

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

RIN 1018-AU79

**Endangered and Threatened Wildlife and Plants; Critical Habitat Designation for the Cape Sable Seaside Sparrow****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 Cape Sable seaside sparrow (*Ammodramus maritimus mirabilis*) under the Endangered Species Act of 1973, as amended (Act). In total, approximately 156,350 acres (ac) (63,273 hectares (ha)) fall within the boundaries of the proposed critical habitat designation. The proposed critical habitat is located in Miami-Dade and Monroe counties, Florida.

**DATES:** We will accept comments from all interested parties until January 2, 2007. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by December 15, 2006.

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

1. You may submit written comments and information by mail or hand-delivery to Tylan Dean, U.S. Fish and Wildlife Service, South Florida Ecological Services Office, 1339 20th Street, Vero Beach, Florida 32960.

2. You may send comments by electronic mail (e-mail) to [Tylan\\_Dean@fws.gov](mailto:Tylan_Dean@fws.gov). Please see the Public Comments Solicited section below for file format and other information about electronic filing.

3. You may fax your comments to 772-562-4288.

4. You may submit comments via the 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 South Florida Ecological Services Office, 1339 20th Street, Vero Beach, Florida (telephone 772-562-3909).

**FOR FURTHER INFORMATION CONTACT:** Tylan Dean, South Florida Ecological

Services Office (*see ADDRESSES*); telephone 772-562-3909; facsimile 772-562-4288. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339, 7 days a week and 24 hours a day.

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

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought 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 due to designation;

(2) Specific information on the amount and distribution of Cape Sable seaside sparrow habitat, including areas occupied by Cape Sable seaside sparrows at the time of listing and containing 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; and

(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.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods (*see ADDRESSES*). Please submit electronic comments to [tylan\\_dean@fws.gov](mailto:tylan_dean@fws.gov) in ASCII file format and avoid the use of special characters or any form of encryption. Please also include "Attn: Cape Sable seaside sparrow" 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 message, contact us directly by calling our South

Florida Ecological Services Office at 772-562-3909.

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 names and home addresses, *etc.*, but if you wish us to consider withholding this information, you must state this prominently at the beginning of your comments. In addition, you must present rationale for withholding this information. This rationale must demonstrate that disclosure would constitute a clearly unwarranted invasion of privacy. Unsupported assertions will not meet this burden. In the absence of exceptional, documentable circumstances, this information will be released. We will always make submissions from organizations or businesses, and from individuals identifying themselves as representatives of or officials of organizations or businesses, available for public inspection in their entirety.

**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 the Act's section 4(b)(2), 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 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 475 species, or 36 percent of the 1,311 listed species in the United States under the jurisdiction of the Service, have designated critical habitat. We address the habitat needs of all 1,311 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. 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 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 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. 4321 *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 topics directly relevant to the designation of critical habitat in this proposed rule. Additional topics may be found under the "Primary Constituent Elements" discussion. For more information on the Cape Sable seaside sparrow, including characteristics and life history, refer to the South Florida Multi-Species Recovery Plan, available at the South Florida Ecological Services Web site <http://www.fws.gov/verobeach>.

The Cape Sable seaside sparrow is one of eight extant subspecies of seaside sparrow. Its distribution is limited to the short-hydroperiod wetlands at the downstream end of the greater Everglades system on the southern tip of mainland Florida. Unlike most other subspecies of seaside sparrow, which occupy primarily brackish tidal systems (Post and Greenlaw 1994, p. 4), the Cape Sable seaside sparrow currently occurs primarily in the short-hydroperiod freshwater wet prairies, also referred to as marl prairies, though it still occupies brackish marshes in some areas.

The Cape Sable seaside sparrow is generally sedentary, secretive, and non-migratory, and it occupies the marl prairies of southern Florida year-round. During the breeding season (March to August), male sparrows establish and defend territories that are variable in size, with average sizes ranging from 2.2 to 8.9 ac (0.9 to 3.6 ha) within different sites and years (Werner and Woolfenden 1983, p. 67; Pimm *et al.* 2002, p. 18). Sparrows are monogamous (Post and Greenlaw 1994, p. 10), with a single female occurring within a male's breeding territory. Throughout the breeding season, the majority of a sparrow pair's activities occur within this territory, including breeding, feeding, and sheltering. Outside of the breeding season, sparrows generally remain sedentary in the same general vicinity of their breeding territories, but occupy a larger area than the breeding season territory. Average non-breeding season home range size was approximately 42.1 ac (17.1 ha) and ranged from 14.1 to 137.1 ac (5.7 to 55.5 ha) (Dean and Morrison 2001, p. 36). Some individuals make exploratory movements away from their territories and may occasionally relocate their territories and home ranges before again resuming a sedentary movement pattern (Dean and Morrison 2001, p. 36).

Sparrows are generally short-lived, with an average individual annual survival rate of 66 percent (Lockwood *et al.* 2001, p. 278). The average lifespan is probably 2 to 3 years. Consequently, a sparrow population requires favorable breeding conditions in most years to be self-sustaining and cannot persist under poor conditions for extended periods (Lockwood *et al.* 1997, p. 729; Lockwood *et al.* 2001, p. 281; Pimm *et al.* 2002, p. 74).

Sparrows generally begin nesting in early March (Lockwood *et al.* 2001, p. 278), but they may begin territorial behavior, courtship, and nest-building in late February (Werner and Woolfenden 1983, p. 64; Lockwood *et al.* 1997, p. 722). This timing coincides with the dry season, and most areas

within the marl prairies are either dry or only shallowly inundated at the beginning of the breeding season. Sparrows build nests above the ground surface, typically 6.7 to 7.1 inches (in) (17 to 18 centimeters (cm)) over the ground (Werner 1975, p. 147; Lockwood *et al.* 2001, p. 278). Nests are woven into clumps of dense vegetation and are well-concealed (Werner 1975, p. 145; Post and Greenlaw 1994, p. 14). Nest cups are consistently concealed from above (Post and Greenlaw 1994, p. 13), either through construction of a domed cover or through modifying vegetation in the vicinity (Werner 1975, p. 142; Post and Greenlaw 1994, pp. 13–14). The sparrow nesting cycle, from nest construction to independence of young, lasts approximately 30 to 50 days (Werner 1975, p. 163; Lockwood *et al.* 2001, p. 278), and sparrows may renest following both successful and failed nesting attempts (Werner 1975, p. 163; Post and Greenlaw 1994, p. 13; Lockwood *et al.* 2001, p. 278). Because of the long breeding season in southern Florida, sparrows regularly nest several times within a year and may be capable of successfully fledging 2 to 4 clutches, though few sparrows probably reach this level of success (Lockwood *et al.* 2001, p. 278). Second and third nesting attempts may occur during the early portion of the wet season, and nests later in the season occur over water. The height of nests above ground surface increases after water levels rise, and average height of late-season nests is 8.3 in (21 cm) above ground surface (Lockwood *et al.* 2001, p. 278).

Nest success rates vary among years and range from 12 to 53 percent (Lockwood *et al.* 2001, p. 278). Nest predation is the primary documented cause of nest failure (Pimm *et al.* 2002, p. 23), accounting for more than 75 percent of all nest failures (Lockwood *et al.* 1997, p. 723). Unlike many other wetland species, nest predation rates for sparrows are lowest under dry conditions. As water levels begin to rise above ground surface with the onset of the summer rains in May or June, nests become more detectable, and therefore, nest predation rates also rise. Nests that are active after June 1, when water levels are above ground, are more than twice as likely to fail as nests during drier periods (Lockwood *et al.* 2001, p. 278). This effect appears to be a result of both increased likelihood of nests being flooded and an increased likelihood of predation (Lockwood *et al.* 1997, p. 724; Lockwood *et al.* 2001, p. 278; Pimm *et al.* 2002, p. 25).

The Cape Sable seaside sparrow was first discovered in the cordgrass (*Spartina* spp.) marshes on Cape Sable

in 1918 and was originally thought to be limited in distribution to Cape Sable (Howell 1919, p. 87). On September 2, 1935, a severe hurricane struck the Keys and southern Florida, with the hurricane's center passing within a few miles of Cape Sable (Stimson 1956, p. 490). Post-hurricane observations suggested that, in the vicinity of Cape Sable, water levels resulting from the storm surge rose approximately 8 feet (ft) (2.4 meters (m)) above normal water levels, and the sparrow was thought to have disappeared from the area as a result of the storm, despite occasional reports of sparrows that could not be verified (Stimson 1956, p. 492). Between 1935 and the 1950s, searches on Cape Sable failed to locate sparrows (Stimson 1956, p. 492). Despite the fact that sparrows were again reported on Cape Sable in 1970 (Kushlan and Bass 1983, p. 140; Werner and Woolfenden 1983, p. 57), the habitat in the area had been changing significantly from cordgrass marshes to mangroves and mud flats since the 1935 hurricane, and sparrows are considered to have been extirpated from this area since 1981 (Kushlan and Bass 1983, p. 142).

In 1928, Cape Sable seaside sparrows were reported to the northwest of Pinecrest, along the western mainland coast of Florida, in the vicinity of what is today Everglades City (Nicholson 1928, p. 237). The location of this mainland record was improperly reported, and the true location was not accurately reported until 1954 (Sprunt 1954, p. 479). Stimson conducted extensive searches on the Florida mainland in the vicinity of the corrected 1928 sparrow observation and found sparrows to be widespread throughout both coastal cordgrass (reported as *S. patens*, but probably *S. bakeri*) (Werner and Woolfenden 1983, p. 60) marshes and freshwater prairies along the western edge of the Everglades (Stimson 1956, p. 490). However, by 1968, Stimson (1968, p. 867) concluded that widespread fires in this region had severely impacted the sparrows in that area, and he expected them to be extirpated from the area as a result.

In the early 1940s, Anderson (1942, p. 12) reported sparrows in the coastal marshes in the vicinity of Ochopee. Subsequent searches revealed that sparrows occurred south of Ochopee along the coastal marshes landward of the mangrove zone (Stimson 1956, p. 492). Werner (1975, p. 42) reported that habitat occupied by sparrows in the Ochopee area was changing from cordgrass marshes to other species, and mangroves were encroaching into the area. Werner's searches in the area from 1970 through 1975 (Werner 1975, p. 42)

revealed a decline in the number of sparrows and the amount of habitat available in the area. Sparrows were extirpated from this area by 1981 (Kushlan and Bass 1983, p. 143), and there is little or no remaining suitable habitat in the area.

Within the last 20 years, sparrows have consistently occurred within the marl prairies that have had appropriate hydrologic and vegetation conditions over time. There are six spatially distinct regions across the southern Everglades where sparrows currently occur, and these same areas have consistently supported the sparrow population. These regions are separated from each other by areas of unsuitable habitat, such as the forested communities of Long Pine Key, the deep-water slough communities of Shark River Slough and Taylor Slough, and other areas that do not support the specific conditions that sparrows require. The distances between these regions range from 2 to 20 miles (mi) (3.2 to 32.2 kilometer (km)), and sparrows rarely move among the regions (Walters *et al.* 2000, p. 1107; Lockwood *et al.* 2001, p. 279), though some such movements have now been documented (Lockwood 2006, p. 2). For the last 20 years, these areas have been commonly referred to as sparrow subpopulations A through F (Pimm *et al.* 2002, p. 69).

In 1972, Cape Sable seaside sparrows were discovered in the vicinity of Taylor Slough, in what is today known as subpopulation C, east of Shark River Slough (Ogden 1972, p. 852; see the individual units descriptions in the Proposed Critical Habitat section for identification of the subpopulations). Subsequent investigation revealed that a sparrow had been reported to Everglades National Park (ENP) in this area in 1958, but the observation was never verified (Werner 1975, p. 32; Pimm *et al.* 2002, p. 10). Surveys conducted with the use of a helicopter by Werner in 1974 and 1975 sought to characterize the distribution and abundance of sparrows in this region. These initial surveys revealed that sparrows were widely distributed and abundant (Werner 1975, p. 32). The sparrow locations reported included locations within what are today known as subpopulations B, C, D, E, and F. They occupied an area of approximately 21,745 to 31,629 ac (8,800 to 12,800 ha), and the number of sparrows occurring within this area was estimated to range from 1,500 to 26,300 individuals (Werner 1975, p. 32). Because of the magnitude of the area occupied and the large estimates of population size, ecologists concluded that sparrows probably occurred within this area for

many years. The difficulty in accessing the areas and the vastness of the areas (Kushlan and Bass 1983, p. 145), as well as the secretiveness of the sparrow, all contributed to the failure to document the sparrow's occurrence in the area previously. The sparrow populations within these areas probably fluctuated over time in response to changes in habitat suitability resulting from fires and hydrologic conditions (Taylor 1983, p. 148; Kushlan and Bass 1983, p. 145). These fluctuations may have also contributed to the lack of sparrow detections in these areas previously.

Throughout the known history of the Cape Sable seaside sparrow, the species has been recognized to associate with either of two vegetation communities: (1) The cordgrass marshes that are partly tidally influenced and occur within a narrow band of the coast just landward from the mangrove communities, and (2) the short-hydroperiod freshwater marl prairies that flank the deeper sloughs of the southern Everglades. The tidally influenced cordgrass marshes constitute typical seaside sparrow habitat (Post and Greenlaw 1994, p. 3). Occurrence year-round within the freshwater marl prairies is relatively unique among seaside sparrows, with only the now-extinct dusky seaside sparrow (*Ammodramus maritimus nigrescens*) exhibiting a similar habitat affinity; in those freshwater areas occupied by the dusky seaside sparrow, the habitat was still primarily composed of cordgrass (Post and Greenlaw 1994, p. 4). The freshwater habitats occupied by the Cape Sable seaside sparrow are not dominated by cordgrass; the most commonly associated species reported is muhly grass (*Muhlenbergia filipes*) (Werner 1975, p. 77; Kushlan and Bass 1983, p. 145; Werner and Woolfenden 1983, p. 59; Post and Greenlaw 1994, p. 4). However, a variety of vegetation species occurs within the freshwater marl prairies occupied by Cape Sable seaside sparrows, including vegetation from which *Muhlenbergia* is absent (Ross *et al.* 2006, pp. 7–16). Other dominant species that occur in these prairies include sawgrass (*Cladium jamaicense*), Florida little bluestem (*Schizachyrium rhizomatum*), black-topped sedge (*Schoenus nigricans*), and beak rushes (*Rhynchospora* spp.) (Werner and Woolfenden 1983, pp. 57–61; Ross *et al.* 2006, pp. 6–16).

Cape Sable seaside sparrows occupy the above two community types year-round, and the vegetation must support all sparrow life stages. Sparrows occur in the heart of the expansive Everglades wetland system, in a harsh environment where flooding, fires, and high temperatures occur regularly. During

periods when the plant communities are dry, usually coinciding with the early winter and late spring (December to May), sparrows travel across the ground beneath the grasses and only occasionally perch on the vegetation. During the wet season (June to November), these areas are continually inundated, with peak water depths occasionally exceeding 2 ft (0.6 m) (Nott *et al.* 1998, p. 26). During these periods, sparrows travel within the grass, perching low in the clumps, hopping among the bases of dense grass clumps, and walking over matted grass. They fly more frequently and regularly perch low in the vegetation, but they generally remain extremely inconspicuous (Dean and Morrison 2001, p. 51).

Periphyton is another important characteristic of sparrow habitat. Periphyton is a complex matrix of calcitic algae and associated organic detritus that plays an important role in the development of soils within the marl prairies (Davis *et al.* 2005, p. 825). During wet periods, a periphyton mat forms on all submerged substrates, including underlying limestone and vegetation stems. Marl soil accretion is directly related to the extent and productivity of periphyton (Davis *et al.* 2005, p. 825), and marl soils are consequently generally deeper in areas with longer hydroperiods. In some areas, a dense periphyton mat forms on the water surface and intertwines with the vegetation such that sparrows may be able to move across it under some conditions. These periphyton mats are an integral component of marl prairies and can affect the vegetation species and structure in an area and even the microclimate, which all relates to the suitability of an area for sparrows.

Small tree islands and individual trees and shrubs occur throughout the areas occupied by the sparrows, but at a very low density. Sparrows do not require woody vegetation during any aspect of their normal behavior and generally avoid areas where shrubs and trees are either dense or evenly distributed. However, the small tree islands and scattered shrubs and trees may serve as refugia during extreme environmental conditions and may be used as escape cover when fleeing from potential predators (Dean and Morrison 2001, p. 38). Because of the sparrows' general aversion to dense trees and woody vegetation, encroaching trees and shrubs can quickly degrade potential habitat.

After fires, sparrows do not regularly occupy burned areas for 2 to 3 years (Pimm *et al.* 2002, p. 97; Lockwood *et al.* 2005, p. 10), though they can re-occupy areas after only one year under

some conditions (Taylor 1983, p. 151; Werner and Woolfenden 1983, p. 62). This is probably a result of the sparrow's dependence on some level of structural complexity that must develop to provide cover, support nests, and allow them to move through the habitat during wet periods. Fire is not uncommon within the areas occupied by sparrows, and nearly all areas where sparrows currently occur have been burned within the past 10 to 20 years (Lockwood *et al.* 2003, p. 466). Large fires, such as the Ingraham fire of 1989, which burned approximately 98,842 ac (40,000 ha), pose a significant risk to sparrow subpopulations because they have the potential to render the habitat supporting several entire sparrow subpopulations unsuitable for 2 to 3 years or more (Lockwood *et al.* 2003, p. 467). A combination of naturally ignited and human-ignited (prescribed, arson, or accidental) fires have resulted in different fire frequencies in different portions of the sparrow's range. Most of the plant species that occur within sparrow habitat are fire-adapted and respond quickly following fire (Snyder 2003, pp. 203–204). Several of the dominant grass species, including *Muhlenbergia*, also flower primarily following fires during the growing season (Main and Barry 2002, p. 433). Under normal conditions, fires do not kill the individual plants that make up the dominant species in sparrow habitat, and fires only remove the above-ground growth and leaf litter (Snyder and Schaeffer 2004). The plant species rapidly respond, sprout quickly following fire, and grow rapidly. Many of the dominant grasses may grow more than 15 in (38 cm) after only a few weeks (Steward and Ornes 1975, p. 167; Snyder 2003, pp. 203–204). For this reason, the species composition and even the general structural characteristics of the vegetation may be nearly indistinguishable from unburned areas only 2 to 3 years after burning (Lockwood *et al.* 2005, pp. 8–9). Under unfavorable conditions such as extreme wet or dry periods, vegetation recovery from fire may be prolonged, and both species composition and structure may be affected.

Hydrology of the area is an important component of the habitat. In addition to directly affecting the sparrow and its ability to forage, move within habitat, and nest, hydrologic patterns largely dictate the plant community composition, and even the fire frequency. Ross *et al.* (2006) have investigated the relationship between vegetation species composition and hydroperiods. Their preliminary results

indicate that hydroperiods in the range of 90 to 270 days support the plant species upon which sparrows primarily depend (Ross *et al.* 2006, pp. 14, 40). Longer hydroperiods result in such unfavorable habitat conditions as dense, continuous growth of sawgrass or spike rushes (*Eleocharis* spp.) that sparrows do not occupy. Shorter hydroperiods may allow encroachment of woody species and may have an elevated potential of fire (Davis *et al.* 2005, p. 828). Within this optimal inundation duration, several different vegetation associations may result, but most are used regularly by sparrows. The local variability across the landscape within areas where sparrows occur produces a heterogeneous arrangement of vegetation conditions that provide habitat for sparrows during some environmental conditions. A complex relationship between hydrologic conditions, fire history, and soil depth determines the specific vegetation conditions at a site, and variation in these characteristics may result in a complex mosaic of vegetation characteristics (Taylor 1983, p. 152; Ross *et al.* 2006, pp. 1–46). This variability is characteristic of these habitats.

Average annual rainfall in the Everglades is approximately 56 in (142 cm) (ENP 2005, p. 15), with the majority falling within the summer months, which coincides with the latter half of the sparrow nesting season. This rainfall has a strong influence on the hydrologic characteristics of the marl prairies. However, throughout southern Florida, including sparrow habitat, hydrologic conditions are also strongly influenced by water management actions. A complex system of canals, levees, pumps, and other water management structures, operated by complex operational rules, can have profound impacts on the hydrologic conditions throughout much of the remaining marl prairies (Johnson *et al.* 1988, p. 31; Van Lent and Johnson 1993, pp. 4–7; Pimm *et al.* 2002, p. 106).

The interaction of fire and flooding also strongly influences the suitability of habitat for sparrows. In the most extreme case, the vegetation in areas that burn and are subsequently flooded within 1 to 3 weeks after the fire, either as a result of a natural rainfall event or human-caused hydrologic changes, may not recover for a long period, possibly 10 years or more (Ross 2006). Alternatively, if water levels overtop the sprouting grasses, the grasses may die, resulting in an absence of vegetation. Recovery of vegetation from these circumstances has to result from seed germination, which requires a much

longer time for recovery and may result in a different plant species composition and structure from the vegetation that was present prior to the fire. Under less extreme conditions, vegetation may recover following fire more quickly when water levels are near the soil surface, providing ample water for the plants.

The six distinct areas that Cape Sable seaside sparrows occupy have different environmental conditions that affect the likelihood of flooding and fire. Areas of sparrow habitat that are at higher elevation or in areas that tend to be overdrained, such as some areas proximate to urban and agricultural areas (Van Lent and Johnson 1993, p. 5), are consequently more likely to burn under dry conditions, but may be more likely to be favorable to sparrows under very wet conditions. Similarly, areas of sparrow habitat that are immediately downstream from water control structures and in relatively low-lying areas are generally less likely to burn frequently (Ross *et al.* 2006, p. 43), but they may be more subject to damaging water levels than other areas during wet periods (Nott *et al.* 1998, p. 31; Pimm *et al.* 2002, p. 107). This variability in the physical and environmental characteristics among areas occupied by the sparrows, in addition to the local meteorological variability within the region, may help maintain the sparrow population over time.

#### Previous Federal Actions

On March 11, 1967 (32 FR 4001), the Cape Sable seaside sparrow was determined to be “threatened with extinction,” and was conferred protection under the Endangered Species Preservation Act (Pub. L. 89–669). The Cape Sable seaside sparrow was subsequently added to the list of species protected under the Endangered Species Conservation Act of 1969 (Pub. L. 91–135), and all species listed on the Conservation Act were adopted by the Act in 1973 and assigned to endangered status. Critical habitat was designated for the Cape Sable seaside sparrow on August 11, 1977 (42 FR 40685) and was corrected on September 22, 1977 (42 FR 47840). The 1977 critical habitat designation for Cape Sable seaside sparrow encompasses approximately 197,260 ac (79,828 ha). The first recovery plan for the sparrow was completed in April 1983. A revised recovery plan for the sparrow was finalized in May 1999. On August 26, 1999, Sidney Maddock, Biodiversity Legal Foundation, submitted a petition to the Service, on behalf of himself, the Biodiversity Legal Foundation, the Florida Biodiversity Project, Brian

Scherf, and Rosalyn Scherf, to revise critical habitat for the Cape Sable seaside sparrow. On July 10, 2000 (65 FR 42316), we published a 90-day finding in which we determined that the petition presented substantial information indicating that revision may be warranted. On October 23, 2001 (65 FR 53573), we published a 12-month finding in which we announced that revision of critical habitat may be warranted as a result of detailed new information about sparrow distribution and ecology that had been obtained since critical habitat was originally designated. We concluded that some new areas would likely need to be added and some removed from the critical habitat designation. For more information on previous Federal actions, including the rationale for revising critical habitat, refer to that 12-month finding.

Until now, work on the revision of critical habitat for the Cape Sable seaside sparrow has been precluded due to other, higher priority listing and critical habitat actions. On December 20, 2000, a lawsuit was filed in the U.S. District Court for the District of Columbia alleging that the Service had not complied with the Act by failing to issue a 12-month finding as to how it planned to proceed with the petitioned revision to critical habitat and that the revision was withheld or unreasonably delayed under the Administrative Procedure Act (5 U.S.C. 551 *et seq.*). On September 30, 2003, the Court ruled that the Service complied with the Act by issuing the finding (see above), and was exercising reasonable discretion in postponing developing a proposed rule to revise critical habitat (*Biodiversity Legal Foundation v. Norton*, 285 F. Supp. 2d (D.D.C. 2003)). However, it ordered the Service to specify a date on which we would begin work on a rule to revise critical habitat for the Cape Sable seaside sparrow and estimate how long the process would take. On November 28, 2003, the Service notified the Court that a proposed rule to revise the critical habitat would be submitted to the **Federal Register** by October 24, 2006, and a final rule would be completed within 12 months of the publication of the proposed rule.

#### 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, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring any endangered or threatened species to the point at which the measures provided pursuant to the Act are 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 must first have features that are essential to the conservation of the species. Critical habitat designations identify, to the extent known 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 under section 4(b)(2) of the Act.] Furthermore, when the best available scientific data do not demonstrate that the conservation needs of the species require additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the species at the time of listing. However, an area that was not known to be occupied at the time of listing but is currently occupied by the species will likely be essential to the conservation of the species and, therefore, typically included in the critical habitat designation.

The Service's Policy on Information Standards Under the 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 package 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 (HCP), 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 that are essential to the conservation of the Cape Sable seaside sparrow and other areas that are essential to the conservation of the sparrow. We reviewed all available published and unpublished literature about the ecology of the sparrow, including the 1999 petition and supporting information provided with it. We reviewed the revised recovery plan (Service 1999a) for the sparrow, as well as the previous recovery plan (Service 1983). We evaluated management plans that address specific management needs of sparrows and their habitats and past section 7 consultations that addressed the needs of the sparrow, including the 1999 jeopardy biological opinion on Test 7 of the Experimental Program of Water Deliveries (Service 1999b), and the reasonable and prudent measures that were implemented as a result of the biological opinion. We reviewed reports received from section 7 consultations and from researchers who hold section 10(a)(1)(A) research permits. We reviewed past records of sparrow occurrence, distribution, and habitat use over time that were compiled by Florida Fish and Wildlife Conservation Commission (FWC) personnel, National Park Service (NPS) personnel, and independent researchers contracted by the Service and the NPS. We obtained spatial information on the location of sparrow occurrences recorded on surveys from 1981 to present and spatial data that reflect vegetation type, fire history, and hydrologic conditions within these areas. These data were entered into a geographic information system (GIS) for analysis. We reviewed information resulting from hydrologic modeling of several water management regimes that have been implemented in the region. We also evaluated the conclusions and recommendations that resulted from an independent peer review of the science related to sparrows and their management that was conducted by the American Ornithologists' Union in 1999 (Walters et al. 2000), and the recommendations and conclusions of the 2003 South Florida Ecosystem Restoration Multi-species Avian Workshop (SEI 2003), which was held to develop a common understanding of how four avian species, including the Cape Sable

seaside sparrow, would respond to Everglades restoration.

We have also reviewed available information on the habitat requirements of this species. In determining PCEs, we reviewed all available published and unpublished literature on the ecology, habitat needs, and factors limiting the sparrow's occurrence and distribution, including information in published, peer-reviewed journal articles; unpublished reports and theses; and preliminary results from ongoing research.

The original critical habitat designation (August 11, 1977, 42 FR 40685; corrected September 22, 1977, 42 FR 47840) was evaluated thoroughly during our analysis. However, the 1977 rule did not include the specific criteria used to delineate the boundaries of the original designation and did not identify any PCEs. Therefore, for this proposed rule, we chose to begin our analysis by considering historic habitat available to the species and habitat areas that support or have recently supported sparrows. All historical and recent locations of sparrow occurrences were mapped to better delineate sparrow habitat. Current and historical habitat data from several sources were also evaluated to identify areas outside of the known occupied range of the Cape Sable seaside sparrow that may support sparrows or have the potential to support sparrows. However, while historical habitat maps identified several areas outside of the known occupied range where sparrows may have occurred historically, these areas no longer contain habitat features that would support sparrows. Therefore, we do not propose as revised critical habitat any areas outside the geographical areas presently occupied by the species. For the purpose of this rule, areas presently occupied are those where sparrows have been recorded between 1981 and the present. We are not proposing to designate critical habitat on Cape Sable, in the Ochopee area, or in agricultural areas in the vicinity of Homestead where sparrows previously occurred.

After considering these habitat areas, our efforts focused on identifying those areas occupied at the time of listing that contain the physical and biological features essential to the conservation of Cape Sable seaside sparrows and those other areas that are essential to the conservation of the Cape Sable seaside sparrow and are presently occupied. To determine critical habitat boundaries, we began with comprehensive surveys of sparrow habitat conducted from 1981 to 2006 to identify all survey points where sparrows have been detected. Sparrow surveys are based on a point-

count survey method, which is a standard method for passerine birds. Surveys are conducted each year during the peak of sparrow breeding season. Details of the survey are described in Pimm *et al.* 2002. An array of survey points has been established across all potential sparrow habitats with survey points arranged on a grid. Because the survey area covers an expanse of area that does not contain roads or trails, observers are dropped off at survey points from a helicopter. The helicopter departs the area prior to the count initiating. An observer records all sparrows heard or seen at the point during a 7-minute period. The great majority of sparrow detections consist of territorial males. Following the completion of the count, the helicopter returns to transport the observer to the next survey point. Each survey point is visited once per season.

Because survey points are arranged on a 0.6-mi (1-km) grid and sparrows may only be detected accurately within 656 ft (200 m) of a survey point (Pimm *et al.* 2002, p. 153), some areas between survey points remain unsurveyed. We used a 2,460-ft (750-m) radius around each sparrow occurrence to account for unsurveyed areas adjacent to or between the survey points where sparrows likely occurred. The 2,460-ft (750-m) radius distance is approximately half of the distance between diagonally adjacent survey points. In addition, this distance is slightly larger than the sum of the reliable sparrow detection distance from a point (200 m) plus the diameter of an average non-breeding season sparrow home range (465 m, assuming a circular home range based on home range sizes in Dean and Morrison 2001, p. 36). This distance consequently represents an estimate of the area of habitat that sparrows detected at a point are likely to use.

We drew a boundary that encompassed the 750-m radius around sparrow locations but also took into account the particular habitat characteristics as determined through detailed inspection of satellite imagery, aerial photography, and habitat maps. Outlying sparrow occurrences that were recorded in only one year and were not adjacent to other recorded sparrow observations were excluded. Areas along the boundary that did not contain features essential for the sparrow (such as tree islands, cypress forest, and deep-water slough communities) were excluded from the unit. The resulting boundary of each unit encompassed the core areas of habitat that have been occupied by sparrows since 1981. This approach relies on the results of multiple years of surveys and

consequently provides a robust assessment of sparrow habitat.

We believe the method we have used to delineate critical habitat encapsulates the habitat that is important over time for all aspects of the sparrow's life history, accounting for the degree of natural variability in environmental and habitat conditions that occur within the Everglades.

### Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to propose as critical habitat, we 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 and 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 following information provides the justification and background for the PCEs for the Cape Sable seaside sparrow as they are defined at the end of the Primary Constituent Elements section.

#### *Space for Individual and Population Growth and Normal Behavior (Open Contiguous Habitat)*

Sparrow subpopulations require large patches of contiguous open habitat (approximately 4,000 ac/1,619 ha or larger). The minimum area required to support a population has not been specifically determined, but the smallest area that has remained occupied by Cape Sable seaside sparrows for an extended period is this size. Individual sparrows are area-sensitive and generally avoid the edges where other habitat types meet the marl prairies. They will only occupy small patches (less than 100 ac; 40.5 ha) of marl prairie vegetation when the patches occur within large, expansive areas and are not close to forested boundaries (Dean and Morrison 2001, p. 62–63). Once sparrows establish a breeding territory, they exhibit high site fidelity, and each individual sparrow may only occupy a small area for the majority of its life. Because sparrows are generally sedentary and avoid forested areas, they are not likely to travel great distances to find mates or to find outlying patches of



suitable habitat. The occurrence of sparrows over time within each of the subpopulations shows a centrality in which sparrows most consistently occur and are most abundant near the center of the patch of habitat in which they occur.

Within the marl prairies, individual trees or shrubs greater than 4.9 ft (1.5 m) tall at a density greater than or equal to 2.5 per ac (1 per ha), excluding tree islands composed of native tropical-Caribbean species occurring on an elevated substrate, will make the site unsuitable.

As detailed in the background section, structure of habitat within the marl prairie (muhi grasses and little overstory) and areas of potential habitat are also important to sparrows because of the inherent variability in habitat conditions. While there is relatively little elevational variation within the Everglades, differences in elevation as small as 12 in (30 cm) can result in very different plant community and habitat characteristics. Single rainfall events in the region can deposit greater than 12 in (30 cm) of rain within a short period, and the variability in elevation and vegetation characteristics is critical to provide refugia for sparrows under these adverse conditions.

#### Diet

While detailed information about the diet of sparrows is not known, invertebrates comprise the majority of their diet, though sparrows may also consume seeds when they are available (Werner 1975, p. 124; Post and Greenlaw 1994, p. 5). Howell (1932, p. 463) identified the contents of 15 sparrow stomachs and found remains primarily of insects and spiders, as well as amphipods, mollusks, and plant matter. Primary prey items that are fed to nestlings during the breeding season include grasshoppers (Orthoptera), moths and butterflies (Lepidoptera), dragonflies (Odonata), and other common large insects (Post and Greenlaw 1994, p. 5; Lockwood *et al.* 1997, p. 726). Adult sparrows probably consume mainly the same species during the nesting season. Sparrows may consume different proportions of different species over time and among sites, suggesting that they are dietary generalists (Pimm *et al.* 2002, p. 23). During the non-breeding season, preliminary information from evaluation of fecal collections suggests that a variety of small invertebrates, including weevils and small mollusks, are regularly consumed (Dean and Morrison 2001, p. 54). Evidence of seed consumption was only present in four percent of samples (Dean and Morrison

2001, p. 54). These non-breeding season samples may not be representative of the foods most frequently consumed during that season and may only represent a portion of the items ingested.

While the sparrow appears to be a dietary generalist, an important characteristic of sparrow habitat is its ability to support a diverse array of insect fauna. In addition, these food items must be available to sparrows both during periods when there is dry ground and during extended periods of inundation. The specific foraging substrates used are unknown, but they probably vary throughout the year in response to hydrologic conditions.

#### *Sites to Support Foraging, Nesting, and Sheltering*

Sparrows maintain territories that support all aspects of their life history (Werner and Woolfenden 1983, p. 67) and sparrows are completely reliant on the vegetation, like muhi grass, within their home ranges for foraging, nesting, and sheltering. Vegetation must also be sufficient to support them during extreme hydrologic conditions. Favorable vegetation characteristics are essential to the sparrow's survival and conservation.

During the dry portion of the year (December to May), when water levels are near or below ground surface, vegetation must be sufficiently dense to provide cover from potential predators like raptors and small mammalian predators, as well as for concealing nests. Sparrows most commonly move across the ground's surface. During the dry portion of the breeding season (March to May), sparrows build nests above the ground but relatively low in the vegetation (6.7 to 7.1 inches (17 to 18 cm) above the ground; Lockwood *et al.* 2001, p. 278).

During the wet portion of the year (June to November), the majority of or the entire ground surface may be inundated for extended periods. During these periods, the vegetation within a sparrow's home range serves as the substrate for sparrows, and they travel over and through it. Vegetation must be sufficiently dense and tall such that it can support the weight of sparrows as they move through it. In addition, it must provide cover and escape refugia in the structure of the plants from predators. Vegetation must also be sufficiently dense to support nests above the water. During the wet portion of the sparrow breeding season (June to August), sparrows build their nests higher in the vegetation than during dry periods, an average of 8.3 in (21 cm) above the ground surface (Lockwood *et*

*al.* 2001, p. 278). Even at the nest height, there must be sufficient height and density of vegetation to cover and conceal nests.

Vegetation must provide sufficient diversity and structure to provide foraging opportunities for sparrows. The birds must be able to find and capture insect prey both during periods when the ground is dry and when the area is inundated. Seeds that are consumed during the wet season must be gleaned from standing vegetation since any seeds on the ground are covered by water and periphyton and are inaccessible to sparrows.

#### *Hydrologic Regime*

Hydrologic conditions have significant effects on sparrows both directly and indirectly. First, depth of inundation within sparrow habitat is directly related to the sparrow's ability to move, forage, nest, and find shelter and cover from predators and harsh environmental conditions. At some extreme water levels, such as those that occurred within some areas of sparrow habitat in October 1995, when water levels were more than 2 ft. (0.6 m) above ground surface, even the majority of the vegetation in sparrow habitat is completely inundated, leaving sparrows with few refugia. Conditions such as these may result in significant impacts to sparrow survival, and if they occur during the breeding season, these water levels will cause flooding and loss of sparrow nests (Nott *et al.* 1998, p. 31; Pimm and Bass 2002, p. 416). Even more moderate water levels, around 6 in. (15 cm) above ground surface, may sufficiently inundate some habitat such that sparrows are incapable of finding shelter and moving around within limited areas. These water levels, when they occur during sparrow nesting season, result in increased rates of nest failure due to depredation (Lockwood *et al.* 1997, p. 724).

The hydrologic regime also affects sparrows indirectly through its effects on the vegetation community. Persistent increases in hydroperiod may quickly result in changes in vegetation communities from marl prairies or mixed prairies to sawgrass-dominated communities resembling sawgrass marshes (Nott *et al.* 1998, p. 30). Average hydroperiods that extend beyond 210 days per year generally result in sawgrass marsh communities (Ross *et al.* 2006, p. 14).

Conversely, areas that are subjected to short hydroperiods generally have higher fire frequency than longer-hydroperiod areas (Lockwood *et al.* 2003, p. 464; Ross *et al.* 2006, p. 43), and are readily invaded by woody



shrubs and trees (Werner 1975, p. 204; Davis *et al.* 2005, pp. 824–825). Both an increased incidence of fire and an increased density and occurrence of shrubs detract from the suitability of an area as sparrow habitat.

The plant species composition and density in the Everglades are largely influenced by hydroperiods. Hydroperiods that range from 60 to 270 days support the full variety of vegetation conditions that are generally suitable for sparrows (Ross *et al.* 2006, p. 14), though the vegetation composition and structure may vary significantly within this range.

#### Soils

The soils that underlie sparrow habitat are composed almost entirely of calcitic marl. These soils are not rich in organic matter and are formed when periphyton mats precipitate calcite (Davis *et al.* 2005, p. 825). In areas where hydroperiods are short, periphyton mats do not form, and marl soil accretion is slow, resulting in shallow soils (sometimes less than 0.8 in. (2 cm)) that do not support dense plant growth. The vegetation community within the marl prairies is uniquely associated with marl soils (Davis *et al.* 2005, p. 825) and does not occur on other soil series, though individual plant species that occur in marl prairies may occur in other conditions.

The short hydroperiods within these marl prairie communities also result in oxidation of organic matter or consumption of organic matter during fires. Sawgrass marsh plant communities may become established in areas with longer hydroperiods that usually contain organic peat soils that dry less frequently than marl prairies (Ross *et al.* 2006, p. 10; Ogden 2005, p. 813). Marl soils, and particularly deeper marl soils formed through continuous deposition of calcitic sediments from periphyton, support the density and diversity of plant species upon which sparrows rely. While similar vegetation may occasionally occur over peat soils with a surficial periphyton layer, these areas may not support sparrow habitat in the long term because they may tend to succeed toward sawgrass marsh vegetation under long hydroperiods, or they may be significantly altered when fires consume underlying peats during dry conditions.

#### Primary Constituent Elements for the Cape Sable Seaside Sparrow

Based on the above discussion 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 Cape Sable seaside sparrow's PCEs consist of:

(1) Calcitic marl soils characteristic of the short-hydroperiod freshwater marl prairies of the southern Everglades.

(2) Herbaceous vegetation that includes greater than 15 percent combined cover of live and standing dead vegetation of one or more of the following species (when measured across an area of greater than 100 feet<sup>2</sup> per 30.5 meters<sup>2</sup>): Muhly grass (*Muhlenbergia filipes*), Florida little bluestem (*Schizachyrium rhizomatum*), black-topped sedge (*Schoenus nigricans*), and cordgrass (*Spartina bakeri*).

(3) Contiguous open habitat. Sparrow subpopulations require large, expansive, contiguous habitat patches with few or sparse woody shrubs or trees.

(4) Hydrologic regime such that the water depth, as measured from the water surface down to the soil surface, does not exceed 7.9 inches (20 cm) during the period from March 15 to June 30 at a frequency of more than 2 out of every 10 years.

The above PCEs describe: (1) Soils that are widespread in the Everglades short-hydroperiod marshes and support the vegetation types that the sparrows rely on; (2) plant species that are characteristic of sparrow habitat in a variety of hydrologic conditions, that provide structure sufficient to support sparrow nests, and that comprise the substrate that sparrows utilize when there is standing water; (3) contiguous open habitat because sparrows require large, expansive, contiguous habitat patches with sparse woody shrubs or trees; (4) hydrologic conditions that would prevent flooding sparrow nests, maintain hospitable conditions for sparrows occupying these areas, and generally support the vegetation species that are essential to sparrows; and (5) overall, the habitat features that support the invertebrate prey base the sparrows rely on and the variability and uniqueness of habitat that provides, for example, periphyton mats for sparrows to survive in the southern Everglades.

This proposed designation is designed for the conservation of those areas containing PCEs necessary to support the life history functions that were the basis for the proposal. Because not all life history functions require all the PCEs, not all proposed critical habitat will contain all the PCEs.

Units are designated based on sufficient PCEs being present to support one or more of the species' life history functions. Some units contain all PCEs and support multiple life processes, while some units contain only a portion

of the PCEs necessary to support the species' particular use of that habitat. Where a subset of the PCEs is present at the time of designation, this rule protects those PCEs and thus the conservation function of the habitat.

#### Criteria Used To Identify Critical Habitat

We are proposing to designate revised critical habitat on lands that were determined to be occupied at the time of listing and that contain sufficient PCEs to support life history functions essential to the conservation of Cape Sable seaside sparrows. In addition, we are proposing to designate areas that were identified as occupied after listing and that we have determined to be essential to the conservation of the sparrow.

An area is considered for designation as critical habitat when it supports some portion of a subpopulation of Cape Sable seaside sparrow and meets either of the following criteria: (1) Possesses one or more of the PCEs and was occupied at the time of listing by sparrows, or (2) is determined to be currently occupied by the Cape Sable seaside sparrow through annual surveys conducted during the period 1981 to present and is essential to the conservation of the species. Those areas where sparrows were recorded from 1981 to present represent the areas that we are considering to be currently occupied.

Following the strategy outlined above, we began with records of sparrow occurrence recorded from comprehensive surveys conducted from 1981 to 2006 and identified all survey points where sparrows had been detected. These areas have consistently supported the core of the current sparrow subpopulations over a variety of conditions. In the variable environment of the Everglades wetlands, the size and distribution of the sparrow subpopulations may change in response to environmental conditions, fires, and other factors. In addition, the vegetation within these units may change in response to varying environmental conditions. These unit boundaries were delineated to provide sufficient area such that these subpopulations may continue to persist, even when taking into account some degree of vegetation change and changes in population size that may occur under adverse conditions.

Sparrow surveys were conducted in 1981 and each year from 1992 through present, but every survey point was not necessarily surveyed in every year. In addition, surveys cannot confirm the absence of sparrows from a survey

point. To address the tendency to underestimate the occurrence and distribution of sparrows that results from incomplete surveys and inability to reliably determine absence of sparrows, a survey point was considered to be occupied if a sparrow was recorded in at least one year during the period from 1981 to 2006.

The criteria we employed to delineate the boundaries consistently encompass the areas where sparrows have occurred, despite the fact that sparrows may not occur at every point within unit boundaries in every year. All subpopulations where sparrows currently occur were included in unit boundaries because flooding and the risk resulting from large fires (Lockwood *et al.* 2003, p. 467) makes, over time, several entire units unsuitable for sparrows for extended periods. When this occurs, maintaining suitable habitat that supports sparrows in other subpopulations is essential to ensure that the impacted units could be repopulated through immigration or through active management.

This proposed revised designation does not include all of the historical habitat areas that were occupied by the Cape Sable seaside sparrow. However, it includes the majority of the remaining freshwater marl prairies that currently support the sparrow population and portions of the *Spartina* marshes that support sparrows and reflects the communities that were historically occupied by the sparrow throughout its range. Such areas as dense sawgrass marshes, pine or cypress forests, and mangroves are not included in this proposed revised designation. We conducted field reconnaissance of some portions of the units and eliminated highly degraded sites, isolated fragments of potential habitat that were unlikely to contribute to the maintenance of the sparrow subpopulations, and areas where mangroves have recently encroached into marl prairie vegetation or where cypress trees are present, but not visible on aerial photographs. We believe the seven remaining, currently occupied areas presently contain essential habitat features or are essential to the conservation of the Cape Sable seaside sparrow and, therefore, we are proposing as revised critical habitat units for the sparrow. These seven units in total would result in an overall reduction of 40,918 ac (16,560 ha) in the total critical habitat acreage compared to the original critical habitat designation.

When determining proposed critical habitat boundaries, we made every effort to avoid including within the boundaries of the map contained within

this proposed rule developed areas such as buildings, paved areas, and other structures that lack PCEs for the Cape Sable seaside sparrow. The scale of the maps prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed areas. Any such structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, Federal actions limited to these areas would not trigger section 7 consultation, unless they affect the species or PCEs in adjacent critical habitat.

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 an HCP that identifies conservation measures that the permittee agrees to implement to minimize and mitigate the impacts on the species by the requested incidental take. We often exclude non-Federal public lands and private lands that are covered by an existing operative HCP and executed implementation agreement 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. There are no areas within the proposed revised critical habitat boundaries for the Cape Sable seaside sparrow that have HCPs. The units represent mostly Federal and some State land. We will consider the economic impacts of this proposal, and may exclude some portion based on the results of this analysis (see Economic Analysis section).

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

When designating critical habitat, we assess whether the areas determined to be occupied at the time of listing contain the PCEs and may require special management considerations or protection. As discussed here and below within the unit descriptions, we find that all of the PCEs in the areas of proposed revised critical habitat determined to be occupied at time of the Cape Sable seaside sparrow's listing (Units 1 and 2) may require special management considerations or protection due to threats to the species or its habitat (so do Units 3 through 7, although this finding is not necessary to propose them as critical habitat). Such management considerations or

protection include: measures to prevent damaging hydrologic conditions, control of invasive exotic plant species, and measures to prevent anthropogenic fires from spreading through Cape Sable seaside sparrow habitat.

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

We are proposing seven units as revised critical habitat for the Cape Sable seaside sparrow. The critical habitat units described below constitute our best assessment, at this time, of the areas determined to be occupied at the time of listing, that contain one or more of the PCEs, and that may require special management; and those additional areas that were not occupied at the time of listing but were found to be essential to the conservation of the Cape Sable seaside sparrow. We consider all units as currently occupied. The area proposed for designation as revised critical habitat differs significantly from the original 1977 designation. The critical habitat boundaries in the 1977 designation were based on section-township-range boundaries, and only delineated relatively large, general areas within which sparrows were known to occur at that time. Consequently, many areas originally designated were never Cape Sable seaside sparrow habitat, such as forested areas of Long Pine Key in Everglades National Park, dwarf cypress forests (also Everglades National Park), deep water slough communities, and agricultural areas. These areas, therefore, are not being proposed for inclusion in the revised critical habitat designation, and we have instead sought to accurately delineate only the specific areas that were important to sparrows in the proposed revision. Two of the seven critical habitat units in the proposed designation have been added since the original designation, based on an improved understanding of sparrow distribution and important sparrow habitat characteristics that has been developed since the 1977 designation. For further information on the changes from the original designation, see the descriptions of the individual units below.

The seven units proposed for designation as Cape Sable seaside sparrow critical habitat are: (1) Marl prairie habitats that support the main portion of sparrow subpopulation A within ENP and Big Cypress National Preserve (BCNP) that lie on the western side of Shark River Slough; (2) brackish cordgrass marshes and freshwater marl prairies that support a portion of sparrow subpopulation A within ENP and BCNP in the region known as the Stairsteps (for its jagged park boundary),

lying in the strip of prairie habitat between the coastal mangroves and the cypress forests of BCNP; (3) marl prairie habitats that support sparrow subpopulation B and lie exclusively within ENP in the vicinity of the Main Park Road, between Shark River Slough and Taylor Slough; (4) marl prairie habitat that supports sparrow subpopulation C within ENP along its

eastern boundary in the vicinity of Taylor Slough; (5) marl prairie habitats that support sparrow subpopulation D within ENP and the State-owned Southern Glades Wildlife and Environmental Area to the east of Taylor Slough; (6) marl prairie habitats that support sparrow subpopulation E within ENP, along the eastern edge of Shark River Slough; and (7) marl

prairies that support sparrow subpopulation F within the northern portion of ENP along its eastern boundary and lying to the east of Shark River Slough. Table 1 provides the area by unit determined to meet the definition of critical habitat for the Cape Sable seaside sparrow.

TABLE 1.—CRITICAL HABITAT UNITS PROPOSED FOR THE CAPE SABLE SEASIDE SPARROW

[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)	Total acres (hectares)
1. Unit 1—subpopulation A marl prairies .....	59,892 (24,237)	0	59,892 (24,237)
2. Unit 2—subpopulation A cordgrass marsh .....	11,402 (4,614)	0	11,402 (4,614)
3. Unit 3—subpopulation B .....	39,053 (15,804)	0	39,053 (15,804)
4. Unit 4—subpopulation C .....	8,059 (3,261)	0	8,059 (3,261)
5. Unit 5—subpopulation D .....	833 (337)	9,867 (3,993)	10,700 (4,330)
6. Unit 6—subpopulation E .....	22,278 (9,016)	0	22,278 (9,016)
7. Unit 7—subpopulation F .....	4,958 (2,006)	0	4,958 (2,006)
Total .....	146,475 (59,275)	9,867 (3,993)	156,342 (63,268)

Below, we provide a brief description and rationale for each proposed unit of revised critical habitat for the Cape Sable seaside sparrow.

#### Unit 1: Subpopulation A Marl Prairies

Unit 1 consists of 59,842 ac (24,237 ha) of freshwater marl prairie. The boundary of the proposed unit overlaps the boundary of BCNP and ENP. Of the total acreage, 31,292 ac (12,663 ha) are within ENP, and 28,600 ac (11,574 ha) are within BCNP. The proposed unit is entirely outside of currently designated critical habitat.

This unit was first determined to support sparrows in the mid-1950s (Stimson 1956, p. 496), and at that time sparrows were widely distributed across much of the marl prairies. Their occurrence within the area was not monitored continuously over time, but intermittent surveys indicated their continuous presence in the area. Surveys in 1968, near the time of the sparrow's listing, indicated that extensive fires had reduced the number of sparrows in the area significantly (Stimson 1968, p. 867), though they likely continued to occur scattered throughout the area within unburned patches (Werner 1975, p. 30). Since that time, the sparrow population in the area increased, and in the first comprehensive survey of potential sparrow habitat in 1981, the area was found to support a larger number of sparrows than any other subpopulation (Kushlan and Bass 1983, p. 144). Based on this information, we consider this

unit to be occupied at the time of the Cape Sable seaside sparrow's listing.

This area contains habitat features (one or more of the PCEs) that are essential to the conservation of the sparrow. It is the largest remaining contiguous patch of marl prairie habitat and has the potential to support a large population of sparrows similar to counts taken in prior surveys in the 1980s and 1990s. A 1999 review of sparrow biology conducted by the American Ornithologists' Union concluded that the best available means to reduce the risk of extinction of the sparrow is to retain and recover sparrow subpopulation A (Walters *et al.* 2000, p. 1111).

The unit's spatial separation from the other areas occupied by sparrows increases its significance to the species. It is the only area west of Shark River Slough that can support a large sparrow subpopulation. Its distance from other sparrow subpopulations and the intervening slough make it unlikely to be affected by any large fire that impacts the subpopulations east of Shark River Slough, and less likely to be subjected to any local detrimental hydrologic conditions that may affect the eastern subpopulations, either as a result of hydrologic management or meteorological events. Conversely, its separation from other subpopulations reduces the likelihood that it would be recolonized if local extirpation were to occur (Walters *et al.* 2000, p. 1110). While the vegetation within portions of the habitat has been impacted by fires and flooding, it has consistently

supported the vegetation species composition and structure that sparrows require.

From 1993 to 1995, the sparrow population in this area declined precipitously, from an estimated 2,608 individuals in 1992 to 240 individuals in 1995 (Pimm *et al.* 2002, p. 70). This decline apparently resulted from hydrologic management within the area immediately upstream of the area, just north of ENP. During these years, the sparrow habitat remained flooded for extended periods, sometimes deeply flooded. Since then, measures have been implemented by the U.S. Army Corps of Engineers and South Florida Water Management District water managers to prevent further damage to the sparrow subpopulation in the area resulting from excessive water levels and duration of inundation, but the subpopulation has not recovered. Water management plans continue to have the potential to result in damage to sparrow habitat in these areas, and special management of hydrologic conditions is necessary. Special management may also be needed to restore more favorable vegetation conditions within this unit.

#### Unit 2: Subpopulation A Cordgrass Marshes

Unit 2 consists of 11,402 ac (4,614 ha) of mixed cordgrass marsh and freshwater marl prairies within the coastal prairies between the mangrove zone and the cypress forests in the vicinity of BCNP in the Stairsteps region. Of the total acreage within this unit, 6,004 ac (2,430 ha) are within

BCNP, and the remaining 5,398 ac (2,184 ha) are within ENP. The proposed unit is entirely outside of currently designated critical habitat.

This unit was first determined to support sparrows in the mid-1950s (Stimson 1956, p. 498), and at that time, sparrows were distributed through much of the coastal marshes from Shark River Slough to the northwest to Ochopee. Their occurrence within the area was not monitored regularly over time, but intermittent surveys indicated their continuous presence in the area. Surveys in 1968, near the time of the sparrow's listing, indicated that fires that occurred in 1962 had reduced the number of sparrows in the area (Stimson 1968, p. 867), though they likely continued to occur throughout the area within unburned patches (Werner 1975, p. 30). Based on this information, we consider this unit to be occupied at the time of the Cape Sable seaside sparrow's listing.

This area contains habitat features (one or more of the PCEs) that are essential for the conservation of the sparrow. It is the only remaining large area of suitable habitat within the cordgrass marsh—marl prairie transitional zone that sparrows historically occupied. Since the 1981 surveys, the area has not supported large numbers of sparrows (Pimm *et al.* 2002, p. 70), but it has not been regularly surveyed. Because the vegetation in this area differs from that in the remainder of the proposed critical habitat, its condition and suitability is influenced by a different set of factors than in other units. The area is considered to be a portion of sparrow subpopulation A, but it is relatively isolated from the rest of the area supporting this subpopulation. This area may serve as a refugium for some sparrows and a source of birds for recolonization of the remainder of subpopulation A if large portions of the area were to be affected by large fires or damaging hydrologic conditions.

Mangrove and shrub encroachment has occurred in some portions of the coastal prairie habitats, and this area may require special management consideration (see Special Management Considerations and Protection section above).

#### Unit 3: Subpopulation B

Unit 3 consists of 39,053 ac (15,804 ha) of marl prairie and lies exclusively within ENP. The majority of the proposed unit lies within currently designated critical habitat. The unit is bounded on the south by the long-hydroperiod *Eleocharis*-dominated wet prairie and mangrove zone just inland of

Florida Bay, on the west by the sawgrass marshes and deepwater slough communities of Shark River Slough, on the north by the pine rockland vegetation communities that occur within ENP on Long Pine Key, and on the east by the sawgrass marshes and deepwater slough vegetation community of Taylor Slough. There is a continuous elevational gradient across the site, from the high elevations of the pine rocklands north of the unit down to the mangroves in the south. The area is bisected by the Main Park Road, which serves as the primary public access route from Homestead to Florida Bay. It is also bisected by the Old Ingraham Highway, which is an abandoned and partially restored roadway that historically provided access from Homestead to the Bay. Much of the western portion of this roadway was removed and restored to grade, but the eastern portions of the road, with its associated borrow canal and woody vegetation, interrupt the contiguity of the prairies within the eastern portion of this unit. Besides the road, borrow canal, and woody vegetation, which are not critical habitat, the area consists of one large, contiguous expanse of marl prairie that contains the PCEs for the sparrow.

This unit was not known to be occupied at the time the sparrow was listed in 1967, but sparrows were documented in this area in 1974 to 1975 (Werner 1975, p. 32). Consequently, we consider the unit to be unoccupied at the time of listing. However, when sparrows were first recorded in the area during 1974 to 1975 surveys, they were abundant and widespread (Werner 1975, pp. 32–33) and almost certainly occurred in the area prior to their discovery. This area was included in the 1977 critical habitat designation for the sparrow (42 FR 40685 and 42 FR 47840).

The area is essential to the conservation of the sparrow because it is the largest contiguous patch of marl prairie east of Shark River Slough. It is currently occupied, and has consistently supported the largest sparrow subpopulation since 1992 (Pimm *et al.* 2002, p. 70; Pimm and Bass 2006, p. 16). The natural characteristics of this area make it relatively immune to risk of flooding or frequent fires (Walters *et al.* 2000, p. 1110). Its location south of the high-elevation pine rocklands provides it a degree of protection from high water levels that does not occur within any other units. Within the southern portion of the greater Everglades watershed, water flows from north to south, with most water moving through Shark River Slough, and to a lesser extent through Taylor Slough. The pinelands block the

southward flow of water across this area such that the primary influences on water levels are rainfall and overflow from the flanking sloughs. In addition, portions of the area occur on relatively high elevations and remain relatively dry. Consequently, this area is not easily flooded as a result of managed water releases or upstream events, and the high water levels that may occur within other sparrow subpopulations are dampened by its relative position and topographic characteristics.

Similarly, the area is not particularly vulnerable to fires. It is not overdrained as a result of local hydrologic management actions, and the fire frequency is primarily influenced by natural ignition and managed prescribed fire. The public road that traverses the area could result in an increased likelihood of ignitions, but this has not occurred to date. In addition, the presence of both the Main Park Road and the Old Ingraham Highway within this unit provides human access greater than in any other unit and may allow better opportunities to manage both prescribed fires and wildfires such that they would pose a reduced risk to the persistence of the sparrow subpopulation.

#### Unit 4: Subpopulation C

Unit 4 consists of 8,059 ac (3,261 ha) of marl prairie habitat that lies exclusively within ENP in the vicinity of Taylor Slough, along the eastern edge of ENP. The proposed unit lies entirely within the currently designated critical habitat.

The unit consists of the prairies that flank both sides of the relatively narrow Taylor Slough. The area is bordered by the pine rocklands of Long Pine Key on the west and by isolated pine rocklands and the L-31 W canal that runs along the ENP boundary to the east. It is bordered by an area of constriction in Taylor Slough that is closely flanked on both sides by forested habitats at the southern end and by the Rocky Glades, a region of thin marl soils and exposed limestone and sparse vegetation (ENP 2005, p. 4), to the north. The area is bisected by Main Park Road in the southern portion of the unit, but the remainder of the unit consists of contiguous marl prairies.

This area was not known to be occupied at the time of listing in 1967, but sparrows were discovered in the area in 1972 (Ogden 1972, p. 852). We are consequently considering the unit to be unoccupied at the time of listing. At the time of discovery, sparrows were found to be widely distributed and abundant in this area (Werner 1975, p. 32), and it was likely occupied for many

years prior to its discovery. Following its discovery, the site was the location of some of the first intensive study of the sparrow's biology and its relationship to its habitat (Werner 1975, p. 17). This area was included in the 1977 critical habitat designation for the sparrow (42 FR 40685 and 42 FR 47840).

During the mid-1970s, sparrows were abundant at this site (Werner 1975, p. 32), and surveys in 1981 estimated 432 sparrows in this area (Pimm *et al.* 2002, p. 70). Since 1981, the sparrow subpopulation at this site has declined and has ranged from zero to 144 sparrows between 1995 and the present (Pimm *et al.* 2002, p. 70; Pimm and Bass 2006, p. 16). When sparrows were abundant in the area, the area was in a relatively dry condition, and water levels only rose above ground level for limited periods. Beginning in 1980, a pump station, which was installed along the eastern boundary of ENP at the approximate location of the historic slough, was operated to increase hydroperiods in the area resulting in extended hydroperiods within the portions of the area downstream from the pumping station (ENP 2005, p. 39). Vegetation changed in this area from marl prairie to sawgrass marsh (ENP 2005, pp. 3–40), and sparrows ceased to occur in this area. At the same time, the northern portions of sparrow subpopulation C, above the pump station, continued to be overdrained as a result of the adjacent canal and a lowered water table in the agricultural lands immediately adjacent to ENP (Johnson *et al.* 1988, pp. 30–31; ENP 2005, p. 53). In these overdrained areas, frequent fires impacted the habitat and resulted in reduced sparrow numbers (Pimm *et al.* 2002, p. 77).

This area is essential for the conservation of the sparrow because it provides a contiguous expanse of habitat that is largely separated from other nearby subpopulations in an area that is uniquely influenced by hydrologic characteristics. The Taylor Slough basin is a relatively small system, and much of the headwaters of the Slough are cut off by canals and agricultural development to the east of ENP. Portions of this unit near the slough have deep soils (15.7 in (40 cm)) (Taylor 1983, pp. 151–152) and support resilient vegetation that responds rapidly following fire (Taylor 1983, p. 151–152; Werner and Woolfenden 1983, p. 62). Sparrows were reported to reoccupy burned sites in this region within 1 to 2 years following fire (Werner and Woolfenden 1983, p. 62). The unit contains the vegetation characteristics upon which sparrows rely, and most of the area currently

experiences hydrologic conditions that are compatible with sparrows (one or more of the PCEs). This area remains heavily influenced by hydrologic management along the eastern boundary of ENP (ENP 2005, p. 17–18). Portions of the area are also overdrained, resulting in the possibility of high fire frequency.

The location of this unit relative to other sparrow subpopulations is also significant in that it occurs in the center of the five sparrow subpopulations that occur east of Shark River Slough in the vicinity of Taylor Slough (subpopulations B through F). The habitat in this area probably plays an important role in supporting dispersal among the eastern subpopulations, acting as a “hub” that facilitates dispersal in the region and recolonization of local areas that are detrimentally impacted.

#### *Unit 5: Subpopulation D*

Unit 5 consists of 10,700 ac (4,330 ha) of marl prairie vegetation in an area that lies on the eastern side of the lower portion of Taylor Slough. A portion of the proposed unit is within currently designated critical habitat.

The majority of this area (9,867 ac; 3,993 ha) is within the Southern Glades Wildlife and Environmental Area, which is jointly managed by the South Florida Water Management District and the FWC. The remaining 883 ac (337 ha) occurs within the boundary of ENP. The area is bordered on the south by the long-hydroperiod *Eleocharis* vegetation and mangroves that flank Florida Bay, on the west by the sawgrass marshes and deep-water vegetation of Taylor Slough, on the east by longer-hydroperiod *Eleocharis* vegetation and overdrained areas with shrub encroachment in the vicinity of U.S. Highway 1, and on the north by agricultural lands and development in the vicinity of Homestead and Florida City.

Similar to the other eastern subpopulations, sparrows were not known to occur in this area at the time of listing in 1967, but were discovered during surveys from 1972 to 1975 (Werner 1975, p. 32). We consequently consider this proposed unit to be unoccupied at the time of listing. However, when sparrows were discovered in this area, they were widespread (Werner 1975, p. 32), suggesting that they had occurred in this region for a long period prior to their discovery. A portion of this area, including both Federal- and State-owned lands was included in the 1977 critical habitat designation for the sparrow (42 FR 40685 and 42 FR 47840).

This area is essential for the conservation of the sparrow because it is the easternmost area where sparrows occur and is the only subpopulation that occurs on the eastern side of Taylor Slough. It is consequently unlikely to be affected by the same factors (e.g., large fires or extreme hydrologic conditions) that affect the other eastern subpopulations that lie primarily between Shark River Slough and Taylor Slough. Loss of suitable habitat and the sparrow subpopulation within this area would also result in a reduction in the geographic range of the sparrow.

The 1981 comprehensive survey of potential sparrow habitat estimated 400 sparrows within this region (Pimm *et al.* 2002, p. 70). This was higher than any number of sparrows recorded in the area in recent years, and estimates have ranged from zero to 112 sparrows between 1992 and the present (Pimm *et al.* 2002, p. 70; Pimm and Bass 2006, p. 16). The area currently contains all PCEs, but the majority of the area is dominated by sawgrass, which indicates a wetter-than-average condition within the spectrum of conditions that support marl prairie and sparrow habitat (Ross *et al.* 2006, p. 16). The habitat in this area is divided by several canals that are part of the C–111 basin. This canal system results in relatively altered hydrologic conditions in the region (ENP 2005, p. 18) and causes extended hydroperiods during wet periods (Pimm *et al.* 2002, p. 78). These factors influencing hydrologic conditions will continue to require management in the future.

#### *Unit 6: Subpopulation E*

Unit 6 consists of 22,278 ac (9,016 ha) of marl prairie habitat in an area that lies along the eastern margin of Shark River Slough. This unit occurs entirely within ENP, and the majority of the proposed unit is within currently designated critical habitat. The area is bordered to the south by the pine rocklands of Long Pine Key and by an area dominated by dwarf cypress trees. The sawgrass marshes and deepwater slough vegetation communities of Shark River Slough comprise the western and northern boundary of the area, and the Rocky Glades comprise the eastern boundary.

Similar to the other eastern subpopulations, sparrows were not known to occur in this area at the time of listing in 1967, but were discovered during surveys from 1972 to 1975 (Werner 1975, p. 32). We consequently consider this proposed unit to be unoccupied at the time of listing. However, when sparrows were discovered in this area, they were

relatively widespread (Werner 1975, p. 33), suggesting that they had occurred in this region for a long period prior to their discovery. The majority of this area was included in the 1977 critical habitat designation for the sparrow (42 FR 40685 and 42 FR 47840). This area is currently occupied by sparrows and contains one or more of the PCEs.

This area is essential to the conservation of the species because it supports one of the large, relatively stable sparrow subpopulations. It is also centrally located among the areas supporting other subpopulations, and its central location probably plays an important role in aiding dispersal among subpopulations, particularly movements from the eastern subpopulations to the subpopulations west of Shark River Slough. Since 1997, this area has supported the second largest sparrow subpopulation, ranging from 576 to nearly 1,000 individuals in recent years (Pimm *et al.* 2002, p. 70; Pimm and Bass 2006, p. 16).

The centrality of this subpopulation also helps to prevent it from being affected by managed hydrologic conditions because it is distant from canals, pumps, and water management structures that occur along the boundaries of ENP. The magnitude of any managed water releases is generally dampened by the time their influences reach this area. However, the proximity of this area to Shark River Slough may make the habitats and the sparrows that they support vulnerable to hydrologic effects during wet periods. The western portions of the area may become too deeply inundated to provide good habitat for sparrows under some deep water conditions. Large-scale hydrologic modifications, such as those proposed under the Comprehensive Everglades Restoration Plan, have the potential to influence habitat conditions in this area, and may require special management attention. Large-scale fires may also detrimentally affect this area, and there are no intervening features in the region that would aid in reducing the potential impacts on this subpopulation. While the area is relatively distant from ENP boundaries and potential sources of human-caused ignition, fires that are started along the eastern ENP boundary may rapidly spread into the area. The 2001 Lopez fire was a human-caused fire that affected a portion of this unit (Lockwood *et al.* 2005, p. 4). Risk from fire may also require management in this area to prevent impacts to this large sparrow subpopulation.

#### Unit 7: Subpopulation F

Unit 7 consists of 4,958 ac (2,006 ha) of marl prairie that lies along the eastern

boundary of ENP, and is the northernmost of the units east of Shark River Slough. This is the smallest of the proposed units and the majority of the proposed unit is within currently designated critical habitat. It is bounded on the north and west by the sawgrass marshes and deep-water slough vegetation communities associated with Shark River Slough, and on the east by agricultural and residential development and the boundary of ENP. Its southern boundary is defined by the sparse vegetation and shallow soils of the Rocky Glades.

Similar to the other eastern subpopulations, sparrows were not known to occur in this area at the time of listing in 1967, but were discovered during surveys from 1972 to 1975 (Werner 1975, p. 32). We consequently consider this proposed unit to be unoccupied at the time of listing. However, when sparrows were discovered in this area, they were relatively widespread (Werner 1975, p. 33), suggesting that they had occurred in this region for a long period prior to their discovery. The majority of this area was included in the 1977 critical habitat designation for the sparrow (42 FR 40685 and 42 FR 47840). This area is currently occupied by sparrows, and contains one or more of the PCEs associated with sparrow critical habitat.

The first comprehensive surveys of potential sparrow habitat in 1981 resulted in an estimated population of 112 sparrows in this area, and most subsequent surveys have resulted in estimates lower than this, including several years when no sparrows were found (Pimm *et al.* 2002, p. 70; Pimm and Bass 2006, p. 16). However, sparrows were always found in the area in the year following a zero count (Pimm *et al.* 2002, p. 70), indicating that sparrows are consistently using the area.

This area is essential to the conservation of the sparrow because it would serve to support or recolonize subpopulations C and E (in units 4 and 6) if those areas were to become unsuitable. Loss of habitat in this area would also result in a reduction in the total spatial distribution of sparrows. Its position in the landscape results in a unique set of threats that differ from those in other subpopulations. Because of its proximity to urban and agricultural areas and its relative topographic location, this area has been consistently overdrained in recent years and remains dry for longer periods than other subpopulations. The relative dryness of the area may allow the site to remain suitable as habitat for sparrows under very wet conditions,

when other subpopulations may become deeply inundated for long periods.

Because of its dryness and its proximity to developed areas, this area has been subjected to frequent human-caused fires during the past decade, resulting in periods of poor habitat quality. Management of fires in the area will continue to require special consideration. In addition, the dry conditions have allowed encroachment of woody vegetation, including invasive exotic and native woody species. Invasive exotic trees, primarily Australian-pine (*Casuarina* spp.), melaleuca (*Melaleuca quinquenervia*), and Brazilian pepper (*Schinus terebinthifolius*), have become established in local areas (Werner 1975, pp. 46–47), often forming dense stands. These trees have reduced the suitability of some portions of the habitat for sparrows and have reduced the amount of contiguous open habitat. Aggressive management programs have been implemented by management agencies to address this issue, and control of woody vegetation will continue to be required.

#### 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 Court of Appeals have invalidated this definition (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)). 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 that is 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 a 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 because 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) of the Act 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 jeopardy to a listed species or 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 jeopardy to the listed species or 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 reinstate consultation on previously reviewed actions in instances where a new species is listed or 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 consultation with 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 Cape Sable seaside sparrow or its designated critical habitat will require section 7 consultation under the Act.

Activities on State, Tribal, local or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act or a permit under section 10(a)(1)(B) of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or 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 Cape Sable Seaside Sparrow and Its Critical Habitat*

##### *Jeopardy Standard*

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

The jeopardy analysis usually expresses the survival and recovery needs of the sparrow 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 the affected subpopulation(s), inclusive of associated habitat conditions, a jeopardy finding for the species is warranted, because of the relationship of each subpopulation to the survival and recovery of the species as a whole.

##### *Adverse Modification Standard*

For the reasons described in the Director's December 9, 2004 memorandum, 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 Cape Sable seaside sparrow critical habitat units is to support viable core area 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 species. Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that the conservation value of the designated critical habitat for the sparrow is appreciably reduced.

Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore result in consultation for the sparrow include, but are not limited to:

(1) Actions that would significantly and detrimentally alter the hydrology of marl prairie habitat found in all units. Such activities could include, but are not limited to, changes to hydrological management plans that result in increased depth of inundation or duration of flooding within sparrow habitat during the breeding season;

(2) Actions that would allow encroachment of nonnative and invasive woody plant species. Such activities could include, but are not limited, to local or regional overdrying and introduction of nonnative woody plant species;

(3) Actions that would significantly and detrimentally alter the topography of a site (such alteration may affect the hydrology of an area or may render an area unsuitable for nesting). Such activities could include, but are not limited to, off-road vehicle use and mechanical clearing;

(4) Actions that would reduce the value of a site by significantly disturbing sparrows from activities, such as foraging and nesting; and

(5) Actions that would significantly and detrimentally alter water quality that may lead to detrimental changes in vegetation species composition and structure or productivity of prey organisms and may have direct detrimental effects on sparrows.

These activities could reduce population sizes and the likelihood of persistence within one or more sparrow subpopulations, and reduce the suitability of habitat for breeding for extended periods.

We consider all of the units proposed as revised critical habitat to contain features essential to the conservation of the Cape Sable seaside sparrow or to be essential to the conservation of the Cape Sable seaside sparrow. All units are within the geographic range of the

species, all areas are currently occupied by sparrows (based on surveys conducted since 1981; Pimm *et al.* 2002; Pimm and Bass 2006), and all areas are likely to be used by the sparrow. Federal agencies already consult with us on activities in areas currently occupied by the sparrow if the species may be affected by the activity to ensure that those Federal actions do not jeopardize the continued existence of the sparrow or destroy or modify its current designated critical habitat.

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

The seven units we propose as revised critical habitat satisfy the definition of critical habitat under section 3(5)(A) of the Act because each is a specific area within the geographical area occupied by the Cape Sable seaside sparrow at the time of listing within which are found those physical and biological features that are essential to its conservation and that may require special management considerations or protection, or is an area not occupied by this species at the time of listing but is essential to the conservation of the sparrow (see “Primary Constituent Elements,” “Criteria Used to Delineate Critical Habitat,” and “Special Management Considerations or Protection”). We considered whether conservation activity on publicly or privately managed lands within a proposed unit might remove the need for special management considerations or protection from all or part of a unit. All of the proposed revised critical habitat units fall within lands managed wholly or partially for conservation purposes. We considered excluding NPS lands and State-managed lands from the proposed critical habitat designation because these properties currently operate under general management plans (NPS) or conceptual management plans (FWC) that address habitat management for the sparrow. ENP and BCNP are currently drafting new General Management Plans, but they are not yet complete. While the existing management plans include provisions and actions intended to maintain the habitat type, we determined that none of the existing plans provide sufficient assurances that hydrologic management in these areas will maintain sparrow habitat. Neither the NPS nor the FWC directly manage the hydrologic conditions on their properties. Inflows into the properties, as well as adjacent hydrologic conditions that affect the lands through groundwater seepage, are regulated by other Federal and State agencies.

Under section 4(b)(2) of the Act, we must consider the economic impact and any other relevant impact of designating areas as critical habitat. We may exclude any area from critical habitat if we determine that the benefits of exclusion outweigh the benefits of inclusion.

#### *Benefits of Inclusion*

The most direct benefit of critical habitat is that actions taken, authorized, or funded by the Federal government require consultation under section 7 of the Act to ensure that these actions are not likely to destroy or adversely modify critical habitat (see “Effects of Critical Habitat Designation—Section 7 Consultation”). This regulatory benefit has two principal limitations. First, it applies only to Federal actions and not to other actions that may destroy or adversely modify critical habitat. Second, it ensures only that designated areas are not destroyed or adversely modified and does not require specific steps toward recovery.

Another benefit of critical habitat is that its designation serves to educate landowners, State and local governments, and the general public. By clearly delineating areas of high conservation value, designation may help focus and promote conservation efforts for the Cape Sable seaside sparrow. Designation informs State and Federal agencies and local governments about areas that they may consider for protection or conservation.

#### *Benefits of Exclusion*

Because the regulatory effect of critical habitat is limited to Federal actions, the non-economic impacts of critical habitat are generally limited to Federal lands, partnerships, and trust resources. We have determined that the lands encompassed by the proposed revised critical habitat units for the Cape Sable seaside sparrow are not owned or managed by the Department of Defense, there are currently no HCPs for the Cape Sable seaside sparrow, and the proposed revised designation does not include any Tribal lands. We anticipate no impact to national security, Tribal lands, partnerships, or habitat conservation plans from this revised critical habitat designation as proposed.

Based on the best available information, we believe that the benefits of designating each of the seven units we propose as revised critical habitat outweigh the non-economic benefits of excluding any specific areas within those units. We will evaluate potential economic benefits of exclusion in a separate notice (see “Economic Analysis”).

## Economic Analysis

An analysis of the economic impacts of proposing critical habitat for the Cape Sable seaside sparrow 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/verobeach>, or by contacting the South Florida Ecological Services Office directly (see **ADDRESSES**). For further explanation, see the Required Determinations section below.

## Editorial Changes

This proposed rule incorporates a change to the common and scientific names of the Cape Sable seaside sparrow used in the current critical habitat entry for this species at 50 CFR 17.95(b). The current critical habitat entry, established by an August 11, 1977, final rule (42 FR 40685), uses the common name "Cape Sable sparrow" and the scientific name "*Ammospiza maritima mirabilis*." Both names are outdated. Our proposed change will bring the common and scientific names into agreement with those used by the scientific community as well as names used for this species in the table at 50 CFR 17.11(h).

## Peer Review

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), and based on our implementation of the Office of Management and Budget's Final Information Quality Bulletin for Peer Review, dated December 16, 2004, we will seek the expert opinions of at least five appropriate and independent specialists regarding the science in 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 copies of this proposed rule to these peer reviewers 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 revised 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 on this proposal, if any are requested, once the draft economic analysis is available so that we can receive public comment on the draft economic analysis and proposed rule simultaneously. However, we can schedule public hearings prior to that time, if specifically requested. We will 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. When it is completed, the draft economic analysis can be obtained from the internet Web site at <http://www.fws.gov/verobeach> or by contacting the South Florida Ecological Services Office directly (see **ADDRESSES**).

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

Our assessment of economic effects will be completed prior to final rulemaking based upon review of the draft economic analysis prepared pursuant to section 4(b)(2) of the Act 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 and 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 Act and Executive Order 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 Executive Order 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 Cape Sable seaside sparrow is a significant regulatory action under Executive Order 12866, but 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 because only Federal and State lands are involved in the proposed designation. As such, a Small Government Agency Plan is not required. However, as we conduct our economic analysis, we will further evaluate this issue and, as appropriate,

review and revise this assessment as warranted.

#### *Takings*

In accordance with Executive Order 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of designating critical habitat for the Cape Sable seaside sparrow in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for the Cape Sable seaside sparrow does not pose significant takings implications. However, we will further evaluate this issue as we conduct our economic analysis and review and revise this assessment as warranted.

#### *Federalism*

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed revised critical habitat designation with appropriate State resource agencies in Florida. The designation of critical habitat in areas currently occupied by the Cape Sable seaside sparrow 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 that contain the features essential to the conservation of the species are more clearly defined, and the PCEs of the habitat necessary to the conservation 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 revised critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the PCEs within the designated areas to assist the public in

understanding the habitat needs of the Cape Sable seaside sparrow.

*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 (NEPA) (42 U.S.C. 4321 et seq.)*

It is our position that, outside the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This assertion was upheld by 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 were no Tribal lands occupied at the time of listing and no Tribal lands contain unoccupied areas that are essential for the conservation of the Cape Sable seaside sparrow. Therefore, revised critical habitat for the sparrow has not been proposed on Tribal lands.

#### References Cited

A complete list of all references cited in this rulemaking is available upon request from Tylan Dean, South Florida Ecological Services Office (see ADDRESSES).

#### Author(s)

The primary author of this package is the South Florida Ecological Services Office.

#### 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(b), revise the entry for "Cape Sable Sparrow (*Ammospiza maritima mirabilis*)" to read as follows:

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

\* \* \* \* \*

##### (b) Birds.

\* \* \* \* \*

Cape Sable Seaside Sparrow  
(*Ammospiza maritima mirabilis*)

(1) Critical habitat units are depicted for Miami-Dade and Monroe Counties, Florida, on the maps below.

(2) The primary constituent elements of critical habitat for the Cape Sable seaside sparrow are the habitat components that provide:

(i) Calcitic marl soils characteristic of the short-hydroperiod freshwater marshes of the southern Everglades;

(ii) Herbaceous vegetation that includes greater than 15 percent combined cover of live and standing dead vegetation of one or more of the following species (when measured across an area of greater than 100 feet<sup>2</sup> or 30.5 meters<sup>2</sup>): Muhly grass (*Muhlenbergia filipes*), Florida little bluestem (*Schizachyrium rhizomatum*), black-topped sedge (*Schoenus nigricans*), and cordgrass (*Spartina bakeri*);

(iii) Contiguous open habitat. Sparrow subpopulations require large, expansive, contiguous habitat patches with few or sparse woody shrubs or trees; and

(iv) Hydrologic regime such that the water depth, as measured from the water surface down to the soil surface, does not exceed 20 centimeters during the period from March 15 to June 30 at a frequency of more than 2 out of every 10 years.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, airports, roads, and other paved areas) and the land on which they are located existing on the effective date of this rule and not containing one or

more of the primary constituent elements.

(4) Critical Habitat Map Units. Data layers defining map units were created using a GIS and adding activity areas around all Cape Sable seaside sparrow point count survey coordinates provided by the National Park Service at which sparrows have been recorded since 1981. These activity areas were merged to form one large polygon, and the boundaries were further refined by delineating suitable sparrow habitat and excluding unsuitable habitat along the borders based on interpretation of 2004 Florida Digital Orthographic Quarter Quads and Landsat false-color satellite imagery (a mosaic of color-balanced Landsat 7 Enhanced Thematic Mapper scenes from December 2003 to April 2004 using bands 5, 4, and 3). The projection represented in all mapping of units is Universal Transverse Mercator (UTM) Zone 17 North, NAD 83 Datum.

(5) Unit 1: (Subpopulation A marl prairies.

(i) *General description:* Unit 1 consists of 59,892 ac (24,237 ha) of marl prairie habitat that lies within Everglades National Park and Big Cypress National Preserve in western Miami-Dade County and eastern Monroe County.

(ii) *Coordinates:* From the Shark Valley Lookout Tower USGS 1:24,000 quadrangle map, Florida, land and water bounded by the following UTM Zone 17 NAD 83 coordinates (E, N): 514143, 2846698; 516431, 2846561; 516824, 2846011; 516682, 2844068; 516594, 2841582; 516875, 2840873; 517488, 2840452; 517734, 2839419; 517673, 2838041; 517387, 2837426; 516650, 2837228; 516449, 2836800; 516540, 2835500; 516658, 2834795; 516098, 2834078; 514660, 2832924; 514076, 2832343; 513001, 2831639; 512839, 2830561; 512823, 2828209; 512043, 2827390; 511172, 2827222; 509898, 2827253; 508760, 2827281; 508159, 2827079; 508038, 2826568; 508013, 2825568; 508511, 2824880; 509868, 2824901; 511045, 2824251; 511198, 2823869; 511168, 2822653; 511121, 2821816; 510757, 2821338; 507478, 2821417; 507360, 2821015; 507021, 2820482; 506474, 2820279; 505878, 2820294; 505159, 2820852; 505149, 2821528; 504894, 2822210; 504136, 2822229; 503651, 2822376; 503427, 2823165; 502463, 2823675; 502423, 2825921; 502848, 2826694; 504152, 2826771; 504593, 2827085; 504532, 2827897; 504455, 2829197; 504000, 2829424; 503518, 2829679; 503534, 2830328; 503610, 2831218; 503664, 2832353; 503525, 2832735; 503102, 2833204; 501505, 2833324; 500560, 2833482; 500303, 2834029;

500297, 2834895; 500460, 2837135;  
500875, 2837476; 502014, 2837476;  
503043, 2837451; 503651, 2837896;  
503936, 2838484; 504643, 2838548;  
505407, 2838745; 505831, 2839465;  
506329, 2839885; 506608, 2840176;  
507187, 2840568; 508459, 2840483;  
509299, 2840462; 509628, 2840589;  
509703, 2841453; 509532, 2842241;  
509275, 2842815; 508665, 2843343;  
508548, 2844103; 509299, 2844896;  
509556, 2845404; 510049, 2845608;  
513381, 2845500; 513540, 2846442;  
514143, 2846698.

(iii) **Note:** Map of Unit 1 is provided at paragraph (6)(iii) of this entry.

(6) Unit 2: Subpopulation A cordgrass marshes.

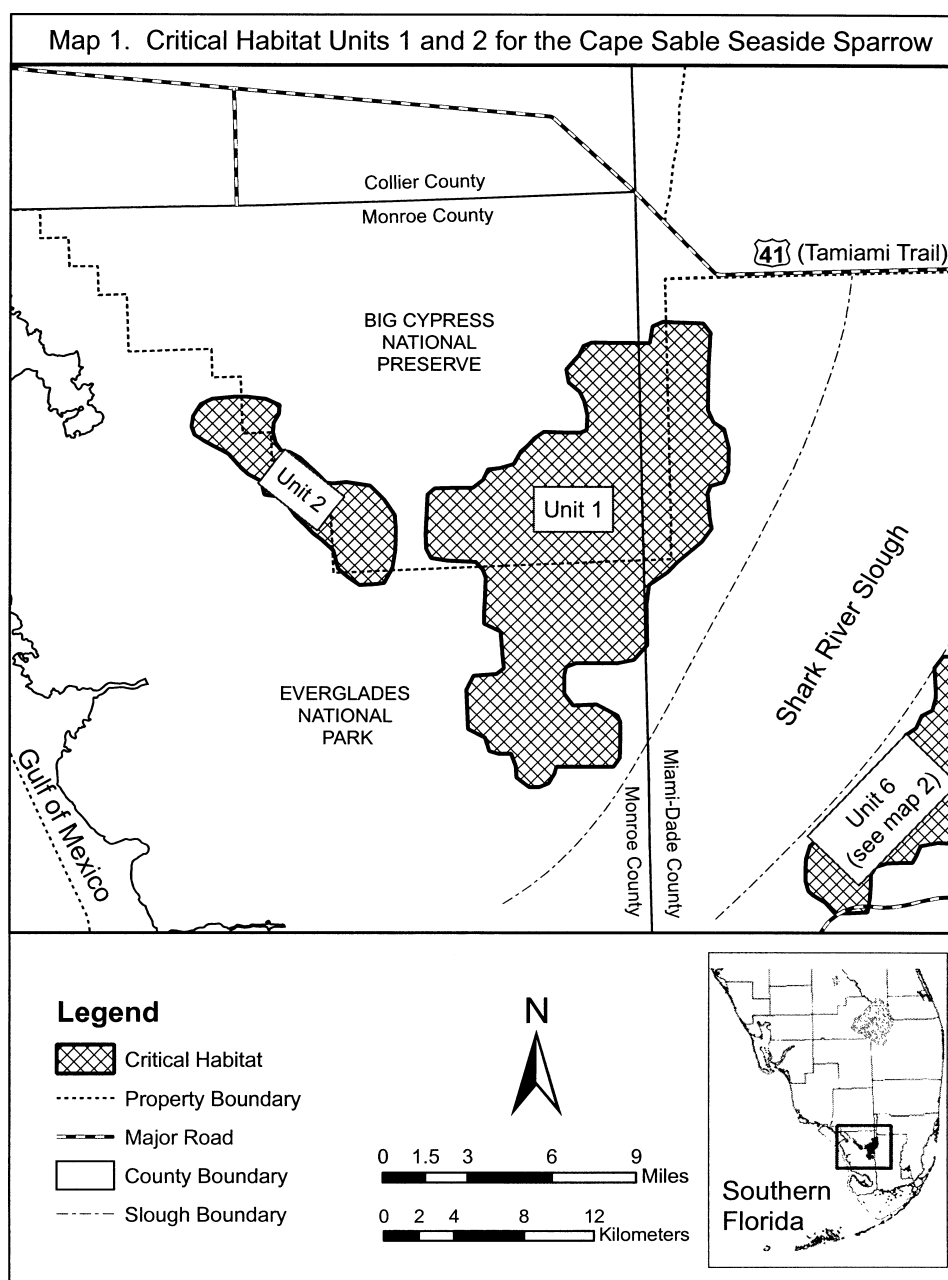
(i) *General description:* Unit 2 consists of 11,402 ac (4,614 ha) of mixed cordgrass marsh and freshwater marl prairie habitat that lies within Everglades National Park and Big Cypress National Preserve in western Miami-Dade County and eastern Monroe County.

(ii) *Coordinates:* From the Big Boy Lake USGS 1:24,000 quadrangle map, Florida, land and water bounded by the following UTM Zone 17 NAD 83 coordinates (E, N): 492105, 2842446; 492056, 2841913; 491748, 2841423; 491699, 2840927; 491850, 2840297; 492135, 2839848; 492631, 2839743; 493232, 2839379; 494098, 2838547; 494675, 2837925; 495173, 2837895; 495821, 2837953; 497182, 2837717; 497993, 2836868; 498545, 2836007;

498601, 2835269; 498531, 2833907; 498361, 2832990; 498167, 2832645; 497878, 2832136; 497396, 2832074; 496453, 2832042; 495799, 2832518; 495257, 2833010; 495006, 2834067; 494409, 2834615; 493847, 2835071; 493344, 2835636; 492857, 2836108; 492393, 2836801; 492033, 2837197; 491131, 2837348; 490947, 2838126; 490255, 2838530; 489785, 2838965; 489084, 2839756; 488227, 2840237; 487680, 2840545; 487225, 2840832; 487052, 2841334; 487160, 2841939; 487600, 2842592; 488273, 2842889; 489569, 2842986; 490215, 2842971; 491320, 2842815; 492105, 2842446.

(iii) **Note:** Map of Units 1 and 2 (Map 1) follows:

**BILLING CODE 4310-55-P**

**BILLING CODE 4310-55-C**

(7) Unit 3: Subpopulation B.

(i) *General description:* Unit 3 consists of 39,053 ac (15,804 ha) of marl prairie habitat that lies within Everglades National Park in southwestern Miami-Dade County.

(ii) *Coordinates:* From the Long Pine Key USGS 1:24,000 quadrangle map, Florida, land and water bounded by the following UTM Zone 17 NAD 83 coordinates (E, N): 526917, 2808910; 527089, 2808114; 527308, 2808109; 528319, 2808057; 528750, 2807801; 528903, 2807333; 529236, 2806425; 529691, 2806032; 530946, 2805892; 531630, 2805875; 532441, 2805501; 532453, 2804873; 531446, 2803970; 530870, 2803902; 530241, 2803890;

529854, 2803763; 529386, 2803611; 529182, 2803097; 529144, 2802662; 529296, 2802167; 529728, 2801965; 530138, 2801955; 530767, 2801940; 531394, 2801843; 531909, 2801666; 532314, 2801438; 532312, 2801384; 532262, 2800430; 531975, 2799918; 531693, 2799543; 531425, 2798649; 531410, 2798077; 531094, 2797430; 530664, 2796649; 530325, 2796193; 529846, 2795632; 529518, 2795640; 528557, 2795500; 528065, 2795485; 527787, 2795300; 527450, 2794981; 527006, 2794692; 526591, 2794511; 526017, 2794525; 525180, 2794982; 524802, 2795155; 523987, 2795393; 522696, 2796271; 522130, 2796639; 521206, 2796853; 520557, 2797169;

520072, 2797481; 519245, 2798319; 518416, 2799104; 517970, 2799879; 517793, 2800456; 517534, 2801062; 517266, 2801260; 516889, 2801515; 516474, 2802425; 516492, 2803162; 516515, 2804116; 516430, 2805100; 516586, 2805888; 517094, 2806530; 517680, 2807007; 517877, 2807248; 518159, 2807596; 518527, 2808078; 519049, 2808174; 520226, 2808227; 520856, 2808239; 521482, 2808115; 521938, 2807749; 522335, 2807194; 522567, 2806642; 522754, 2806447; 523349, 2806159; 523785, 2806121; 524093, 2806387; 524429, 2806706; 524846, 2806996; 525021, 2807428; 525305, 2807858; 525560, 2808206;

525406, 2808619; 525663, 2809050;  
526296, 2809225; 526917, 2808910.

(iii) **Note:** Map of Unit 3 is provided at paragraph (11)(iii) of this entry.

(8) Unit 4: Subpopulation C.

(i) *General description:* Unit 4 consists of 8,059 ac (3,261 ha) of marl prairie habitat that lies within Everglades National Park in western Miami-Dade County.

(ii) *Coordinates:* From the Long Pine Key USGS 1:24,000 quadrangle map, Florida, land and water bounded by the following UTM Zone 17 NAD 83 coordinates (E, N): 534909, 2812258; 535011, 2812832; 535192, 2813089; 535650, 2813200; 536001, 2813209; 536491, 2813232; 536722, 2813349; 536766, 2813714; 536778, 2814185; 536928, 2814601; 537297, 2814644; 537496, 2814936; 537501, 2815128; 537809, 2815540; 538341, 2815806; 538763, 2815900; 539200, 2815890; 539689, 2815825; 540446, 2815981; 540831, 2815972; 541202, 2816120; 541312, 2811350; 541539, 2811327; 541579, 2810820; 541603, 2810365; 541542, 2810035; 541376, 2809690; 541211, 2809380; 541133, 2809067; 541108, 2808754; 541296, 2808574; 541238, 2808331; 541146, 2808159; 540844, 2807992; 540792, 2807993; 540634, 2807979; 540542, 2807824; 540538, 2807632; 540309, 2807586; 539756, 2807879; 539132, 2808138; 538618, 2808605; 538734, 2809056; 538901, 2809401; 539067, 2809781; 538637, 2810071; 538068, 2810417; 537342, 2810784; 536684, 2811114; 536178, 2811179; 535884, 2811326; 535598, 2811787; 535253, 2811988; 534909, 2812258;

(iii) **Note:** Map of Unit 4 is provided at paragraph (11)(iii) of this entry.

(9) Unit 5: Subpopulation D.

(i) *General description:* Unit 5 consists of 10,700 ac (4,330 ha) of marl prairie habitat that lies within the Southern Glades Wildlife and Environmental Area and Everglades

National Park, in southern Miami-Dade County, as depicted on Map 2.

(ii) *Coordinates:* From the Royal Palm Ranger Station SE USGS 1:24,000 quadrangle map, Florida, land and water bounded by the following UTM Zone 17 NAD 83 coordinates (E, N): 546623, 2805929; 547722, 2805064; 547780, 2804591; 548184, 2804651; 548884, 2804634; 549599, 2804511; 550164, 2804008; 550253, 2803378; 549944, 2802896; 549549, 2802504; 549138, 2802148; 549024, 2801801; 549035, 2801539; 549039, 2800997; 549140, 2800122; 549122, 2799389; 548970, 2798904; 548373, 2798813; 547483, 2798958; 546821, 2799061; 545890, 2798962; 545532, 2798621; 545114, 2798003; 544479, 2797791; 543887, 2797946; 543689, 2798405; 543750, 2799468; 543726, 2799940; 543689, 2800535; 543343, 2800736; 542783, 2800715; 542331, 2800865; 541727, 2801212; 541556, 2801356; 541478, 2801759; 541479, 2802493; 541666, 2802977; 542234, 2803313; 542611, 2803670; 542775, 2803928; 543425, 2804034; 544003, 2804037; 544423, 2804027; 544605, 2804337; 544618, 2804843; 544595, 2805350; 544742, 2805626; 545170, 2805930; 545889, 2805999; 546623, 2805929.

(iii) **Note:** Map of Unit 5 is provided at paragraph (11)(iii) of this entry.

(10) Unit 6: Subpopulation E.

(i) *General description:* Unit 6 consists of 22,278 ac (9,016 ha) of marl prairie habitat that lies within Everglades National Park in central Miami-Dade County.

(ii) *Coordinates:* From the Pahayokee Lookout Tower USGS 1:24,000 quadrangle map, Florida, land and water bounded by the following UTM Zone 17 NAD 83 coordinates (E, N): 521841, 2816533; 525940, 2820239; 525968, 2820266; 526694, 2820741; 527084, 2820978; 527388, 2821080; 527374, 2821600; 527360, 2822148; 527457, 2822748; 527735, 2822906; 528070, 2823117; 528417, 2823848; 529028, 2824134; 529238, 2824841;

529250, 2825333; 529197, 2826539; 529735, 2827183; 530668, 2827160; 531953, 2826965; 532774, 2826835; 533193, 2826031; 533510, 2825530; 533777, 2825195; 534094, 2824694; 533885, 2824015; 533544, 2823558; 533230, 2823045; 533211, 2822307; 533415, 2821672; 533623, 2821174; 534292, 2820473; 534774, 2819968; 534844, 2819501; 535075, 2818811; 535283, 2818368; 534879, 2817556; 534463, 2817375; 533609, 2817259; 531442, 2817339; 530965, 2816913; 530377, 2816462; 529199, 2816545; 528179, 2816378; 527947, 2815864; 527689, 2815432; 527085, 2815447; 526289, 2815439; 525570, 2815237; 525284, 2814779; 525270, 2814177; 525195, 2813357; 525067, 2812648; 523941, 2812621; 523173, 2812640; 522612, 2813283; 521991, 2813682; 521696, 2813963; 521545, 2814542; 521562, 2815253; 521603, 2815772; 521841, 2816533.

(iii) **Note:** Map of Unit 6 is provided at paragraph (11)(iii) of this entry.

(11) Unit 7: Subpopulation F.

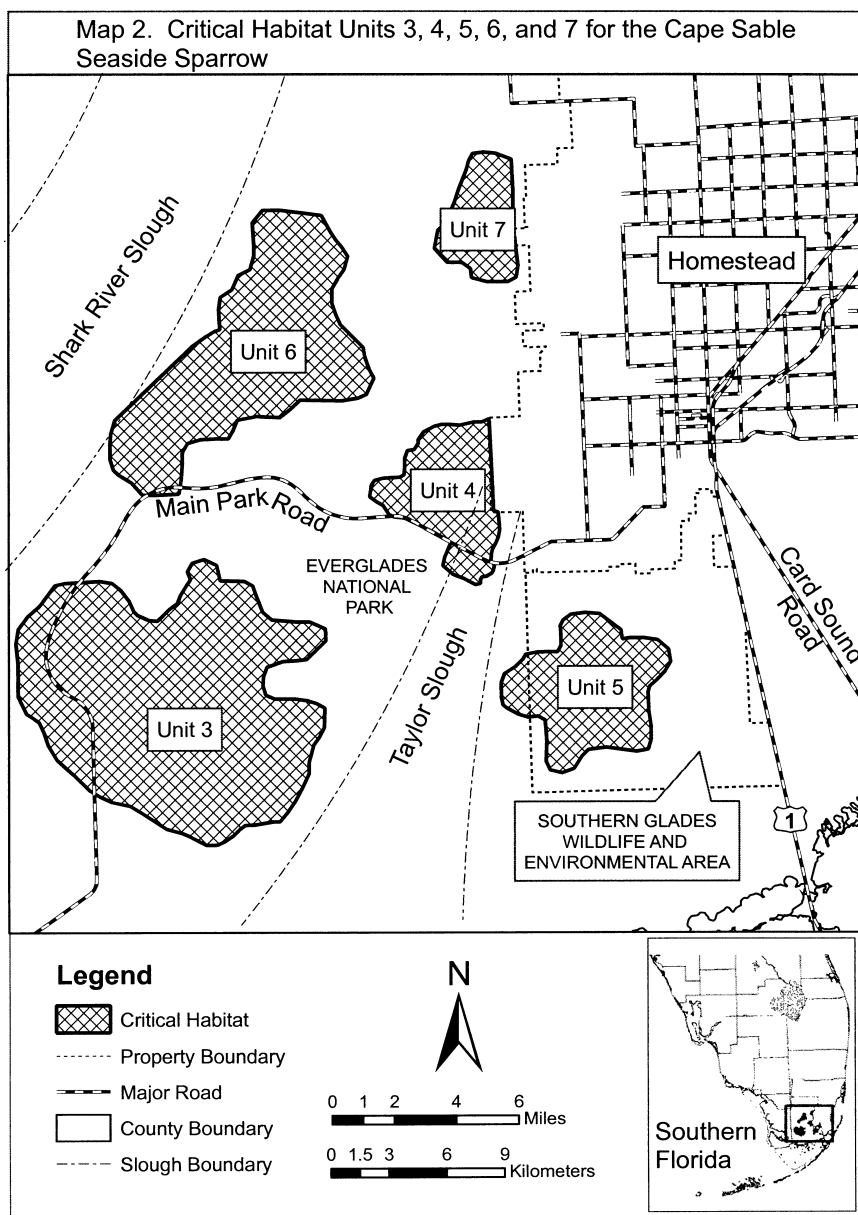
(i) *General description:* Unit 7 consists of 4,958 ac (2,006 ha) of marl prairie habitat that lies along the eastern boundary of Everglades National Park in central Miami-Dade County.

(ii) *Coordinates:* From the Grossman Hammock USGS 1:24,000 quadrangle map, Florida, land and water bounded by the following UTM Zone 17 NAD 83 coordinates (E, N): 541235, 2829890; 541864, 2829822; 542679, 2829488; 542727, 2827880; 542685, 2826187; 542780, 2825068; 542893, 2823965; 542791, 2823409; 542348, 2823192; 541263, 2823219; 540481, 2823430; 540440, 2823903; 539993, 2824245; 539241, 2824264; 538593, 2824996; 538791, 2825899; 539239, 2826324; 539702, 2827361; 539928, 2828001; 540356, 2829021; 540489, 2829454; 540691, 2829833; 541235, 2829890.

(iii) **Note:** Map of Units 3, 4, 5, 6, and 7 (Map 2) follows:

**BILLING CODE 4310-55-P**





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Dated: October 19, 2006.

**David M. Verhey,**

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

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