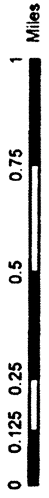
Alabama



Gulf of Mexico

**Legend**

-  Critical Habitat
-  STATE HWY 180
-  Fort Morgan Coastline



(7) Unit 2: Little Point Clear, Baldwin County, Alabama.

(i) *General Description*: Unit 2 consists of 264 acres (106 ha) on the Fort Morgan Peninsula in Baldwin County, Alabama. This unit encompasses essential features of Alabama beach mouse habitat north of the mean high water line (MHWL) and south of the Alabama Department of Environmental Management Coastal Construction Control Line (as defined in Alabama Administrative Code of Regulations 335-8-2-0.8) from the eastern property boundary of Bay to Breakers eastward to the western boundary of the Surfside Shores subdivision. This unit also includes essential features of Alabama beach mouse habitat 160 feet south of the centerline of Fort Morgan Parkway, from the eastern boundary of Bay to Breakers east to the western boundary of the Surfside Shores subdivision, and associated areas as depicted in Map 3 and the following coordinates.

(ii) *Coordinates*: From the Saint Andrews Bay USGS 1:24,000 quadrangle map, Alabama, land

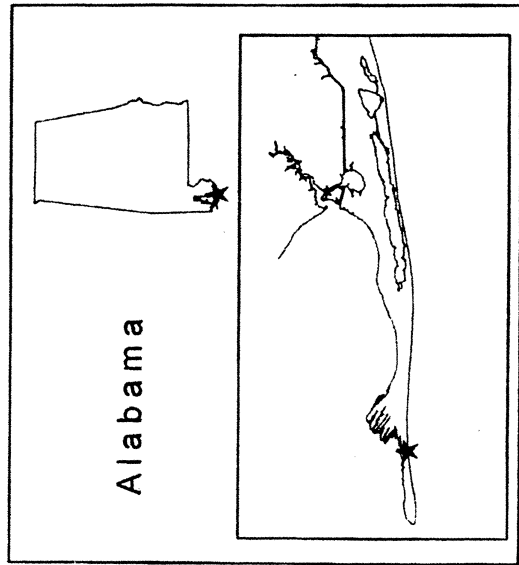
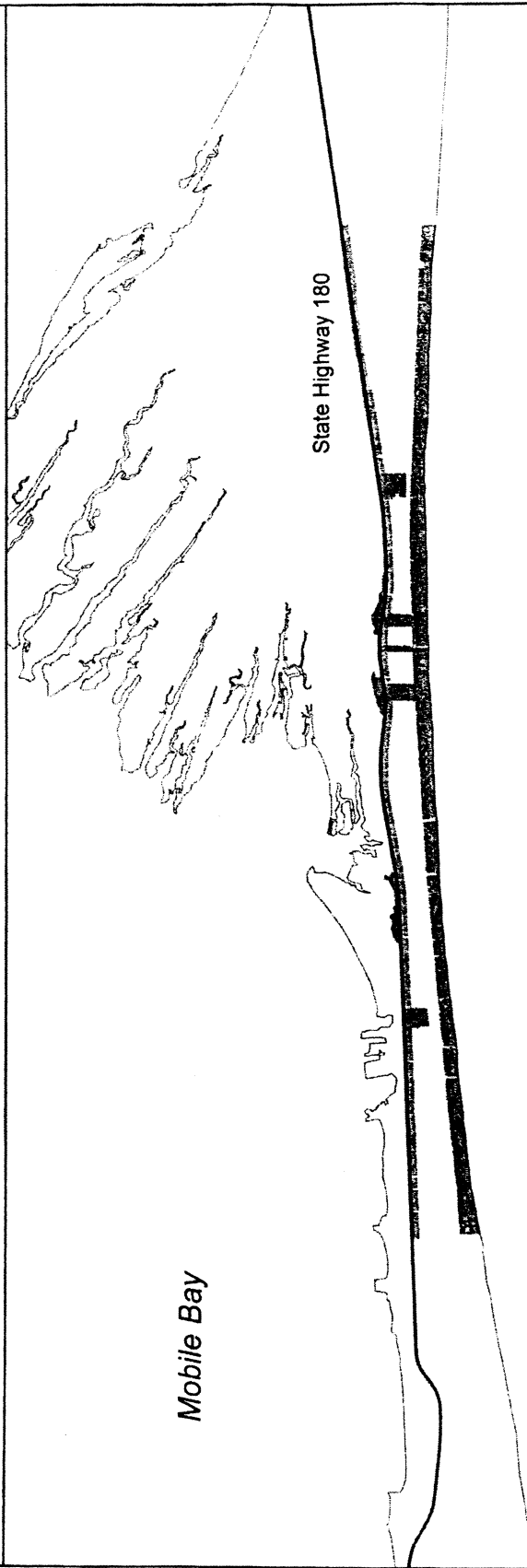
bounded by the following UTM 16 NAD 83 coordinates (E,N):

408673.97, 3345088.73; 408690.96, 3345050.98; 408964.63, 3345069.85; 408992.95, 3345115.15; 409098.64, 3345124.59; 409260.96, 3345071.74; 409306.26, 3345047.20; 409421.39, 3345039.65; 409421.39, 3345018.89; 409839.57, 3345038.68; 410450.38, 3345133.36; 410638.20, 3345180.70; 411632.04, 3345331.96; 411819.06, 3345348.96; 411819.06, 3345276.71; 411455.65, 3345227.83; 411423.77, 3345234.20; 411115.62, 3345195.95; 410735.21, 3345138.57; 410735.21, 3345117.32; 410129.52, 3345030.18; 404002.05, 3344787.64; 405929.15, 3344870.87; 406790.26, 3344915.69; 406790.26, 3344944.50; 406889.49, 3344986.11; 406915.10, 3344986.11; 406947.11, 3344973.31; 406972.72, 3344998.92; 406998.33, 3344960.50; 407039.95, 3344973.31; 407065.56, 3344950.90; 407148.55, 3344960.50; 407232.02, 3345008.52; 407238.42, 3345034.13; 407289.64, 3344954.10; 407918.85, 3345054.48; 408411.28, 3345026.14; 408414.83, 3345068.65; 408687.61, 3345125.34; 408723.04, 3345107.62; 406397.69, 3344654.51;

407290.11, 3344737.53; 408502.15, 3344816.39; 408502.15, 3344974.12; 408369.32, 3344978.29; 408074.61, 3345003.18; 407842.17, 3344994.88; 407194.65, 3344878.65; 406327.13, 3344837.15; 406318.83, 3344720.92; 406181.85, 3344716.77; 406165.25, 3344837.15; 404625.30, 3344770.73; 408639.12, 3344982.42; 408850.81, 3345011.48, 408850.81, 3344837.15; 408626.67, 3344828.84; 408904.77, 3345015.63; 409021.00, 3345003.18; 409033.45, 3344837.15; 408896.47, 3344841.30; 410127.40, 3344881.42; 409955.26, 3344885.67; 409942.50, 3345003.19; 409321.94, 3344964.94; 409122.17, 3344994.69; 409122.17, 3344839.55; 409917.00, 3344856.55; 411885.04, 3344791.03; 411876.74, 3344679.42; 411303.93, 3344704.32; 410054.54, 3344754.13; 410029.64, 3344741.68; 409992.28, 3344745.83; 409963.23, 3344758.28; 408879.87, 3344720.92; 407663.69, 3344658.66; 407157.29, 3344642.06; 406011.67, 3344509.23; 405044.53, 3344417.91; 404700.02, 3344343.20; 404712.47, 3344496.78




(iii) **Note**: Unit 2 (Map 3) follows.

**Map 3. Unit 2: Little Point Clear, Baldwin County, Alabama**



*Gulf of Mexico*

**Legend**

-  Critical Habitat
  -  STATE HWY 180
  -  Fort Morgan Coastline
- 0 0.15 0.3 0.6 0.9 1.2 Miles



(8) Unit 3: Gulf Highlands, Baldwin County, Alabama.

(i) *General Description*: Unit 3 consists of 388 acres (157 ha) on the Fort Morgan Peninsula in Baldwin County, Alabama. This unit encompasses essential features of Alabama beach mouse habitat north of the mean high water line (MHWL) to the seaward extent of interdunal wetlands as depicted in Map 4 and outlined in the following coordinates. This unit also includes essential features of Alabama beach mouse habitat 160 feet south of the centerline of Fort Morgan Parkway. Unit 3 is bounded to the west by the eastern property line of the Morgantown subdivision and to the east by the western property line of Martinique on the Gulf.

(ii) *Coordinates*: From the Pine Beach and Saint Andrews Bay USGS 1:24,000

quadrangle maps, Alabama, land bounded by the following UTM 16 NAD 83 coordinates (E,N):

Surfside Shores—

411884.85, 3344677.70; 411900.69, 3344899.40; 412122.39, 3344896.76; 412230.61, 3344952.19; 412407.44, 3344970.66; 412407.44, 3344997.06; 413286.34, 3345139.58; 413283.70, 3344598.52

Gulf Highlands—

414393.00, 3344536.62; 414393.00, 3344732.11; 414676.12, 3344736.60; 414671.63, 3345057.92; 415538.97, 3345096.12; 415529.98, 3344440.00

Gulf Shores Plantation—

414204.25, 3344552.35; 414204.25, 3344725.37; 414343.57, 3344754.58; 414341.32, 3344543.36

Cabana Beach—

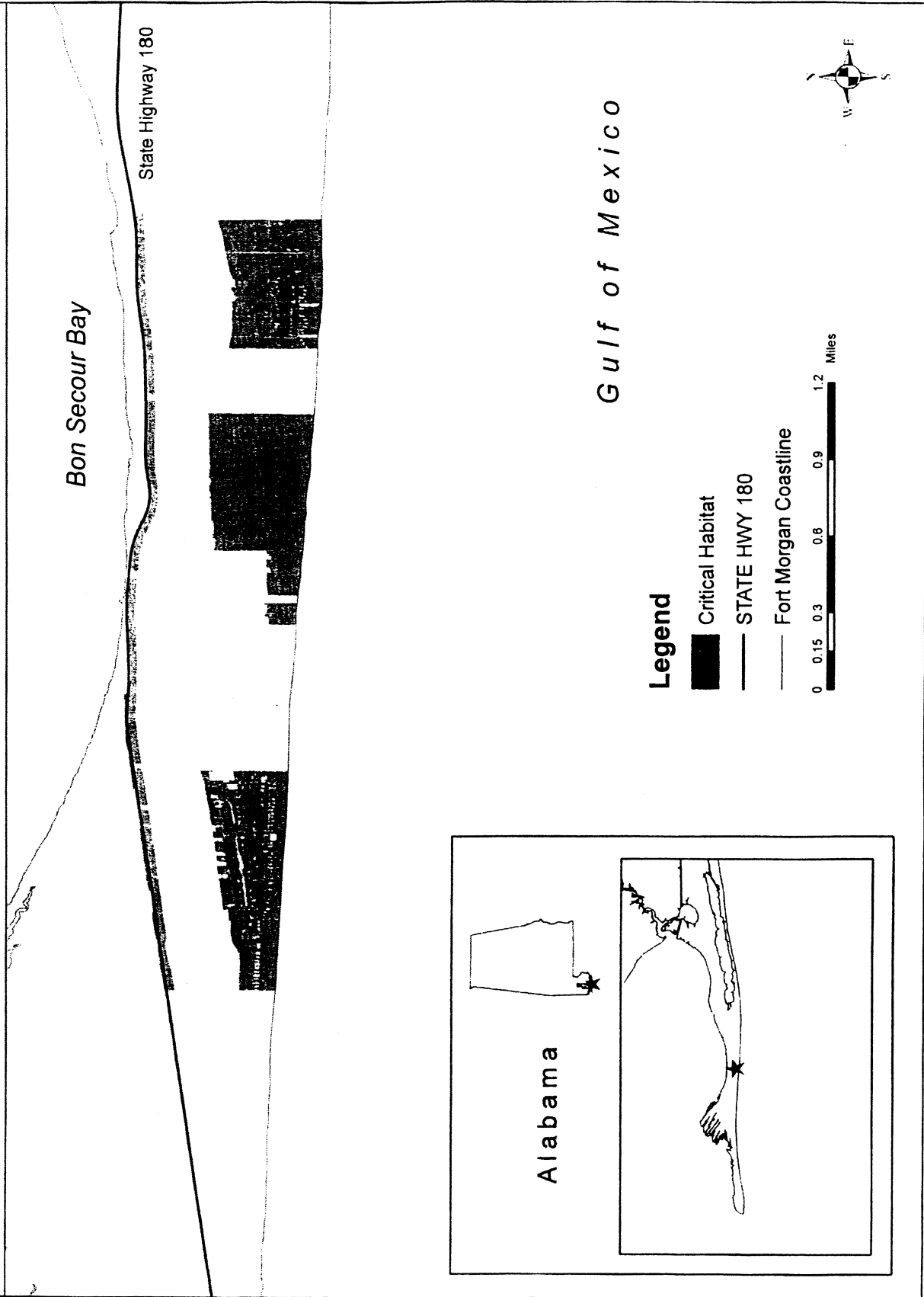
415938.37, 3344420.63; 415938.37, 3344937.42; 416333.53, 3344954.65; 416753.99, 3345042.26; 416756.08, 3344395.60

ROW—

411829.54, 3345348.68; 413472.87, 3345602.80; 413767.66, 3345609.58; 413781.21, 3345585.86; 414496.15, 3345582.47; 414760.44, 3345545.20; 414973.90, 3345460.49; 415278.85, 3345487.60; 416762.94, 3345548.59; 416796.82, 3345490.99; 416224.19, 3345470.66; 415654.96, 3345426.61; 414973.90, 3345402.89; 414533.42, 3345521.48; 413621.96, 3345538.42; 411836.31, 3345284.30

(iii) **Note**: Unit 3 (Map 4) follows.

### Map 4. Unit 3: Gulf Highlands, Baldwin County, Alabama



(9) Unit 4: Pine Beach, Baldwin County, Alabama.

(i) *General Description*: Unit 4 consists of 32 acres (13 ha) on 27 inholdings within the Perdue Unit of the Bon Secour National Wildlife Refuge as depicted in Map 5 and described in the following UTM coordinates.

(ii) *Coordinates*: From the Pine Beach USGS 1:24,000 quadrangle map, Alabama, land bounded by the following UTM 16 NAD 83 coordinates (E,N):

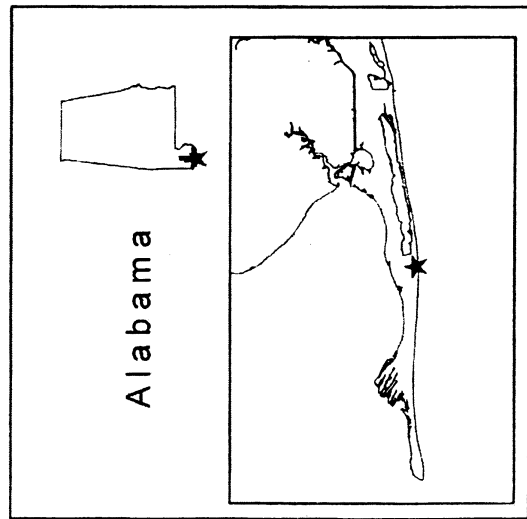
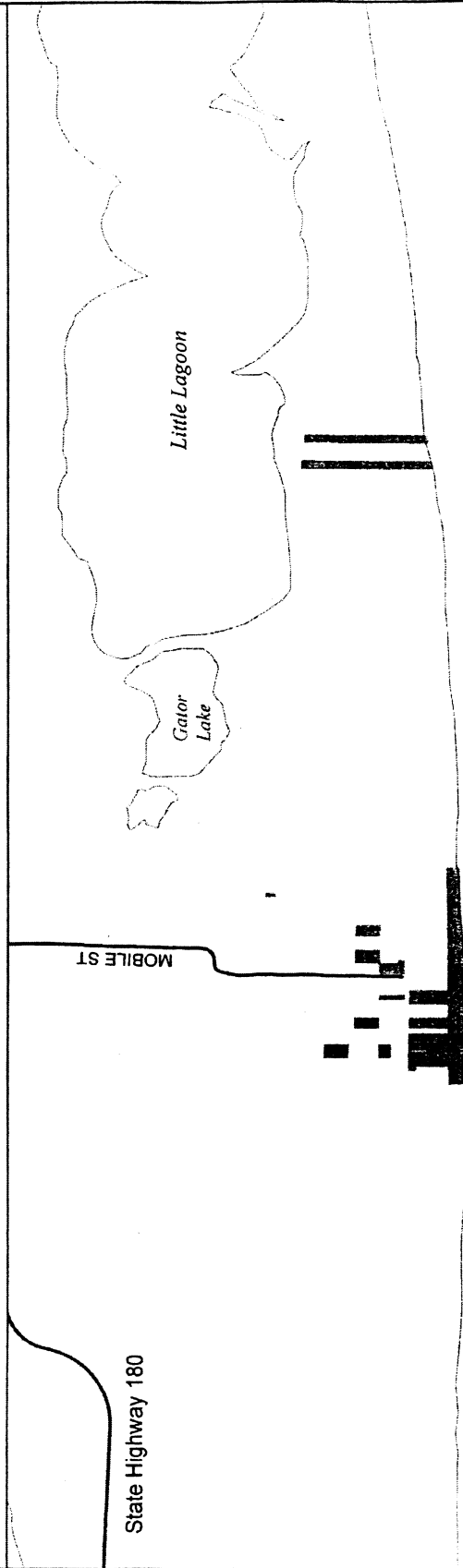
421996.98, 33444458.27; 419890.08, 3344529.29; 4199446.90, 3344526.92; 419946.90, 3344389.62; 420406.15, 3344394.35; 420401.42, 3344342.27;

419587.07, 3344320.96; 419589.44, 3344384.88; 419658.09, 3344384.88; 419655.72, 3344503.25; 419636.78, 3344503.25; 419639.15, 3344534.02; 419783.19, 3344531.65; 419783.55, 3344384.88; 419803.49, 3344384.88; 421902.28, 3344929.36; 421933.43, 3344929.36; 421930.69, 3344448.80; 421895.18, 3344446.43; 421999.34, 3344917.52; 422030.12, 3344917.52; 422030.12, 3344465.37; 419800.13, 3344730.51; 419842.74, 3344730.51; 419842.74, 3344635.81; 419797.76, 3344640.55; 419688.86, 3344841.77; 419740.94, 3344841.77; 419740.94, 3344751.81; 419688.86, 3344749.44; 419688.86, 3344645.28; 419743.31,

3344642.92; 419740.94, 3344593.20; 419688.86, 3344595.57; 420294.50, 3345060.66; 420306.84, 3345060.44; 420306.62, 3345022.12; 420294.28, 3345022.34; 420148.12, 3344725.77; 420190.73, 3344725.77; 420188.36, 3344633.45; 420150.49, 3344633.45; 420046.32, 3344728.14; 420098.40, 3344728.14; 420098.40, 3344635.81; 420046.32, 3344635.81; 420046.32, 3344567.16; 420058.16, 3344567.16; 420058.16, 3344545.86; 420003.71, 3344545.86; 420003.71, 3344638.18; 419906.65, 3344638.18; 419927.96, 3344638.18; 419927.96, 3344545.86; 419906.65, 3344548.22





(iii) **Note**: Unit 4 (Map 5) follows.

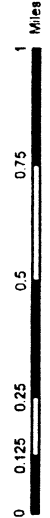
**Map 5. Unit 4: Pine Beach, Baldwin County, Alabama**



*Gulf of Mexico*

**Legend**

-  Critical Habitat
-  Fort Morgan Coastline
-  STATE HWY 180
-  MOBILE ST





(10) Unit 5: Gulf State Park, Baldwin County, Alabama.

(i) *General Description*: Unit 5 consists of 190 ac (77 ha) in Gulf State Park east of the City of Gulf Shores in Baldwin County, Alabama. This unit encompasses essential features of Alabama beach mouse habitat north of the mean high water line (MHWL) to the seaward extent of either coastal wetlands, maritime forest, or Alabama beach mouse habitat managed under the 2004 Gulf State Park habitat conservation plan. Exact boundaries are

depicted in Map 6 and displayed in the following coordinates.

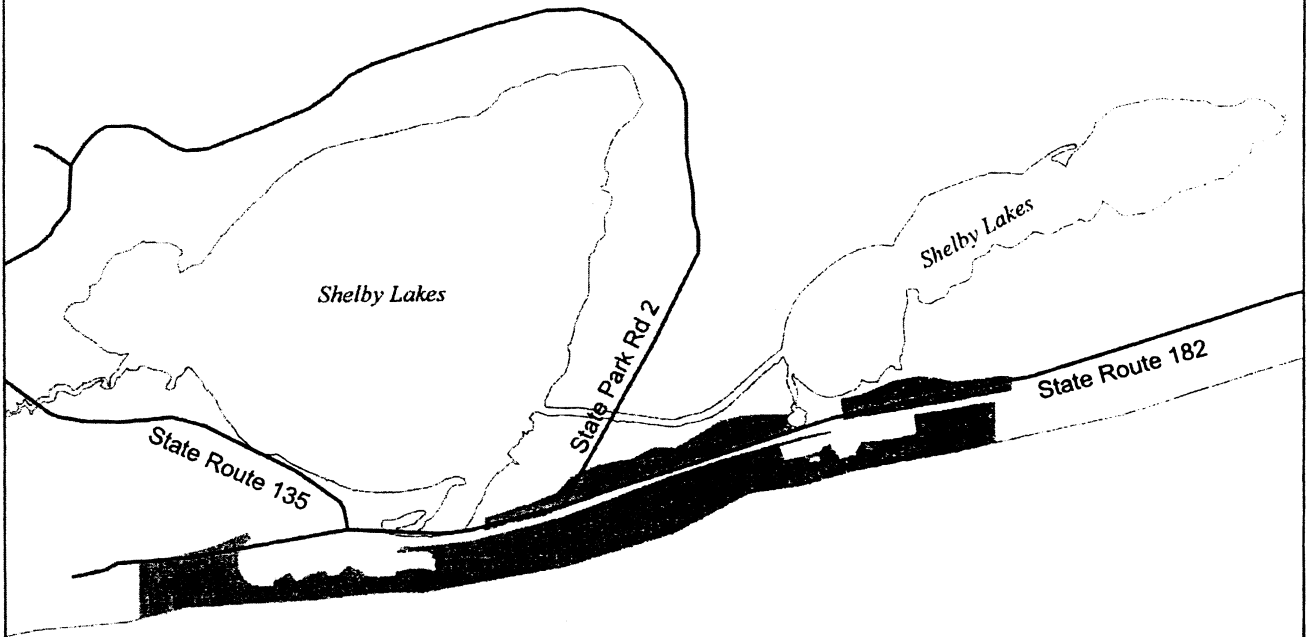
(ii) *Coordinates*: From the Gulf Shores USGS 1:24,000 quadrangle map, Alabama, land bounded by the following UTM 16 NAD 83 coordinates (E,N):

438247.09, 3347462.61; 438384.26, 3347485.47; 438504.29, 3347456.89; 438738.63, 3347479.75; 438738.63, 3347411.17; 438681.48, 3347405.45; 438675.76, 3347193.97; 437681.24, 3346988.21; 436938.21, 3346702.43; 436349.50, 3346599.55; 435377.85, 3346548.11; 435160.66, 3346490.95;

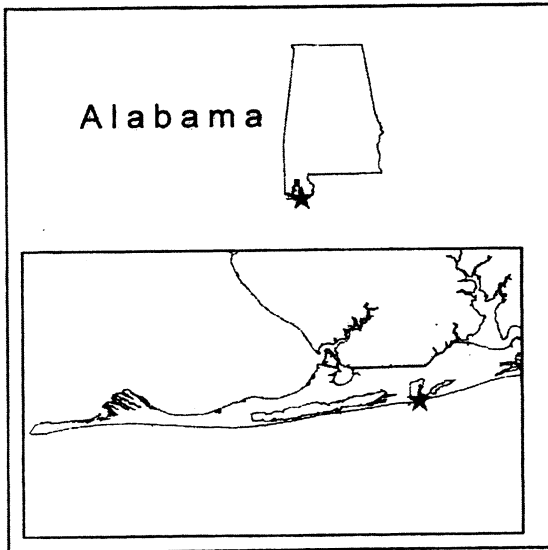
435166.37, 3346736.72; 435606.47, 3346856.75; 435623.62, 3346833.89; 435572.18, 3346731.01; 435629.34, 3346645.27; 435766.51, 3346696.71; 436018.00, 3346713.86; 436360.94, 3346702.43; 436349.50, 3346765.30; 436218.05, 3346765.30; 436212.33, 3346799.60; 436572.41, 3346828.17; 436572.41, 3346913.91; 436881.06, 3347033.94; 436909.64, 3347068.23; 437612.66, 3347325.43; 437818.42, 3347319.72; 437829.85, 3347251.13; 438035.61, 3347308.29; 438041.33, 3347394.02

(iii) **Note**: Unit 5 (Map 6) follows.




### Map 6. Unit 5: Gulf State Park, Baldwin County, Alabama



*Gulf of Mexico*



#### Legend

-  Critical Habitat
-  Fort Morgan Coastline
-  Roads

0 0.125 0.25 0.5 0.75 1 Miles



\* \* \* \* \*

Dated: January 18, 2006.

**Paul Hoffman,**

*Acting Assistant Secretary for Fish and  
Wildlife and Parks.*

[FR Doc. 06-688 Filed 1-31-06; 8:45 am]

**BILLING CODE 4310-55-C**