DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-R4-ES-2013-0108]

[4500030114]

RIN 1018–AZ64

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Brickellia mosieri* (Florida Brickell-bush) and *Linum carteri* var. *carteri* (Carter's Small-flowered Flax)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for *Brickellia mosieri* (Florida brickell-bush) and *Linum carteri* var. *carteri* (Carter's small-flowered flax) under the Endangered Species Act (Act). We are proposing to designate as critical habitat approximately 1,071 ha (2,646 ac) for *Brickellia mosieri* and approximately 1,054

ha (2,605 ac) for *Linum carteri* var. *carteri*. The critical habitat areas proposed for these plants overlap, for a combined total of approximately 1,096 ha (2,707 ac). The proposed critical habitat for both plants is located entirely in Miami-Dade County, Florida. If we finalize this rule as proposed, it will extend the Act's protections to these plants' critical habitats.

DATES: We will accept comments received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** section, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically*: Go to the Federal eRulemaking Portal: *http://www.regulations.gov*. In the Search box, enter FWS-R4-ES-2013-0108, which is the docket number for this rulemaking. Then, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on "Comment Now!"

(2) *By hard copy*: Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS-R4-ES-2013-0108; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

We request that you send comments **only** by the methods described above. We will post all comments on *http://www.regulations.gov*. This generally means that we will post any personal information you provide us (see the **Information Requested** section below for more information).

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at *http://www.fws.gov/verobeach/,* at *http:// www.regulations.gov* at Docket No. FWS-R4-ES-2013-0108, and at the South Florida Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we may develop for this critical habitat designation will also be available at the Fish and Wildlife Service website and Field Office set out above, and may also be included in the preamble and/or at *http://www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: Larry Williams, Field Supervisor, U.S. Fish and Wildlife Service, South Florida Ecological Services Field Office, 1339 20th Street, Vero Beach, FL 32960; by telephone 772–562–3909; or by 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.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, once we determine that a species is endangered or threatened, then we must also designate critical habitat for the species. Designations and revisions of critical habitat can only be completed by issuing a rule. Elsewhere in today's **Federal Register**, we propose to list *Brickellia mosieri* and *Linum carteri* var. *carteri* as endangered species under the Act.

This rule consists of a proposed rule to designate critical habitat for *Brickellia mosieri* and *Linum carteri* var. *carteri*.

The basis for our action. Under the Act, when a species is proposed for listing, we must designate critical habitat for the species to the maximum extent prudent and determinable. Both plants are being proposed for listing as endangered, and therefore we also propose to designate:

- Approximately 1,071 ha (2,646 ac) as critical habitat for *Brickellia mosieri* and approximately 1,054 ha (2,605 ac) for *Linum carteri* var. *carteri*. The critical habitat proposed for these plants overlap, for a combined total of approximately 1,096 ha (2,707 ac). The proposed critical habitat for both plants is located entirely in Miami-Dade County, Florida.
- The proposed critical habitat for both plants includes both occupied and unoccupied habitat. The Service determined that the unoccupied units are essential for the conservation of the plants, to provide for the necessary expansion of current *Brickellia mosieri* and *Linum carteri* var. *carteri* population(s), and for reestablishment of populations into areas where these plants previously occurred.

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species.

We are preparing an economic analysis of the proposed designations of critical habitat. We are preparing an analysis of the economic impacts of the proposed critical habitat designations and related factors. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek additional public review and comment.

We will seek peer review. We are seeking comments from knowledgeable individuals with scientific expertise to review our analysis of the best available science and application of that science and to provide any additional scientific information to improve this proposed rule. Because we will consider all comments and information we receive during the comment period, our final designations may differ from this proposal.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned governmental agencies,

Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as "critical habitat" under section 4 of the Act (16 U.S.C. 1531 *et seq*.), including whether there are threats to *Brickellia mosieri* or *Linum carteri* var. *carteri* from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat is not prudent.

(2) Specific information on:

(a) The amount and distribution of *Brickellia mosieri* and *Linum carteri* var. *carteri* and their habitats;

(b) What may constitute "physical or biological features essential to the conservation of the species," within the geographical range currently occupied by these plants;

(c) Where these features are currently found;

(d) Whether any of these features may require special management considerations or protection;

(e) What areas, that were occupied at the time of listing (or are currently occupied) and that contain features essential to the conservation of these plants, should be included in the designation and why; and

(f) What areas not occupied at the time of listing are essential for the conservation of these plants and why.

(3) Land use designations and current or planned activities in the areas occupied by *Brickellia mosieri* or *Linum carteri* var. *carteri* or proposed to be designated as critical habitat, and possible impacts of these activities on these plants and proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on *Brickellia mosieri* and *Linum carteri* var. *carteri* and proposed critical habitat.

(5) Any probable economic, national security, or other relevant impacts that may result from designating any area that may be included in the final designation. We are particularly interested in any impacts on small entities, and the benefits of including or excluding areas from the proposed designation that are subject to these impacts.

(6) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act.

(7) Information specific to the management of pine rocklands under Miami-Dade County's Environmentally Endangered Lands Covenant Program that might allow us to evaluate potential exclusions.

(8) 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.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments **only** by the methods described in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on *http://www.regulations.gov*. You may request at the top of your document that we withhold personal information such as your street address, phone number, or e-mail address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *http://www.regulations.gov*, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, South Florida Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Previous Federal Actions

All previous Federal actions are described in the proposal to list *Brickellia mosieri* and *Linum carteri* var. *carteri* as endangered species under the Act published elsewhere in today's **Federal Register**.

Critical Habitat

Background

It is our intent to discuss below only those topics directly relevant to the designation of critical habitat for *Brickellia mosieri* and *Linum carteri* var. *carteri* in this section of the proposed rule. For more information on the taxonomy, life history, habitat, and population descriptions of these plants, please refer to the proposed listing rule published elsewhere in today's **Federal Register**.

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

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

(a) Essential to the conservation of the species and

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

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

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources

management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

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

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific

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

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

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

based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

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

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, would continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may

still result in jeopardy findings in some cases. These protections and conservation tools would continue to contribute to recovery of these plants if we list *Brickellia mosieri* and *Linum carteri* var. *carteri*. 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 (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and its implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist:

(1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or

(2) Such designation of critical habitat would not be beneficial to the species.

There is no evidence that the designation of critical habitat for *Brickellia mosieri* or *Linum carteri* var. *carteri* would result in an increased threat from taking (collection) or other human activity for these plants. Therefore, in the absence of finding that the designation of critical habitat would increase threats to a species, if there are any benefits to a critical habitat designation, then it is prudent to designate critical habitat. Here, the potential benefits of

designation include: (1) Triggering consultation under section 7 of the Act, in new areas for actions in which there may be a Federal nexus where it would not otherwise occur because, for example, it is or has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species.

Therefore, because we have determined that the designation of critical habitat would not likely increase the degree of threat to these plants and may provide some measure of benefit, we find that designation of critical habitat is prudent for *B. mosieri* and *L. c*. var. *carteri*.

Critical Habitat Determinability

Having determined that designation of critical habitat is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for *Brickellia mosieri* or *Linum carteri* var. *carteri* is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Information sufficient to perform required analyses of the impacts of the designation is lacking; or

(ii) The biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat.

We reviewed the available information pertaining to the biological needs of *Brickellia mosieri* and *Linum carteri* var. *carteri* and habitat characteristics where the plants are located. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is determinable for *B. mosieri* and *L. c.* var. *carteri*.

Physical or Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features (PBFs) that are essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

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

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

(3) Cover or shelter;

(4) Sites for breeding, reproduction, or rearing (or development) of offspring; and

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

We derived the specific PBFs for *Brickellia mosieri* and *Linum carteri* var. *carteri* from observations of both plants' habitat, ecology, and life history as described below. (For more information, see the **Background** section of our proposed listing rule published elsewhere in today's **Federal Register**.**)** The PBFs for *B. mosieri* and *L. c*. var. *carteri* were defined on the

basis of the habitat features of the areas currently occupied by the plants, which included substrate types, plant community structure, and associated plant species.

Space for Individual and Population Growth

Brickellia mosieri and *Linum carteri* var. *carteri* are endemic to, and occur exclusively within, pine rockland habitat on the Miami Rock Ridge outside of Everglades National Park (ENP) in Miami-Dade County in south Florida. This community and associated native plant species are described in the **Status Assessment for *Brickellia mosieri* and *Linum carteri* var. *carteri*** section in the proposed listing rule published elsewhere in today's **Federal Register**. Pine rocklands are a fire-maintained ecosystem characterized by an open canopy and understory and a limestone substrate (often exposed). Open canopy conditions are required to allow sufficient sunlight to reach the herbaceous layer and permit growth and flowering of *B. mosieri* and *L. c.* var. *carteri*. These plants also require a limestone substrate to provide suitable growing conditions (*e.g.*, pH, nutrients, anchoring, and proper drainage). This combination of ecosystem characteristics (i.e., open canopy and limestone substrate) occurs only in pine rockland habitats (as opposed to rockland hammock, which occurs in conjunction with pine rockland and has a limestone substrate but a closed canopy). Therefore, based on this information, we identify pine rockland habitats to be a PBF for these plants.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Soils—Substrates supporting *Brickellia mosieri* and *Linum carteri* var. *carteri* for anchoring or nutrient absorption are composed of oolitic limestone that is at or very near the

surface. Solution holes occasionally form where the surface limestone is dissolved by organic acids. There is typically very little soil development, consisting primarily of accumulations of low-nutrient sand, marl, clayey loam, and organic debris found in solution holes, depressions, and crevices on the limestone surface (Florida Natural Areas Inventory (FNAI) 2010, p. 62). However, extensive sandy pockets can be found at the northern end of the Miami Rock Ridge, beginning from approximately North Miami Beach and extending south to approximately S.W. 216 Street (which runs east-west approximately one-half mile south of Quail Roost Pineland) (Service 1999, p. 3-162). In this area (the northern Biscayne region), pine rockland soils are primarily quartz sands classified as Opalocka sand-rock outcrop complex. This region has the least exposed rock. In the southern Biscayne, or Redlands, region to the south, pine rockland soils are rockier (i.e., exposed rock is the predominant surface) and are primarily classified as Cardsound silty clay loam-rock outcrop complex. Other soil types that are loosely associated with pine rocklands include Udorthents (in the northern half of the plants' current ranges) and Krome very gravelly loam (in the southern half). Therefore, based on the information above, we identify substrate derived from oolitic limestone to provide anchoring and nutritional requirements to be a PBF for these plants.

Cover or Shelter

Pine rockland is characterized by an open canopy of *Pinus elliottii* var. *densa* (South Florida slash pine). Subcanopy development is rare in well-maintained pine rocklands, with only occasional hardwoods such as *Lysiloma bahamensis* (wild tamarind) and *Quercus virginiana* (live oak) growing to tree size in Miami Rock Ridge pinelands (Snyder *et al.* 1990, p. 253). The

shrub/understory layer is also characteristically open, although the height and density of the shrub layer varies based on fire frequency, with understory plants growing taller and more dense as time since fire increases. Subcanopy/shrub species that typically occur include, but may not be limited to, *Serenoa repens* (saw palmetto), *Sabal palmetto* (cabbage palm), *Coccothrinax argentata* (silver palm), *Thrinax morrisii* (brittle thatch palm), *Myrica cerifera* (wax myrtle), *Rapanea punctata* (myrsine), *Metopium toxiferum* (poisonwood), *Byrsonima lucida* (locustberry), *Dodonaea viscosa* (varnishleaf), *Tetrazygia bicolor* (tetrazygia), *Guettarda scabra* (rough velvetseed), *Ardisia escallonioides* (marlberry), *Psidium longipes* (mangroveberry), *Sideroxylon salicifolium* (willow bustic), and *Rhus copallinum* (winged sumac) (FNAI 2010, pp. 61–62). Short-statured shrubs may include, but are not limited to, *Quercus elliottii* (running oak), *Randia aculeata* (white indigoberry), *Crossopetalum ilicifolium* (Christmas berry), *Morinda royoc* (redgal), and *Chiococca alba* (snowberry) (FNAI 2010, p. 62). Understory vegetation may include, but is not limited to, *Andropogon* spp.; *Schizachyrium gracile, S. rhizomatum*, and *S. sanguineum* (bluestems); *Aristida purpurascens* (arrowfeather threeawn); *Sorghastrum secundum* (lopsided Indiangrass); *Muhlenbergia capillaris* (hairawn muhly); *Rhynchospora floridensis* (Florida white-top sedge); *Tragia saxicola* (pineland noseburn); *Echites umbellata* (devil's potato); *Croton linearis* (pineland croton); *Chamaesyce* spp. (sandmats); *Chamaecrista fasciculata* (partridge pea); *Zamia pumila* (coontie); and *Anemia adiantifolia* (maidenhair pineland fern) (FNAI 2010, p. 62). An open canopy and understory are required to allow sufficient sunlight to reach the herbaceous layer and permit growth and flowering of *Brickellia mosieri* and *Linum carteri* var. *carteri*. Therefore, based on the information above, we identify vegetation composition and structure that allows for adequate sunlight, and space for individual growth and population expansion, to be a PBF for these plants.

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

Brickellia mosieri—The reproductive biology and needs of *Brickellia mosieri* have not been studied (Bradley and Gann 1999, p. 12), and our knowledge of the ecology of the species related to reproduction needs primarily consists of observed habitat requirements and demographic trends. Field observations indicate that the species does not usually occur in great abundance; populations are typically sparse and contain a low density of plants, even in well-maintained pine rockland habitat (Bradley and Gann 1999, p. 12). Bradley (2013b, pers. comm.) estimated that, based on this observation, the minimum habitat patch size to support a sustaining population may be approximately 2 ha (5 ac), although no studies have been conducted to evaluate this estimate. Some occupied sites are less than 2 ha (5 ac) in size, but it is not known whether these populations are sustainable in the long term.

Reproduction is sexual (Bradley and Gann 1999, p. 12), but specific pollinators or dispersers are unknown. Flower morphology suggests the species may be pollinated by butterflies, bees, or both (Koptur 2013, pers. comm.). Wind is one likely dispersal vector (Gann 2013b, pers. comm.), as is seed dispersal by animals. Within pine rocklands, more than 50 species of butterflies have been observed that may act as pollinators for *Brickellia mosieri*. Similarly, a large variety of native and nonnative bee species are known to pollinate pine rockland plants, which may include *B. mosieri*. Declines in pollinator visitation may cause decreased seed set or fruit production, which could lead to lower seedling establishment and numbers of mature plants. The availability of pollinators of appropriate type and sufficient

numbers is necessary for *B. mosieri* to reproduce and ensure sustainable populations. Because the specific type(s) and number of pollinators of *B. mosieri* are unknown, and may include non-generalist species closely tied to pine rockland habitats, preserving and restoring connectivity of pine rockland habitat fragments is essential to the long-term conservation of the species. Sufficient connectivity of pine rockland habitat is also necessary to support establishment of new populations through seed dispersal, and to preserve and enhance genetic diversity.

Therefore, based on the information above, we identify habitat connectivity of sufficient size and suitability, or habitat that can be restored to these conditions that supports the species' growth, distribution, and population expansion, to be a PBF for *Brickellia mosieri*.

Linum carteri var. *carteri*—The reproductive needs of *Linum carteri* var. *carteri* are not well understood. Maschinski (2006, p. 83) reported that *L. c.* var. *carteri* has typical behavior for an early successional plant—plants grow to reproductive status quickly, and populations typically contain a higher density of plants. The minimum habitat patch size to support a sustaining population may be smaller than that needed for *Brickellia mosieri*, possibly as small as 0.4 ha (1 ac) (Bradley 2013b, pers. comm.), although no studies have been conducted to evaluate this estimate. Reproduction is believed to be sexual (Bradley and Gann 1999, p. 71), but specific pollinators are unknown. Flower morphology suggests this variety may also be pollinated by butterflies or bees, or both (Koptur 2013, pers. comm.). Alternatively, Mosquin and Hayley (1967, p. 1278) suggested *L. c.* var. *carteri* may be self-pollinated. Dispersal agents are unknown, but most likely include animal and human-related vectors in the existing landscape.

Therefore, given the uncertainty regarding specific pollinators and dispersal vectors, the importance of connectivity of pine rockland habitat discussed above for *Brickellia mosieri* also applies to *Linum carteri* var. *carteri*. We identify habitat connectivity of sufficient size and suitability, or habitat that can be restored to these conditions to support the plant's growth, distribution, and population expansion, to also be a PBF for *L. c.* var. *carteri.*

Habitats Protected from Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of *Brickellia mosieri* and *Linum carteri* var. *carteri*

Brickellia mosieri and *Linum carteri* var. *carteri* continue to occur in habitats that are protected from incompatible human-generated disturbances and are only partially representative of the plants' historical, geographical, and ecological distributions because their ranges within these habitats has been reduced. These plants are still found in their representative plant communities of pine rocklands. Representative communities are located on Federal, State, local, and private lands that implement habitat management activities which benefit these plants.

Disturbance Regime—Pine rockland is dependent on some degree of disturbance, most importantly from natural or prescribed fires (Loope and Dunevitz 1981, p. 5; Snyder *et al*. 2005, p. 1; Bradley and Saha 2009, p. 4; Saha *et al*. 2011, pp. 169–184; FNAI 2010, p. 63). These fires are a vital component in maintaining native vegetation, such as *Brickellia mosieri* and *Linum carteri* var. *carteri*, which require high light conditions and exposed substrate. Without fire, succession from pine rockland to rockland hammock (an upland tropical hardwood forest occurring over limestone) is rapid, and understory species such as *B. mosieri* and *L. c.* var.

carteri are shaded out by dense canopy and deep leaf litter. In addition, displacement of native species by invasive, nonnative plants often occurs.

Hurricanes and other significant weather events also create openings in the pine rockland canopy (FNAI 2010, p. 63), although these types of disturbances are more sporadic in nature and may pose a threat to small, isolated populations such as those that remain of *Brickellia mosieri* and *Linum carteri* var. *carteri*. For *L. c.* var. *carteri*, mowing may also serve as another means of maintaining an open canopy where the plant occurs in firebreaks, rights-of-way, and cleared fields. However, in order to avoid potential negative impacts, the timing of mowing is critical and should be conducted after flowering has occurred (see *Demographics, Reproductive Biology and Population Genetics of L. c.* var. *carteri* in the proposed listing rule published elsewhere in today's **Federal Register**). Mechanical control of hardwoods may also help maintain an open canopy in pine rockland, but cannot entirely replace fire since it does not have the same benefits related to removal of leaf litter and nutrient cycling. Natural and prescribed fire remains the primary and ecologically preferred disturbance regime for pine rockland.

Brickellia mosieri tends to occur on exposed limestone with minimal organic litter and in areas with only minor amounts of substrate disturbance (Bradley and Gann 1999, p. 11). In contrast, *Linum carteri* var. *carteri* is currently associated with pine rocklands that have undergone some sort of substrate disturbance (*e.g.*, firebreaks, canal banks, edges of railway beds). All known occurrences over the last 15 years have been within either scarified pine rockland, disturbed areas adjacent to or within pine rocklands, or in completely disturbed areas

having a limestone substrate (Bradley and Gann 1999, p. 71; Bradley 2013a, pers. comm.). Inadequate fire management, resulting in closed canopy conditions, may have excluded *L. c.* var. *carteri* (which responds positively to low competition and high light environments) from otherwise suitable pine rocklands habitat (Bradley and Gann 1999, p. 71). Alternatively, this variety may only proliferate on sites where exposed substrate occurs following disturbance; historically this may have occurred following hurricanes (*e.g.,* under tip-up mounds of fallen trees), animal disturbance, or fire (Gann 2013a, pers. comm.). Whether current occurrences of *L. c.* var. *carteri* reflect a need for higher light conditions than *B. mosieri*, a requirement for disturbed substrate, or some combination of these, or other unidentified factors, is unknown, and microhabitat data for either plant are generally lacking. The best available scientific data suggest that both plants require a similar disturbance regime to maintain the open canopy and low litter conditions characteristics of pine rockland habitat, and thereby maintain persistent populations.

Therefore, based on the information above, we identify natural or prescribed fire or other disturbance regimes that maintain the pine rockland habitat, to be a PBF for these plants.

Primary Constituent Elements

Under the Act and its implementing regulations, we are required to identify the PBFs essential to the conservation of both *Brickellia mosieri* and *Linum carteri* var. *carteri* in areas occupied at the time of listing, focusing on the features' primary constituent elements (PCEs). PCEs are those specific elements of the PBFs that provide for a species' life-history processes and are essential to the conservation of the species.

We derived the PCEs for *Brickellia mosieri* and *Linum carteri* var. *carteri* primarily from those PBFs that support the successful functioning of the habitat upon which the plants depend. Both plants are dependent upon functioning pine rockland habitat to provide their fundamental life requirements, such as substrate, species composition and structure of vegetation, disturbance regimes, and connectivity. The PCEs collectively provide the suite of PBFs essential to meeting the requirements of both *B. mosieri* and *L. c.* var. *carteri*.

Based on our current knowledge of the PBFs and habitat characteristics required to sustain these plants' life-history processes, we determine that the PCEs for *Brickellia mosieri* and *Linum carteri* var. *carteri* are:

(1) Areas of pine rockland habitat that contain:

(a) Open canopy, semi-open subcanopy, and understory;

(b) Substrate of oolitic limestone rock; and

(c) A plant community of predominately native vegetation that may include, but is not limited to:

(i) Canopy vegetation dominated by *Pinus elliottii* var. *densa* (South Florida slash pine);

(ii) Subcanopy vegetation that may include, but is not limited to, *Serenoa repens* (saw palmetto), *Sabal palmetto* (cabbage palm), *Coccothrinax argentata* (silver palm), *Thrinax morrisii* (brittle thatch palm), *Myrica cerifera* (wax myrtle), *Rapanea punctata* (myrsine), *Metopium toxiferum* (poisonwood), *Byrsonima lucida* (locustberry), *Dodonaea viscosa* (varnishleaf), *Tetrazygia bicolor* (tetrazygia), *Guettarda scabra* (rough velvetseed), *Ardisia*

escallonioides (marlberry), *Psidium longipes* (mangroveberry), *Sideroxylon salicifolium* (willow bustic), and *Rhus copallinum* (winged sumac);

(iii) Short-statured shrubs that may include, but are not limited to, *Quercus elliottii* (running oak), *Randia aculeata* (white indigoberry), *Crossopetalum ilicifolium* (Christmas berry), *Morinda royoc* (redgal), and *Chiococca alba* (snowberry); and

(iv) Understory vegetation that may include, but is not limited to, *Andropogon* spp.; *Schizachyrium gracile, S. rhizomatum*, and *S. sanguineum* (bluestems); *Aristida purpurascens* (arrowfeather threeawn); *Sorghastrum secundum* (lopsided Indiangrass); *Muhlenbergia capillaris* (hairawn muhly); *Rhynchospora floridensis* (Florida white-top sedge); *Tragia saxicola* (pineland noseburn); *Echites umbellata* (devil's potato); *Croton linearis* (pineland croton); *Chamaesyce* spp. (sandmats); *Chamaecrista fasciculata* (partridge pea); *Zamia pumila* (coontie); and *Anemia adiantifolia* (maidenhair pineland fern).

(2) A disturbance regime that naturally or artificially duplicates natural ecological processes (*e.g.,* fire, hurricanes, or other weather events) and that maintains the pine rockland habitat as described in PCE (1).

(3) Habitats that are connected and of sufficient area to sustain viable populations of *Brickellia mosieri* and *Linum carteri* var. *carteri* in the pine rockland habitat as described in PCE (1).

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographic area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. The features essential to the conservation of *Brickellia mosieri* and *Linum carteri* var. *carteri* may require special management considerations or protection to reduce threats related to habitat loss, fragmentation, and modification primarily due to development; inadequate fire management; nonnative, invasive plants; and sea level rise. (For an indepth discussion of threats, see **Summary of Factors Affecting the Species** in our proposed listing rule published elsewhere in today's **Federal Register.**)

Destruction of the pinelands for economic development has reduced pine rockland habitat on the Miami Rock Ridge outside of ENP by over 98 percent, and remaining habitat in this area is highly fragmented. Both *Brickellia mosieri* and *Linum carteri* var. *carteri* occur on a mix of private and publicly owned lands, only some of which are managed for conservation. Populations of the plants that occur on private land or non-conservation public land are vulnerable to habitat loss, while populations on conservation lands are vulnerable to the effects of habitat degradation if natural disturbance regimes are disrupted (*e.g.*, through inadequate fire management). Prolonged lack of fire in pine rockland typically results in succession to rockland hammock, and displacement of native species by invasive, nonnative plants often occurs. Further development and degradation of pine rocklands increase fragmentation and decrease the conservation value of the remaining functioning pine rockland habitat. In addition, pine rocklands are expected to be further degraded and fragmented due to anticipated sea level rise, which would fully or partially inundate some pine rocklands along the coast and in the southern

portion of Miami-Dade County (near Navy Wells Pineland Preserve), and cause increases in the salinity of the water table and soils resulting in vegetation shifts in additional pine rocklands across the Miami Rock Ridge. Many existing pine rockland fragments are also projected to be developed for housing as the human population grows and adjusts to changing sea levels.

Special management considerations and protections that will address these threats include increased coordination and conservation of these plants and their habitat on Federal lands, and improved habitat restoration and management efforts (including fire management and nonnative plant treatments) of high-priority and high-elevation sites.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify occupied areas at the time of listing that contain the features essential to the conservation of the species. When designating critical habitat, we also consider future recovery efforts and conservation of the species. If after identifying currently occupied areas, a determination is made that those areas are inadequate to ensure conservation of the species, in accordance with the Act and our implementing regulations at 50 CFR 424.12(e), we then consider whether designating additional areas, outside those currently occupied, are essential for the conservation of the species. Although the discussion below of our analyses and proposed critical habitat units are combined for simplicity to address both plants, a separate analysis was

conducted for each plant to determine the specific habitat patches and status (occupied or unoccupied) for each in this proposed designation.

With the exception of one occurrence of *Linum carteri* var. *carteri*, we have determined that all currently known occupied habitat for *Brickellia mosieri* and *L. c.* var. *carteri* meets the definition of critical habitat. We are proposing to designate critical habitat in all geographical areas occupied by these plants at the time of listing (i.e., currently occupied), with the exception of the occurrence of a single individual of *L. c.* var. *carteri* found on a canal bank (not included due to the anomalous nature of the occurrence and because we were not able to define habitat patch boundaries based on the criteria described below). Occupied habitat for each plant consists of a relatively small amount of highly fragmented habitat (number or size of occupied patches), and occupied patches are generally isolated from one another within the landscape (see the *Current Range, Population Estimates, and Status* section for each plant in our proposed listing rule published elsewhere in today's **Federal Register**). In addition, the extent of the geographic areas currently occupied by these plants is substantially (up to 30 percent) smaller than their historical ranges. Based on these factors in relation to the threats to *B. mosieri* and *L. c.* var. *carteri*, we have determined that additional habitat is essential to allow sufficient habitat (total area, and number of patches) and connectivity for the long-term conservation of these plants. Therefore, we are proposing to designate as critical habitat unoccupied habitat both within the geographical area occupied by these plants at the time of listing (i.e., currently occupied), and outside the geographical area occupied by these plants at the time of listing but within their historical range, because such areas are essential for the conservation of these plants. We used habitat and historical occurrence data, and applied general conservation design principles, to

identify unoccupied habitat essential for the conservation of these plants.

To determine the general extent, location, and boundaries of critical habitat, the Service used the following sources of information:

(1) Historical and current records of *Brickellia mosieri* and *Linum carteri* var. *carteri* occurrences and distributions found in publications, reports, personal communications, and associated voucher specimens housed at museums and private collections;

(2) FNAI, Institute for Regional Conservation (IRC), and Fairchild Tropical Botanic Gardens (FTBG) geographic information system (GIS) data showing the location and extent of documented occurrences of *Brickellia mosieri* and *Linum carteri* var. *carteri*;

(3) Reports and databases prepared by botanists with IRC and FTBG. Some of these were funded by the Service, while others were requested or volunteered by biologists with IRC or FTBG;

(4) ESRI ArcGIS online basemap aerial imagery (collected December, 2010) and Digital Orthophoto Quarter Quadrangles (DOQQs; 1-m true color; collected 2004) of Miami-Dade County. Because pine rockland habitat has a recognizable signature in these aerial photographs, the presence of PCEs was partially determined through evaluation of this imagery; and

(5) GIS data depicting soils (Soil Service Geographic (SSURGO) dataset), land cover (South Florida Water Management District Land Use and Cover 2008–2009), and elevation (Dade County LiDAR 88 - 2003) within Miami-Dade County; these data were also used to determine the presence of PCEs.

Due to the lack of existing taxa-specific data or recommendations related to conservation

design (*e.g.*, minimum area or number of populations needed for recovery), we used general conservation design principles in conjunction with the best available data for *Brickellia mosieri* and *Linum carteri* var. *carteri* to identify those unoccupied pine rocklands with the highest conservation quality—that is, those areas that currently provide the best quality habitat and are likely to continue to do so in the future, or areas that have the highest restoration potential. Guidelines for conservation design, which have been developed using island biogeography models, are highly relevant to areas such as the fragmented pine rocklands of the Miami Rock Ridge (i.e., pine rockland islands in a sea of urban and agriculture development). Due to the degree of habitat loss that has already occurred, application of all such guidelines are somewhat limited by the nature of the remaining habitat (*e.g.*, sizes, shapes, and locations of individual habitat patches). As such, we evaluated conservation quality of unoccupied pine rockland habitat using the following three major principles:

(1) Geographic spread—Species that are well distributed across their native ranges are less susceptible to extinction than are species confined to small portions of their ranges.

(2) Size—Large habitat patches are superior to small habitat patches, in that larger areas will support larger populations and will be less negatively impacted by edge effects. All else being equal, conservation design options that include greater areal extent are superior. When comparative circumstances are not otherwise equal, factors such as habitat quality, the presence of specific landscape features, and the spatial arrangement of habitat may offset a solely area-driven selection process.

(3) Connectivity—Habitat that occurs in less fragmented, contiguous patches is preferable to habitat that is fragmented or isolated by urban lands. Habitat patches close to one another serve species of concern better than patches situated far apart. Interconnected patches

are better than isolated patches. Conservation design alternatives should seek, in order of priority:

(a) Continuity within habitat (minimize additional fragmentation);

(b) Connectedness (increase existing habitat patches); and

(c) Proximity (minimize distance between habitat patches).

Using these guiding principles, we evaluated the remaining unoccupied pine rockland habitat on the Miami Rock Ridge outside of ENP with the intent of identifying the largest patches and highest quality habitat available (patches of sufficient size and quality to support populations), in sufficient amount (i.e., sufficient numbers of populations) and spatial arrangement (to provide opportunities for future migration and colonization) to provide for the conservation of *Brickellia mosieri* and *Linum carteri* var. *carteri*. Our evaluation consisted of the following steps:

(1) Using aerial imagery and GIS-based vegetation and soils data, we delineated pine rockland habitat in Miami Dade County outside of ENP. Pine rocklands were identified based on the presence of specific soil types (see "Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements," above) and pine rockland vegetation, including fire-suppressed areas and areas where intergrading with rockland hammock occurs. Some cleared areas occurring over pine rockland soils were also delineated, with the intent that such areas provide opportunities for restoration. The resulting habitat layer consisted of 245 habitat patches.

(2) To maximize geographic spread within the plants' historical ranges, we divided the extent of delineated habitat into five geographic areas (northeast to southwest).

(3) For each plant, we included occupied patches in proposed critical habitat (25 habitat patches for *Brickellia mosieri*, and 6 patches for *Linum carteri* var. *carteri*). One occurrence of *L. c.* var. *carteri* (a single plant found on a canal bank) is not included in proposed critical habitat due to the anomalous nature of the occurrence, and because we were not able to define patch boundaries based on any of the criteria described in (1) above.

(4) For each plant, for the remaining (unoccupied) habitat, we excluded patches below the estimated minimum size for each plant based on expert opinion—2 ha (5 ac) for *Brickellia mosieri,* and 0.4 ha (1 ac) for *Linum carteri* var. *carteri* (see "Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring," above). The resulting layers consisted of 106 habitat patches for *B. mosieri*, and 218 patches for *L. c.* var. *carteri*.

(5) For each plant, for the remaining habitat (unoccupied; 2 ha (5 ac) or ≥0.4 ha (1 ac), *Brickellia mosieri* or *Linum carteri* var. *carteri,* respectively), we assigned a score for eight evaluation criteria designed to assess overall conservation quality of the patch, using the following five major objectives (discussed more indepth below and at *http://www.regulations.gov*):

(a) Onsite habitat quality (intact, open pine rocklands scored higher than cleared patches or patches having a closed canopy);

(b) Patch size (larger patches scored higher);

(c) Surrounding landscape composition (pine rocklands surrounded by less development scored higher);

(d) Connectivity (within each geographic area, pine rockland patches in closer proximity to each other and with greater numbers of neighbors scored higher); and

(e) Vulnerability to sea level rise (pine rockland patches located at higher elevations scored higher).

(6) For each plant, within each geographic area, we used a consequence matrix to evaluate the performance of each unoccupied pine rockland patch across the objectives described above in (5). The resulting total score of each patch was a 0.0–1.0 value, summed across all criteria, where a score of 1.0 indicates the patch in each geographic area that has the highest conservation quality, based on the defined objectives.

Using the results of the consequence matrix for each plant, we evaluated potential "cut-off" values for patch total score by visually assessing and comparing habitat amounts and spatial arrangements between various cut-off values in order to identify the best conservation arrangement. Because taxa-specific data and recommendations were not available regarding how much area is needed for the conservation and recovery of *Brickellia mosieri* and *Linum carteri* var. *carteri*, we applied the general conservation design principles related to connectivity, above, and principles of population viability and metapopulation theory. Small populations and plant species with limited distributions, like those of *B. mosieri* and *L. c.* var. *carteri*, are vulnerable to relatively minor environmental disturbances (Frankham 2005, pp. 135–136), and are subject to the loss of genetic diversity from genetic drift, the random loss of genes, and inbreeding (Ellstrand and Elam 1993, pp. 217–237; Leimu *et al.* 2006, pp. 942–952). These factors increase the probability of both local extinctions and population extinction (Barrett and Kohn 1991, pp. 4, 28; Newman and Pilson 1997, p. 360; Palstra and Ruzzante 2008, pp. 3428–3447). To ameliorate these effects, the recovery of many rare plant species includes the creation of new sites or reintroductions to increase population size (each occurrence, and overall) and

support genetic diversity. Sufficient area is also required to allow *B. mosieri* and *L. c.* var. *carteri* to expand their current distributions (curtailed compared to historical ranges), use habitat depending on the availability of suitable conditions (dynamic, related to time since disturbance within each patch), and maintain their ability to withstand local- or unit-level environmental fluctuations or catastrophes.

Based on our assessment, as described above, we determined that unoccupied pine rockland patches with a total score for conservation quality greater than 0.50 should be proposed for critical habitat designation. In addition, we determined that 15 supplemental pine rockland patches should also be proposed for critical habitat designation for one or more of the following reasons: (1) A population of *Brickellia mosieri* was previously observed in the patch (although not recently enough to consider the population extant at this time); (2) addition of the patch increases conservation quality of adjacent proposed critical habitat; (3) addition of the patch increases connectivity of pine rockland habitat across the landscape; and (4) the patch is located at the north end of these plants' historical ranges (an area not captured using the consequence matrix approach). The last category consists of four patches with conservation quality ≤0.50, due to some combination of lower onsite habitat quality, smaller size, and more development in the surrounding landscape, all of which are related to their position closer to Miami. While these patches may not represent the best habitat currently available, they do provide needed opportunities to increase these plants' geographic spread and restore the plants to the northernmost intact habitat within their historical ranges, which is more heavily impacted, and are essential to the conservation of these plants as discussed above.

Habitat Within the Geographic Range at the Time of Listing

We are proposing seven critical habitat units, six of which contain habitat occupied by *Brickellia mosieri* or *Linum carteri* var. *carteri* or both plants. These units include the mapped extent of each plant's population and contain the PCEs.

Within each of these six proposed units is also unoccupied habitat, which is included based on our determination that such areas are essential to the conservation of these plants, as discussed above. In addition to providing sufficient habitat (area, number of patches, connectivity), this unoccupied habitat allows for the dynamic nature of pine rockland habitat. Conditions within pine rockland patches, such as the openness of the canopy and understory and the accumulation of leaf litter over the limestone substrate, vary greatly across the landscape and across time. Only a portion of the delineated habitat is suitable for *Brickellia mosieri* or *Linum carteri* var. *carteri*, or both plants, at any given time, and the size and location of suitable areas within the population is dynamic over time, being largely driven by the frequency and scale of natural or prescribed fires and other types of disturbance (*e.g.,* for *L. c.* var. *carteri*, mowing or, seemingly, events that disturb the limestone substrate). Although prescribed burns are administered on conservation lands that retain *B. mosieri* or *L. c.* var. *carteri*, or both, populations, fire return intervals and scope are inconsistent. Thus, areas of pine rockland habitat that now support one or both of these plants may not support the plants in the future, as inadequate fire management removes or fragments suitable habitat. Conversely, suitable habitat conditions may return or increase in areas following natural or prescribed fires, allowing opportunities for the plants to expand or colonize these areas in the future.

The delineation of proposed units (occupied plus unoccupied patches) also includes space to plan for the persistence of *Brickellia mosieri* and *Linum carteri* var. *carteri* populations in the face of imminent effects on habitats as a result of sea level rise. Although occupied habitat within each proposed unit contains the PCEs, some of these areas may be altered, as a result of vegetation shifts or salt water intrusion, to an extent which cannot be predicted at this time.

In identifying unoccupied patches with these proposed units, we considered the following additional criteria, which we incorporated into the consequence matrix described above:

(1) *Objective 1 (onsite habitat quality):* Pine rockland areas of sufficient habitat quality to support the growth and reproduction of *Brickellia mosieri* and *Linum carteri* var. *carteri*. In general, areas of intact pine rockland having an open canopy and understory are more likely to support populations of these plants over the long term. In some cases, disturbed or cleared pine rockland areas have also been included in the designation; these areas possess other desirable characteristics (*e.g.,* size, connectivity) and could allow *B. mosieri* or *L. c.* var. *carteri* to expand from areas already occupied by these plants. These areas are typically habitats within or adjacent to pine rocklands that have been affected by natural or anthropogenic impacts, but that retain areas that are still suitable for the plants. These areas would help to off-set the anticipated loss and degradation of habitat occurring or expected from the effects of climate change (such as sea level rise) or due to development.

(2) *Objective 2 (patch size):* Pine rockland areas of sufficient size to support ecosystem

processes for populations of *Brickellia mosieri* or *Linum carteri* var. *carteri*. Given areas of equal habitat quality, larger areas would be ranked higher in our evaluation.

(3) *Objective 3 (surrounding landscape composition):* Pine rockland areas within a suitable landscape to allow for natural disturbance regimes—specifically, prescribed fire—and to minimize negative impacts related to changes in hydrology or nutrient/pollution inputs from the surrounding area. Pine rocklands surrounded by other natural communities will likely provide higher quality habitat in the long term than pine rocklands that are imbedded in a highly urbanized or agricultural matrix. Given areas of equal habitat quality and size, areas with more natural communities and less urban development in the surrounding area would be ranked higher in our evaluation.

(4) *Objective 4 (connectivity):* Pine rockland areas of sufficient amount and arrangement to maintain connectivity of habitat to allow for population sustainability and expansion. Sufficient connectivity of pine rockland habitat will contribute to the availability of pollinators of appropriate type and sufficient numbers to allow *Brickellia mosieri* and *Linum carteri* var. *carteri* to reproduce and ensure sustainable populations, and to allow for population expansion through seed dispersal. Given areas of equal habitat quality, size, and surrounding landscape composition, those patches having more and closer neighbors (i.e., other pine rockland patches) would be ranked higher in our evaluation.

(5) *Objective 5 (vulnerability to sea level rise):* Pine rockland areas of suitable elevation to reduce vulnerability to sea level rise. Those pine rocklands situated at higher elevations are

less likely to be negatively affected by either inundation or vegetation shifts caused by changes in the salinity of the water table and soils associated with sea level rise. Given areas of equal conservation quality as described above, those patches having a higher average elevation would be ranked higher in our evaluation.

A complete description regarding how these objectives were weighted and evaluated in our consequence matrix can be found in the supplemental materials provided with the rule at *http://www.regulations.gov*.

Habitat Outside of the Geographic Range at the Time of Listing

We are proposing one critical habitat unit that is unoccupied by either *Brickellia mosieri* or *Linum carteri* var. *carteri* but has been determined to be essential to the conservation of both plants. This unit represents a portion of these plants' historical ranges in which the plants have been extirpated (see *Current Range, Population Estimates, and Status* for both plants in our proposed listing rule published elsewhere in today's **Federal Register**), and the unoccupied proposed critical habitat patches are the only pine rockland habitat that remains in this area. While the full extent of *B. mosieri*'s historical range is unknown, due to limited data, comparing its current distribution to historical observations suggests that its range has contracted at least 13 percent. Likewise, the historical range of *L. c.* var. *carteri* has been reduced approximately 30 percent. The reductions in the historical ranges of these plants have occurred almost entirely in their northern portions, between Pinecrest and South Miami/Coconut Grove. As noted earlier, little pine rockland habitat has escaped urban development in this area, and those patches that

remain are of lesser conservation quality due to lower onsite habitat quality, smaller patch sizes, and higher amounts of development in the surrounding landscape. While these patches may not represent the best pine rockland habitat currently available, they provide needed habitat to increase these plants' geographic spread to currently unoccupied portions of their historical ranges, and are essential for the conservation of the two plants.

In summary, for occupied habitat within the geographic area occupied by *Brickellia mosieri* or *Linum carteri* var. *carteri* at the time of listing (i.e., currently occupied), we delineated proposed critical habitat unit boundaries by evaluating habitat suitability of pine rockland habitat within this geographic area, and retained those areas that contain some or all of the PCEs to support life-history functions essential for conservation of these plants.

For unoccupied habitat within the geographic area occupied by *Brickellia mosieri* or *Linum carteri* var. *carteri* at the time of listing (i.e., currently unoccupied), we delineated proposed critical habitat unit boundaries by evaluating five objectives incorporated into the consequence matrix (see discussion above).

For habitat outside the geographic area occupied by the plant at the time of listing, we delineated proposed critical habitat unit boundaries based on the availability of remaining pine rockland habitat in the unit. All four available patches were included in the delineation in order to provide sufficient area for *Brickellia mosieri* and *Linum carteri* var. *carteri* to expand their current restricted ranges.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside proposed 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, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the adjacent critical habitat.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in **Proposed Regulation Promulgation** section. In this proposed rule, we present one set of maps that show the proposed critical habitat designations for both plants. In the final rule, we plan to present a separate set of maps for each plant. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *http://www.regulations.gov* at Docket No. FWS-R4-ES-2013-0108, on our Internet site at *www.fws.gov/verobeach/*, and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT**, above).

Proposed Critical Habitat Designation

None of the seven critical habitat units proposed for *Brickellia mosieri* or *Linum carteri* var. *carteri* is currently designated as critical habitat for other species under the Act. Two of the critical habitat units (Units 4 and 7) proposed for these plants overlap areas that have been proposed as critical habitat for the Florida leafwing butterfly (*Anaea troglodyta floridalis*), and three of the critical habitat units (Units 4, 6, and 7) proposed for these plants overlap areas that have been proposed as critical habitat for the Bartram's scrub-hairstreak butterfly (*Strymon acis bartrami*), under the Act (see 78 FR 49831; August 15, 2013), but the Service has not yet made a final determination on these designations.

The seven units (all located in Miami-Dade County, Florida) we propose as critical habitat are: (1) Unit 1: Trinity Pineland and surrounding areas; (2) Unit 2: Nixon Smiley Pineland Preserve and surrounding areas; (3) Unit 3: U.S. Department of Agriculture (USDA) Subtropical Horticultural Research Station and surrounding areas; (4) Unit 4: Richmond Pinelands and surrounding areas; (5) Unit 5: Quail Roost Pineland and surrounding areas; (6) Unit 6: Camp Owaissa Bauer and surrounding areas; and (7) Unit 7: Navy Wells Pineland Preserve and surrounding areas. Because of the highly fragmented nature of the remaining pine rockland habitat, these large overall unit boundaries have been identified that encompass the small, multiple designations within each unit;only the specific patches within the unit boundaries (see unit maps in the **Proposed Regulation Promulgation** section, below) are proposed as critical habitat. Within each unit, we determined the specific habitat patches to include in the proposed critical habitat for each plant, using the methods described above. In many cases, the same habitat patch may be included in the proposed critical habitat for both plants, resulting in

overlap of proposed critical habitat within the unit. Thus, the "combined" area of critical habitat within a unit, which encompasses all proposed habitat patches within a unit, is less than the sum of critical habitat for each plant, due to the large overlap. Table 1 shows land ownership, area, and occupancy of each critical habitat unit, broken down by plant and using the combined approach. Land ownership within the combined proposed critical habitat consists of Federal (12 percent), State (20 percent), County/local (46 percent), and private and other (22 percent; category consists of private individuals, companies, associations, and organizations, including nonprofit organizations). State lands are interspersed within Miami-Dade County Parks and Recreation Department lands that are managed for conservation. Except for Unit 1 (which is entirely unoccupied by either plant), the critical habitat units are composed of both occupied and unoccupied habitat.

TABLE 1. Proposed critical habitat units for *Brickellia mosieri* and *Linum carteri* var. *carteri*. Ownership for each unit is described as the percent (%) of the total and area (hectares = ha, acres = ac) within each unit and across all units.

Unit No.	**Unit Name**	**Ownership**	***Brickellia mosieri***			***Linum carteri* var. *carteri***			**Combined**			**Occupied***
			%	**(ha)**	**(ac)**	**%**	**(ha)**	**(ac)**	**%**	**(ha)**	**(ac)**	
1	Trinity Pineland and surrounding areas	State	23	4	10	21	4	10	21	4	10	No
		County/Local	28	5	12	34	7	16	34	7	16	
		Private/Other	49	9	21	45	9	21	45	9	21	
		Total	*100*	*18*	*43*	*100*	*19*	*48*	*100*	*19*	*48*	
2	Nixon Smiley Pineland Preserve and surrounding areas	State	45	48	119	45	48	119	45	48	119	*B. mosieri* = Yes *L. c.* var. *carteri* = Yes
		County/Local	54	58	143	54	58	143	54	58	143	
		Private/Other	1	1	2	1	1	2	1	1	2	
		Total	*100*	*107*	*264*	*100*	*107*	*264*	*100*	*107*	*264*	
3	USDA Subtropical Horticultural Research Station and surrounding areas	Federal	49	59	145	49	59	145	49	59	145	*B. mosieri* = No *L. c.* var. *carteri* = Yes
		State	38	45	112	38	45	112	38	45	112	
		County/Local	6	7	18	6	7	18	6	7	18	
		Private/Other	7	8	20	7	9	21	7	9	21	
		Total	*100*	*119*	*295*	*100*	*120*	*297*	*100*	*120*	*297*	
4	Richmond Pinelands and surrounding areas	Federal	20	77	191	20	77	191	20	77	191	*B. mosieri* = Yes *L. c.* var. *carteri* = No
		County/Local	59	231	570	61	231	571	59	231	571	
		Private/Other	21	83	205	19	73	180	21	84	208	
		Total	*100*	*391*	*965*	*100*	*381*	*942*	*100*	*392*	*970*	
5	Quail Roost	State	43	42	103	42	42	103	40	42	103	*B. mosieri* = Yes

	Pineland and surrounding areas	County/Local	12	11	28	14	13	33	13	13	33	*L. c.* var. *carteri* = No
		Private/Other	45	43	107	44	43	106	47	49	120	
		Total	*100*	*96*	*238*	*100*	*98*	*242*	*100*	*104*	*256*	
6	Camp Owaissa Bauer and surrounding areas	State	15	18	44	14	18	44	14	18	44	*B. mosieri* = Yes *L. c.* var. *carteri* = Yes
		County/Local	51	58	144	46	58	144	46	58	144	
		Private/Other	34	39	97	40	52	127	40	52	127	
		Total	*100*	*115*	*285*	*100*	*128*	*315*	*100*	*128*	*315*	
7	Navy Wells Pineland Preserve and surrounding areas	State	29	65	159	28	57	141	29	65	159	*B. mosieri* = Yes *L. c.* var. *carteri* = No
		County/Local	56	125	309	61	122	302	55	125	309	
		Private/Other	16	35	87	11	22	54	16	36	89	
		Total	*100*	*225*	*555*	*100*	*201*	*497*	*100*	*226*	*558*	
Total All Units		**Federal**	13	136	336	13	136	336	12	136	336	
		State	21	222	547	20	214	529	20	222	548	
		County/Local	46	495	1,224	47	497	1,228	46	500	1,235	
		Private/Other	20	218	538	20	207	512	22	238	589	
		Total	***100***	***1,071***	***2,646***	***100***	***1,054***	***2,605***	***100***	***1,096***	***2,707***	

Note: Area sizes may not sum due to rounding

* Occupancy varies by patch within each unit, but each unit contains occupied patches for the plant listed. Patch groupings (i.e., into a small number of units) were done to provide a more efficient rule framework.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for *Brickellia mosieri* or *Linum carteri* var. *carteri* or both plants, below. If additional information is needed regarding individual parcels, including unnamed, smaller parcels in private or other ownership, that can be obtained from the U.S. Fish and Wildlife Service, South Florida Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Unit 1: Trinity Pineland and surrounding areas, Miami-Dade County, Florida

Unit 1 consists of approximately 18 ha (43 ac) of habitat for *Brickellia mosieri* and approximately 19 ha (48 ac) for *Linum carteri* var. *carteri*. The critical habitat proposed for these plants overlap in this unit, for a combined total of approximately 19 ha (48 ac) in Miami-Dade County. The unit is comprised of State lands within Trinity Pineland County Park (4 ha (10 ac)); County lands within Tropical Park and A. D. "Doug" Barnes Park (7 ha (16 ac)); and parcels in private ownership (9 ha (21 ac)). This unit is bordered on the north by SW 24 Street, on the south by the Snapper Creek Expressway (State Road (SR) 878), on the east by SW 67 Avenue, and on the west by SW 87 Avenue.

The unit is within the historical ranges of both *Brickellia mosieri* and *Linum*

carteri var. *carteri*, although data are lacking regarding historical occupancy of the specific proposed critical habitat patches in the unit. This unit includes the only remaining pine rockland habitat in this northern portion of the Miami Rock Ridge. None of the habitat in this unit is currently occupied, but it is essential to the conservation of both plants because it serves to protect habitat needed to recover these plants, reestablish wild populations within the historical ranges of these plants, and maintain populations throughout the historical distribution of these plants in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should one or both plants be extirpated from one of their current locations.

Unit 2: Nixon Smiley Pineland Preserve and surrounding areas, Miami-Dade County, Florida

Unit 2 consists of approximately 107 ha (264 ac) of habitat in Miami-Dade County for both *Brickellia mosieri* and *Linum carteri* var. *carteri*; the critical habitat proposed for each of these plants is identical within this unit. The unit is comprised of State lands within Camp Matecumbe, Tamiami Pineland Complex Addition, and Rockdale Pineland (48 ha (119 ac)); County/local lands within Ron Ehman Park, Pine Shore Pineland Preserve, Nixon Smiley Pineland Preserve, Tamiami #8 (Nixon Smiley

Addition) Pineland, and Rockdale Pineland Addition (58 ha (143 ac)); and parcels in private or other ownership (1 ha (2 ac)). This unit is bordered on the north by SW 104 Street, on the south by SW 152 Street (Coral Reef Drive), on the east by U.S. 1 (South Dixie Highway), and on the west by SW 177 Avenue (Krome Avenue).

This unit is composed of both occupied and unoccupied habitat. Some habitat within the unit is currently occupied by *Brickellia mosieri* (3 occurrences; approximately 21 ha (52 ac)) or *Linum carteri* var. *carteri* (1 occurrence; approximately 16 ha (39 ac)) or both plants. This occupied habitat contains some or all of the PCEs, including pine rockland habitat, oolitic limestone substrate, suitable vegetation composition and structure, natural or artificial disturbance regimes, and habitat connectivity of sufficient size and suitability. The PCEs in this unit may require special management considerations or protection to address threats of habitat fragmentation; inadequate fire management; competition with nonnative, invasive plants; and sea level rise. Some of the unoccupied habitat within this unit was historically occupied by *B. mosieri*, although it is not currently occupied by either *B. mosieri* or *L. c.* var. *carteri.* This unoccupied habitat is essential to the conservation of these plants because it serves to protect habitat needed to recover these plants, reestablish wild populations within the historical ranges of these plants, and maintain populations throughout the historical distribution of these

plants in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should one or both plants be extirpated from one of their current locations.

Unit 3: USDA Subtropical Horticultural Research Station and surrounding areas, Miami-Dade County, Florida

Unit 3 consists of approximately 119 ha (295 ac) of habitat for *Brickellia mosieri* and approximately 120 ha (297 ac) for *Linum carteri* var. *carteri*. The critical habitat proposed for each of these plants is nearly identical within this unit, for a combined total of approximately 120 ha (297 ac) in Miami-Dade County. The unit is comprised of Federal lands within the USDA Subtropical Horticultural Research Station (59 ha (145 ac)); State lands within the R. Hardy Matheson Preserve, Ludlam Pineland, Deering Estate at Cutler, and Deering Estate South Addition (45 ha (112 ac)); County/local lands within the Ned Glenn Nature Preserve and Coral Reef Park (7 ha (18 ac)); and parcels in private ownership (9 ha (21 ac)). This unit is bordered on the north by SW 112 Street, on the south by the intersection of Old Cutler Road and Franjo Road (County Road (CR) 977), on the east by the Atlantic Ocean, and on the west by U.S. 1 (South Dixie Highway).

This unit is composed of both occupied and unoccupied habitat. Some of the habitat in the unit is currently occupied by *Linum carteri* var. *carteri* (3 occurrences; approximately 62 ha (153 ac)). This occupied habitat contains some or all of the PCEs, including pine rockland habitat, oolitic limestone substrate, suitable vegetation composition and structure, natural or artificial disturbance regimes, and habitat connectivity of sufficient size and suitability. The PCEs in this unit may require special management considerations or protection to address threats of habitat loss and fragmentation; inadequate fire management; competition with nonnative, invasive plants; and sea level rise, including storm surge. Unoccupied habitat in the unit is essential to the conservation of *Brickellia mosieri* and *L. c.* var. *carteri* because it serves to protect habitat needed to recover these plants, reestablish wild populations within the historical ranges of these plants, and maintain populations throughout the historical distribution of these plants in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should one or both plants be extirpated from one of their current locations.

Unit 4: Richmond Pinelands and surrounding areas, Miami-Dade County, Florida

Unit 4 consists of approximately 391 ha (965 ac) of habitat for *Brickellia mosieri* and approximately 381 ha (942 ac) for *Linum carteri* var. *carteri*. The critical habitat proposed for these plants overlap in this unit, for a combined total of approximately 392 ha (970 ac) in Miami-Dade County. The unit is comprised of Federal lands owned by the U.S. Coast Guard (Homeland Security), U.S. Army Corps of Engineers (Department of Defense), U.S. Prisons Bureau, and the U.S. Department of Commerce/National Oceanic and Atmospheric Administration (77 ha (191 ac)); County/local lands within and adjacent to Larry and Penny Thompson Park, Martinez Pineland, and Zoo Miami (231 ha (571 ac)); and parcels in private or other ownership (84 ha (208 ac)). This unit is bordered on the north by SW 152 Street (Coral Reef Drive), on the south by SW 200 St (Quail Drive/SR 994), on the east by U.S. 1 (South Dixie Highway), and on the west by SW 177 Avenue (Krome Avenue).

This unit is composed of both occupied and unoccupied habitat. Some habitat in the unit is currently occupied by *Brickellia mosieri* (4 occurrences; approximately 267 ha (660 ac)). All four occurrences are within the Richmond Pinelands, which together compose the largest remaining group of contiguous fragments of pine rockland habitat outside of ENP. This occupied habitat contains all of the PCEs, including pine rockland habitat, oolitic limestone substrate, suitable vegetation composition and structure, natural

or artificial disturbance regimes, and habitat connectivity of sufficient size and suitability. The PCEs in this unit may require special management considerations or protection to address threats of habitat loss and fragmentation; inadequate fire management; competition with nonnative, invasive plants; and sea level rise. Some of the unoccupied habitat within this unit was historically occupied by *B. mosieri*, although it is not currently occupied by either *B. mosieri* or *Linum carteri* var. *carteri.* This unoccupied habitat is essential to the conservation of these plants because it serves to protect habitat needed to recover these plants, reestablish wild populations within the historical ranges of these plants, and maintain populations throughout the historical distribution of these plants in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should one or both plants be extirpated from one of their current locations.

Unit 5: Quail Roost Pineland and surrounding areas, Miami-Dade County, Florida

Unit 5 consists of approximately 96 ha (238 ac) of habitat for *Brickellia mosieri* and approximately 98 ha (242 ac) for *Linum carteri* var. *carteri*. The critical habitat proposed for these plants overlap in this unit, for a combined total of approximately 104 ha (256 ac) in Miami-Dade County. The unit is comprised of State lands within Quail

Roost Pineland, Goulds Pineland and Addition, and Silver Palm Groves Pineland (42 ha (103 ac)); County/local lands including Medsouth Park, Black Creek Forest, and Rock Pit #46 (13 ha (33 ac)); and parcels in private ownership (49 ha (120 ac)), including Porter-Russell Pineland owned by the Tropical Audubon Society. This unit is bordered on the north by SW 200 St (Quail Drive/SR 994), on the south by SW 248 Street, on the east by the Florida Turnpike, and on the west by SW 194 Avenue.

This unit is composed of both occupied and unoccupied habitat. Some habitat in the unit is currently occupied by *Brickellia mosieri* (2 occurrences; approximately 28 ha (70 ac)). This occupied habitat contains some or all of the PCEs, including pine rockland habitat, oolitic limestone substrate, suitable vegetation composition and structure, natural or artificial disturbance regimes, and habitat connectivity of sufficient size and suitability. The PCEs in this unit may require special management considerations or protection to address threats of habitat fragmentation; inadequate fire management; competition with nonnative, invasive plants; and sea level rise. Unoccupied habitat in the unit is essential to the conservation of *B. mosieri* and *Linum carteri* var. *carteri* because it serves to protect habitat needed to recover these plants, reestablish wild populations within the historical ranges of these plants, and maintain populations throughout the historical distribution of these plants in Miami-Dade County. It also provides habitat for recovery

in the case of stochastic events, should one or both plants be extirpated from one of their current locations.

Unit 6: Camp Owaissa Bauer and surrounding areas, Miami-Dade County, Florida

Unit 6 consists of approximately 115 ha (285 ac) of habitat for *Brickellia mosieri* and approximately 128 ha (315 ac) for *Linum carteri* var. *carteri*. The critical habitat proposed for these plants overlap in this unit, for a combined total of approximately 128 ha (315 ac) in Miami-Dade County. The unit is comprised of State lands within Owaissa Bauer Pineland Addition, West Biscayne Pineland, Ingram Pineland, and Fuchs Hammock Addition (18 ha (44 ac)); County/local lands including Camp Owaissa Bauer, Pine Island Lake Park, Seminole Wayside Park, and Northrop Pineland (58 ha (144 ac)); and parcels in private ownership (52 ha (127 ac)), including the private conservation area, Pine Ridge Sanctuary. This unit is bordered on the north by SW 248 Street, on the south by SW 312 Street, on the east by SW 112 Avenue, and on the west by SW 217 Avenue.

This unit is composed of both occupied and unoccupied habitat. Some habitat in the unit is currently occupied by either *Brickellia mosieri* (5 occurrences; approximately 27 ha (67 ac)) or *Linum carteri* var. *carteri* (2 occurrences; approximately 9 ha (23 ac)).

This occupied habitat contains some or all of the PCEs, including pine rockland habitat, oolitic limestone substrate, suitable vegetation composition and structure, natural or artificial disturbance regimes, and habitat connectivity of sufficient size and suitability. The PCEs in this unit may require special management considerations or protection to address threats of habitat loss and fragmentation; inadequate fire management; competition with nonnative, invasive plants; and sea level rise. Some of the unoccupied habitat within this unit was historically occupied by *B. mosieri*, although it is not currently occupied by either *B. mosieri* or *L. c.* var. *carteri.* This unoccupied habitat is essential to the conservation of these plants because it serves to protect habitat needed to recover these plants, reestablish wild populations within the historical ranges of these plants, and maintain populations throughout the historical distribution of these plants in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should one or both plants be extirpated from one of their current locations.

Unit 7: Navy Wells Pineland Preserve and surrounding areas, Miami-Dade County, Florida

Unit 7 consists of approximately 225 ha (555 ac) of habitat for *Brickellia mosieri* and approximately 201 ha (497 ac) for *Linum carteri* var. *carteri*. The critical habitat

proposed for these plants overlap in this unit, for a combined total of approximately 226 ha (558 ac) in Miami-Dade County. The unit is comprised of State lands within Florida City Pineland, Palm Drive Pineland, Navy Wells Pineland Preserve (portion), Navy Wells Pineland #23, and Navy Wells Pineland #39 (65 ha (159 ac)); County/local lands including Navy Wells Pineland Preserve (portion) and Sunny Palms Pineland (125 ha (309 ac)); and parcels in private ownership (36 ha (89 ac)). This unit is bordered on the north by SW 320 Street, on the south by SW 368 Street, on the east by U.S. 1 (South Dixie Highway), and on the west by SW 217 Avenue.

This unit is composed of both occupied and unoccupied habitat. Some habitat in the unit is currently occupied by *Brickellia mosieri* (1 occurrence; approximately 134 ha (330 ac)). This occurrence is on Navy Wells Pineland Preserve, which is one of the largest remaining areas of pine rockland habitats outside of ENP. This occupied habitat contains all of the PCEs, including pine rockland habitat, oolitic limestone substrate, suitable vegetation composition and structure, natural or artificial disturbance regimes, and habitat connectivity of sufficient size and suitability. The PCEs in this unit may require special management considerations or protection to address threats of habitat fragmentation; inadequate fire management; competition with nonnative, invasive plants; and sea level rise. Some of the unoccupied habitat within this unit was historically

occupied by *B. mosieri*, although it is not currently occupied by either *B. mosieri* or *Linum carteri* var. *carteri*. This unoccupied habitat is essential to the conservation of these plants because it serves to protect habitat needed to recover these plants, reestablish wild populations within the historical ranges of these plants, and maintain populations throughout the historical distribution of these plants in Miami-Dade County. It also provides habitat for recovery in the case of stochastic events, should one or both plants be extirpated from one of their current locations.

Effects of Critical Habitat Designation

Section 7 Consultation

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

proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

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

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq*.) or a permit from the Service under section 10 of the Act) or that involve some other Federal action

(such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

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

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

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

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

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

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

(3) Are economically and technologically feasible, and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

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

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

for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for *Brickellia mosieri* or *Linum carteri* var. *carteri*. As discussed above, the role of critical habitat is to support life-history needs of these plants and provide for the conservation of these plants.

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

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for *Brickellia mosieri* and *Linum carteri* var. *carteri*. These activities include, but are not limited to:

(1) Actions that would significantly alter the pine rockland ecosystem, including significant alterations to hydrology or substrate. Such activities may include, but are not limited to, residential, commercial, or recreational development, including associated infrastructure.

(2) Actions that would significantly alter vegetation structure or composition, such as suppression of natural fires or excessive prescribed burning, or clearing vegetation for construction of residential, commercial, or recreational development and associated infrastructure.

(3) Actions that would introduce nonnative plant species that would significantly alter vegetation structure or composition. Such activities may include, but are not limited to, residential and commercial development, and associated infrastructure.

Exemptions

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

Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: "The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation." There are Department of Defense lands (owned by the U.S. Coast Guard (Homeland Security) and U.S. Army Corps of Engineers) within the critical habitat designation area; however, none of the lands are covered by an INRMP. Accordingly, no lands that otherwise meet the definition of critical habitat are exempt under section 4(a)(3)(B)(i).

Exclusions

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

Section 4(b)(2) of the Act states that the Secretary shall designate and make

revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise her discretion to exclude the area only if such exclusion would not result in the extinction of the species.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. We are preparing an analysis of economic impacts of the proposed critical habitat designation and related factors.

During the development of a final designation, we will consider economic impacts based on information in our economic analysis, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands where a national security impact might exist. In preparing this proposal, we have determined that some lands within the proposed designation of critical habitat for *Brickellia mosieri* and *Linum carteri* var. *carteri* are owned or managed by the Department of Defense and the Department of Homeland Security. However, we anticipate no impact on national

security. Consequently, the Secretary does not anticipate exercising her discretion to exclude any areas from the final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this proposed rule, we have determined that there are currently no HCPs or other management plans specifically for *Brickellia mosieri* or *Linum carteri* var. *carteri*. Properties under Miami-Dade County's Environmentally Endangered Lands (EEL) Covenant Program (i.e., properties with temporary conservation easements) are required to have habitat management plans in place for the easement's 10-year duration

(which can be renewed). However, because such easements are temporary and voluntary, and without information regarding the type or amount of habitat management that is required for each property or whether there is any mechanism to ensure the management occurs, we do not propose to exclude such areas at this time. We are requesting additional information on these sites. The proposed designation does not include any tribal lands or additional trust resources. We anticipate no impact on tribal lands, partnerships, or HCPs from this proposed critical habitat designation. Accordingly, although it is possible that some areas may be excluded from the final rule based on additional information on conservation easements, at this point the Secretary does not propose to exercise her discretion to exclude any areas from the final designation based on other relevant impacts.

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our proposed critical habitat designation is based on

scientifically sound data, assumptions, and analyses. We will invite these peer reviewers to comment during this public comment.

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

Public Hearings

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in the **FOR FURTHER INFORMATION CONTACT** section. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. Executive Order 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

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

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

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include such businesses as manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with

less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and forestry and logging operations with fewer than 500 employees and annual business less than $7 million. To determine whether small entities may be affected, we will consider the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

Importantly, the incremental impacts of a rule must be *both* significant and substantial to prevent certification of the rule under the RFA and to require the preparation of an initial regulatory flexibility analysis. If a substantial number of small entities are affected by the proposed critical habitat designation, but the per-entity economic impact is not significant, the Service may certify. Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify.

Under the RFA, as amended, and following recent court decisions, Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on

those entities directly regulated by the rulemaking itself, and not the potential impacts to indirectly affected entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the agency is not likely to adversely modify critical habitat. Therefore, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Under these circumstances, it is our position that only Federal action agencies will be directly regulated by this designation. Therefore, because Federal agencies are not small entities, the Service certifies that the proposed critical habitat rule will not have a significant economic impact on a substantial number of small entities.

In conclusion, based on our interpretation of directly regulated entities under the RFA and relevant case law, this designation of critical habitat would only directly regulate Federal agencies, which are not by definition small business entities. As such, we certify that, if promulgated, this designation of critical habitat will not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not expect that the designation of this proposed critical habitat would significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

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

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

(1) This proposed rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and

includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

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

(2) We lack the available economic information to determine if a Small Government Agency Plan is required. Therefore, we defer this finding until completion of the draft economic analysis is prepared under section 4(b)(2) of the Act.

Takings—Executive Order 12630

In accordance with Executive Order 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), this rule is not anticipated to have significant takings implications. As discussed above, the designation of critical habitat affects only Federal actions. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. Once the economic analysis is available, we will review and revise this preliminary assessment as warranted, and prepare a takings implication assessment.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Florida. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to

critical habitat, either for States and local governments, or for anyone else. As a result, the rule would not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation could have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

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

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are proposing to designate critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the species. The areas of proposed critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

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

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq*.). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or

sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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

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

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily

acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes.

We determined that there are no tribal lands that are currently occupied by *Brickellia mosieri* or *Linum carteri* var. *carteri* that contain the features essential for conservation of these plants, and no tribal lands unoccupied by either plant that are essential for the conservation of these plants. Therefore, we are not proposing to designate critical habitat for *B. mosieri* or *L. c.* var. *carteri* on tribal lands.

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;

(2) Use the active voice to address readers directly;

(3) Use clear language rather than jargon;

(4) Be divided into short sections and sentences; and

(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

References Cited

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

Authors

The primary authors of this package are the staff members of the South Florida Ecological Services Field 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— ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

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

2. Amend § 17.96(a) by:

a. Adding Family Linaceae in alphabetical order to the list of families;

b. Adding an entry for "*Brickellia mosieri* (Florida brickell-bush)" in alphabetical order under the family Asteraceae; and

c. Adding an entry for "*Linum carteri* var. *carteri* (Carter's small-flowered flax)" in alphabetical order under the family Linaceae.

The additions read as follows:

§ 17.96 Critical habitat—plants.

(a) *Flowering plants*.

* * * * *

Family Asteraceae: *Brickellia mosieri* (Florida brickell-bush)

(1) Critical habitat units for *Brickellia mosieri* are depicted for Miami-Dade County, Florida, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or

biological features essential to the conservation of *Brickellia mosieri* are:

(i) Areas of pine rockland habitat that contain:

(A) Open canopy, semi-open subcanopy, and understory;

(B) Substrate of oolitic limestone rock; and

(C) A plant community of predominately native vegetation that may include, but is not limited to:

(1) Canopy vegetation dominated by *Pinus elliottii* var. *densa* (South Florida slash pine);

(2) Subcanopy vegetation that may include, but is not limited to, *Serenoa repens* (saw palmetto), *Sabal palmetto* (cabbage palm), *Coccothrinax argentata* (silver palm), *Thrinax morrisii* (brittle thatch palm), *Myrica cerifera* (wax myrtle), *Rapanea punctata* (myrsine), *Metopium toxiferum* (poisonwood), *Byrsonima lucida* (locustberry), *Dodonaea viscosa* (varnishleaf), *Tetrazygia bicolor* (tetrazygia), *Guettarda scabra* (rough velvetseed), *Ardisia escallonioides* (marlberry), *Psidium longipes* (mangroveberry), *Sideroxylon salicifolium* (willow bustic), and *Rhus copallinum* (winged sumac);

(3) Short-statured shrubs that may include, but are not limited to, *Quercus elliottii* (running oak), *Randia aculeata* (white indigoberry), *Crossopetalum ilicifolium* (Christmas berry), *Morinda royoc* (redgal), and *Chiococca alba* (snowberry); and

(4) Understory vegetation that may include, but is not limited to, *Andropogon* spp.; *Schizachyrium gracile, S. rhizomatum*, and *S. sanguineum* (bluestems); *Aristida purpurascens* (arrowfeather threeawn); *Sorghastrum secundum* (lopsided Indiangrass); *Muhlenbergia capillaris* (hairawn muhly); *Rhynchospora floridensis* (Florida white-top sedge); *Tragia saxicola* (pineland noseburn); *Echites umbellata* (devil's potato); *Croton linearis* (pineland croton); *Chamaesyce* spp. (sandmats); *Chamaecrista fasciculata* (partridge pea); *Zamia pumila* (coontie); and *Anemia adiantifolia* (maidenhair pineland fern).

(ii) A disturbance regime that naturally or artificially duplicates natural ecological processes (*e.g.,* fire, hurricanes, or other weather events) and that maintains the pine rockland habitat described in paragraph (2)(i) of this entry.

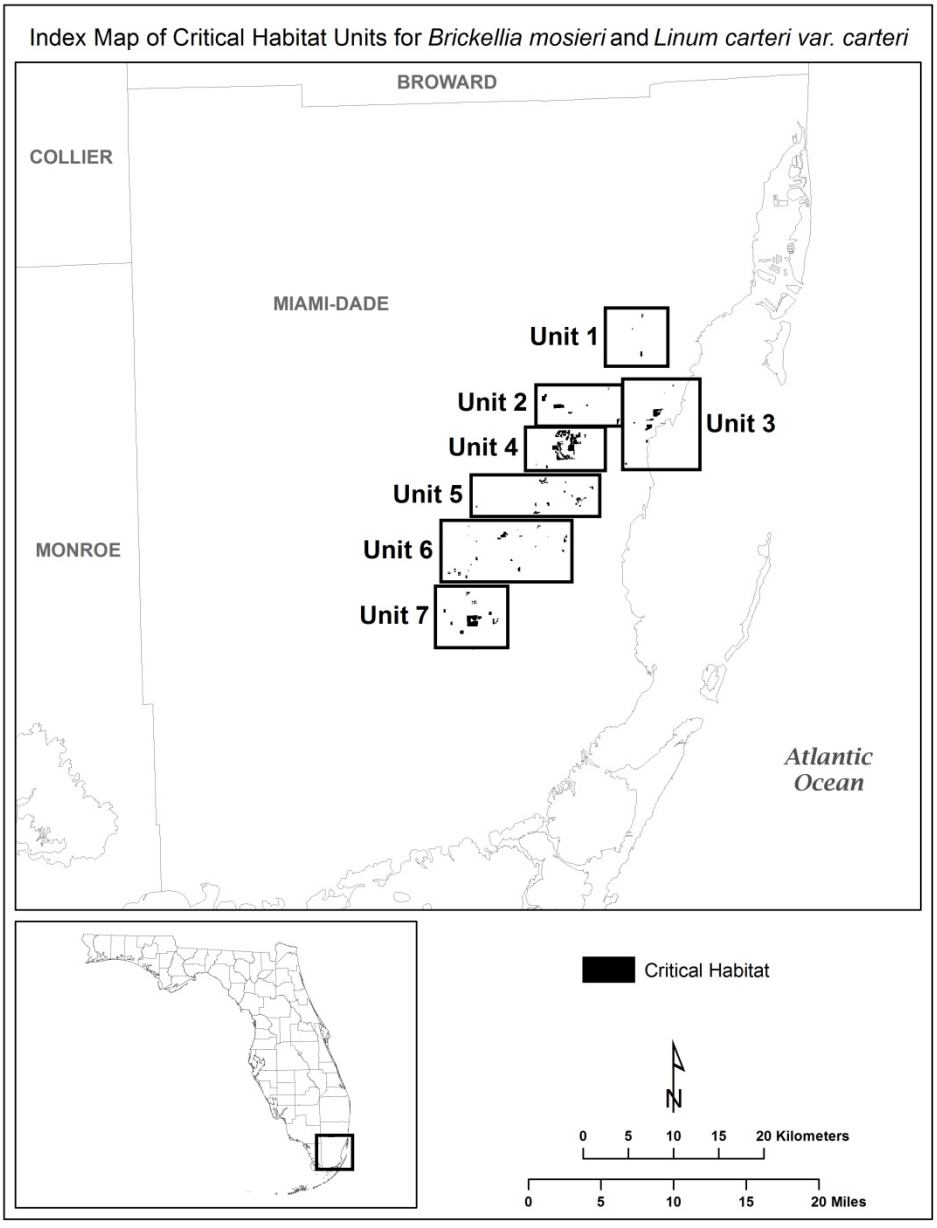
(iii) Habitats that are connected and of sufficient area to sustain viable populations of *Brickellia mosieri* and *Linum carteri* var. *carteri* in the pine rockland habitat described in paragraph (2)(i) of this entry.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located

exists within the legal boundaries on the effective date of this rule.

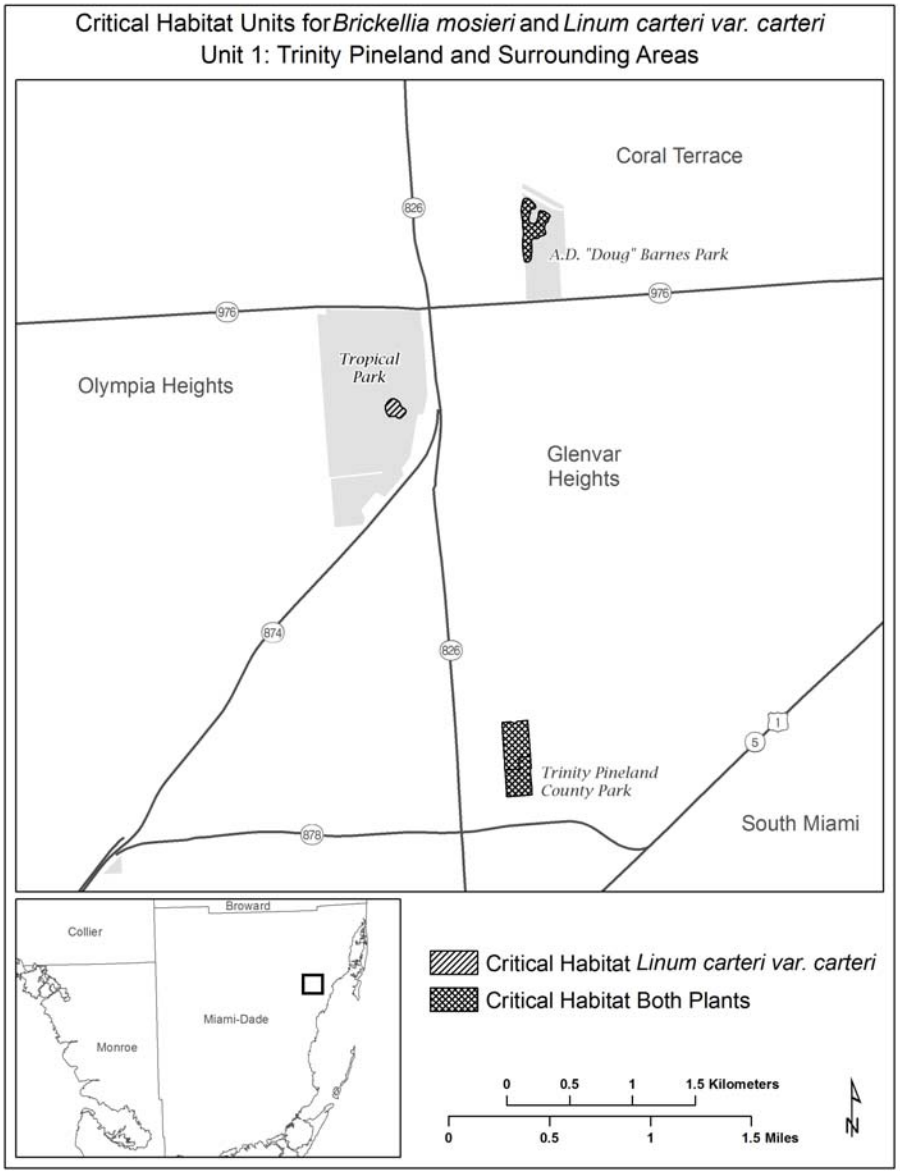
(4) *Critical habitat map units*. Unit maps were developed using ESRI ArcGIS mapping software along with various spatial data layers. ArcGIS was also used to calculate the size of habitat areas. The projection used in mapping and calculating distances and locations within the units was North American Albers Equal Area Conic, NAD 83. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site at *http://www.fws.gov/verobeach/*, at the Federal eRulemaking Portal (*http://www.regulations.gov* at Docket No. FWS-R4-ES-2013-0108), and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map follows:

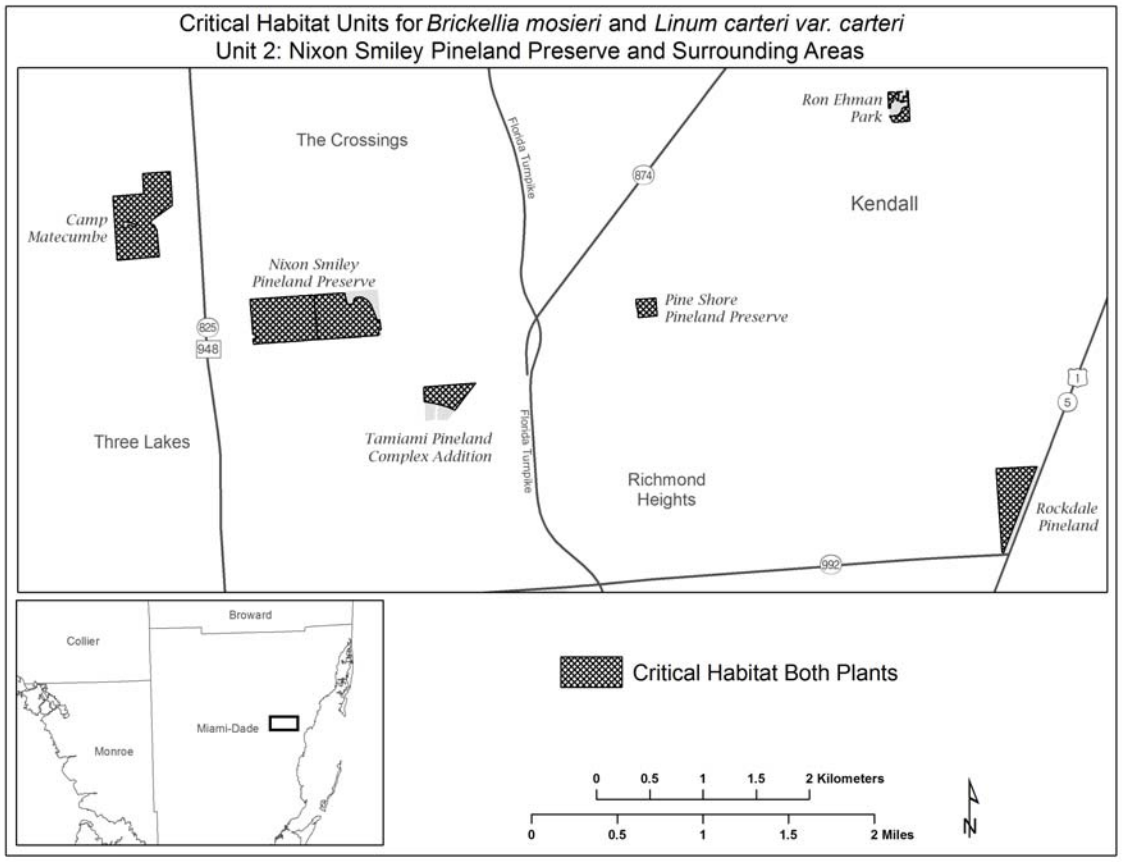


(6) Unit 1: Trinity Pineland and surrounding areas, Miami-Dade County, Florida.

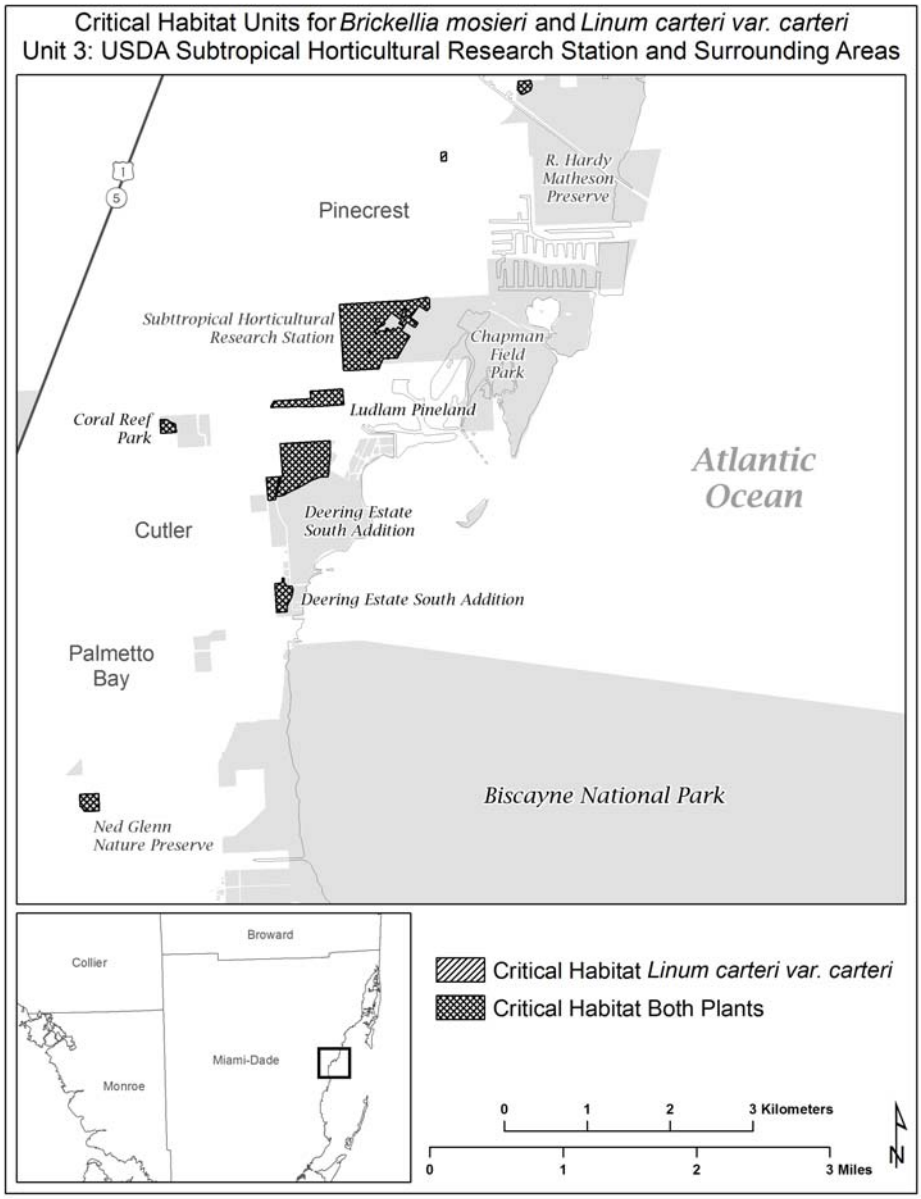
Map of Unit 1 follows:



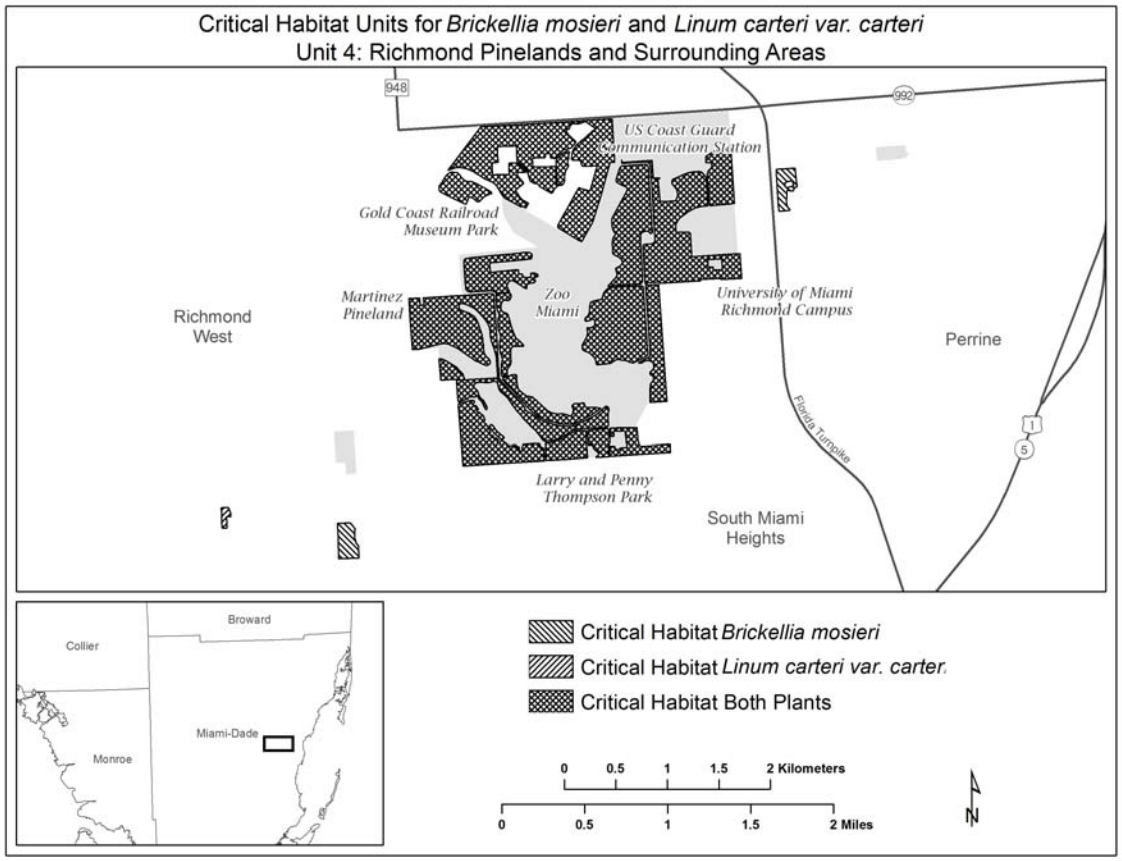
(7) Unit 2: Nixon Smiley Pineland Preserve and surrounding areas, Miami-Dade County, Florida. Map of Unit 2 follows:



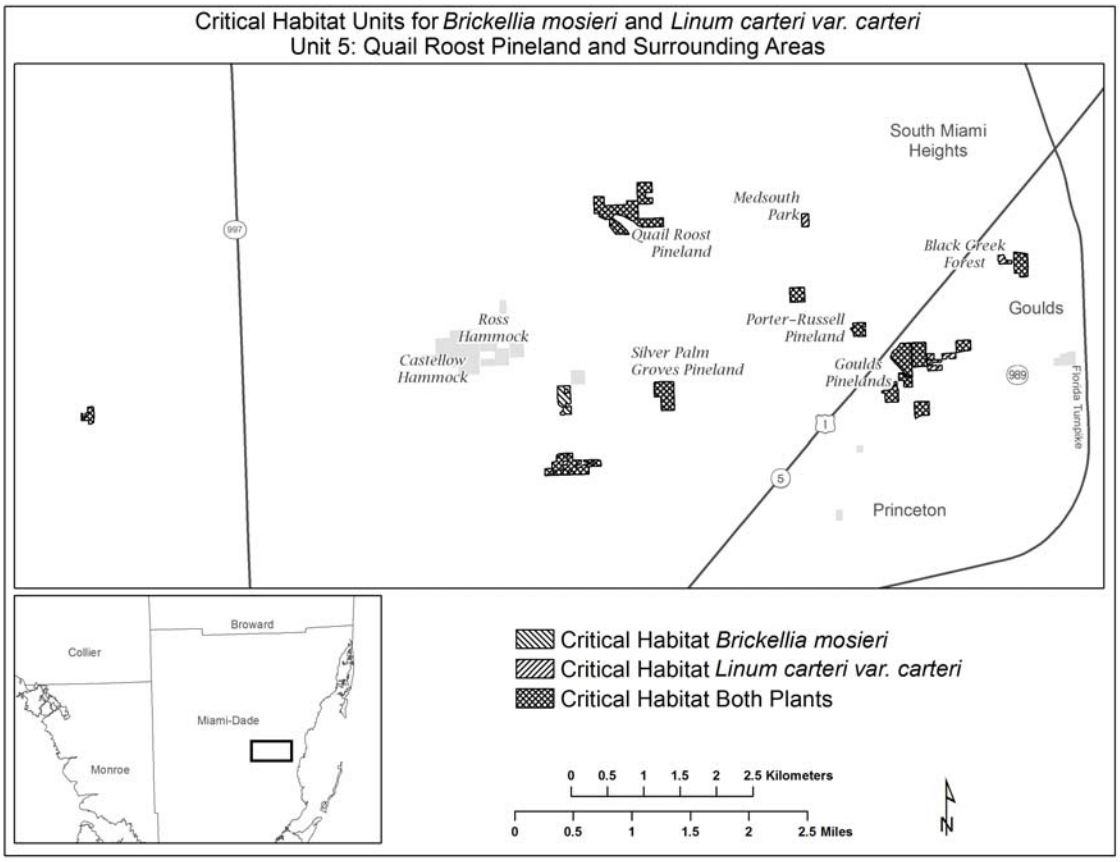
(8) Unit 3: USDA Subtropical Horticultural Research Station and surrounding areas, Miami-Dade County, Florida. Map of Unit 3 follows:



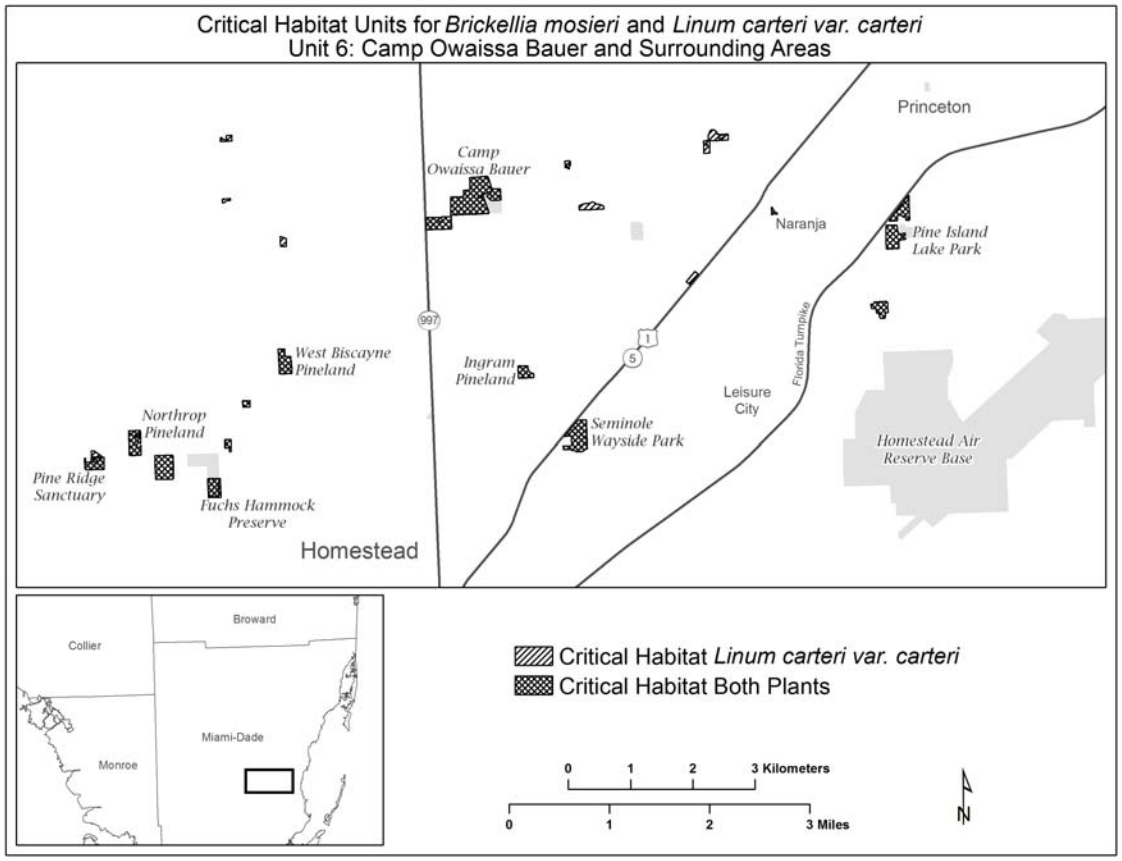
(9) Unit 4: Richmond Pinelands and surrounding areas, Miami-Dade County, Florida. Map of Unit 4 follows:



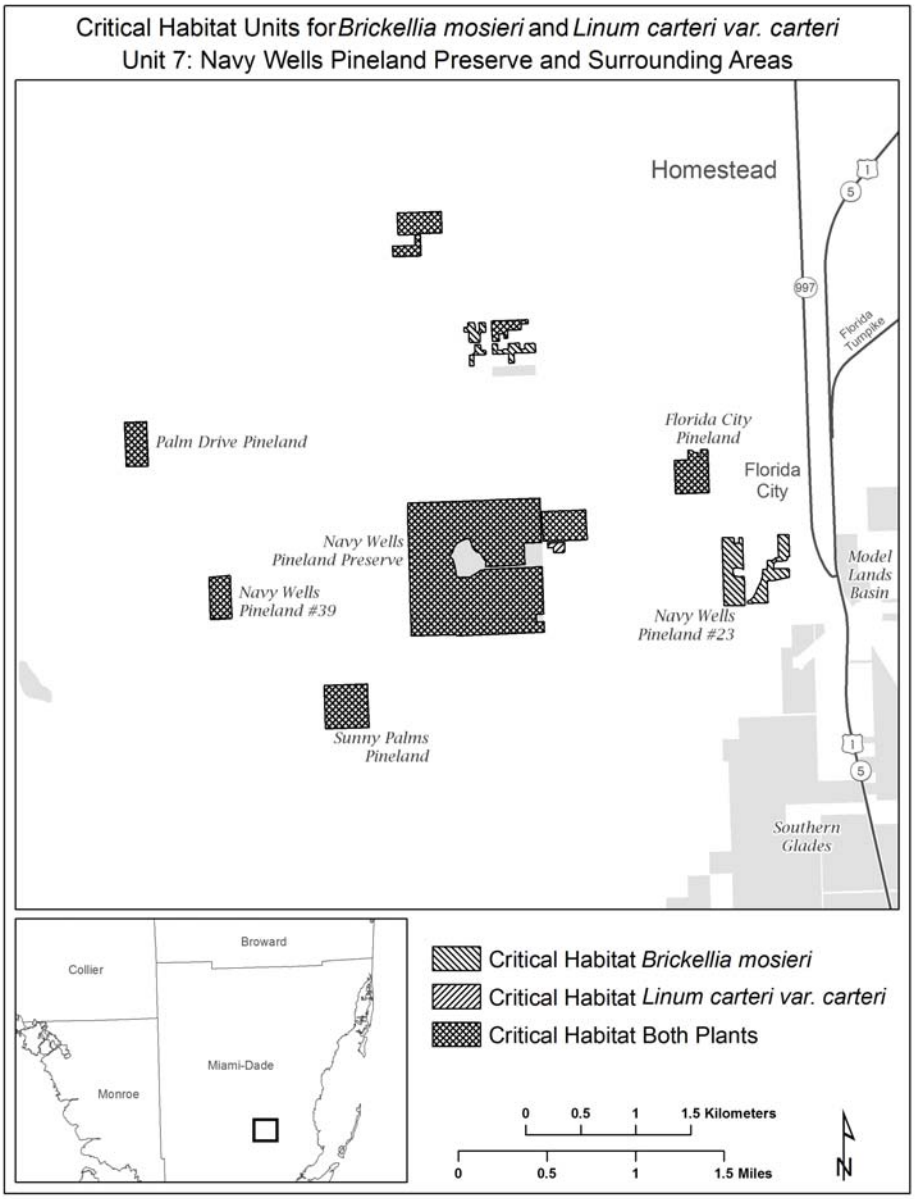
(10) Unit 5: Quail Roost Pineland and surrounding areas, Miami-Dade County, Florida. Map of Unit 5 follows:



(11) Unit 6: Camp Owaissa Bauer and surrounding areas, Miami-Dade County, Florida. Map of Unit 6 follows:



(12) Unit 7: Navy Wells Pineland Preserve and surrounding areas, Miami-Dade County, Florida. Map of Unit 7 follows:



* * * * *

Family Linaceae: *Linum carteri* var. *carteri* (Carter's small-flowered flax)

(1) Critical habitat units for *Linum carteri* var. *carteri* in Miami-Dade County, Florida, are the same as those set forth in this paragraph (a) for Family Asteraceae: *Brickellia mosieri* (Florida brickell-bush). The index map of all of the critical habitat units, and the specific unit maps of critical habitat for Units 1 through 7, for *Linum carteri* var. *carteri* are provided at paragraphs (5), (6), (7), (8), (9), (10), (11), and (12) of the entry for Family Asteraceae: *Brickellia mosieri* (Florida brickell-bush) in this paragraph (a).

(2) Within these areas, the primary constituent elements of, and the statements regarding developed lands in, critical habitat for *Linum carteri* var. *carteri* are identical to those set forth at paragraphs (2) and (3) of the entry for Family Asteraceae: *Brickellia mosieri* (Florida brickell-bush) in this paragraph (a).

(3) *Critical habitat map units*. Unit maps were developed using ESRI ArcGIS mapping software along with various spatial data layers. ArcGIS was also used to

calculate the size of habitat areas. The projection used in mapping and calculating distances and locations within the units was North American Albers Equal Area Conic, NAD 83. The maps in the entry for Family Asteraceae: *Brickellia mosieri* (Florida brickell-bush) in this paragraph (a), as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation for *Linum carteri* var. *carteri*. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site at *http://www.fws.gov/verobeach/*, at the Federal eRulemaking Portal (*http://www.regulations.gov* at Docket No. FWS-R4-ES-2013-0108), and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

* * * * *

Dated: September 26, 2013

Rachel Jacobson

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

Billing Code 4310–55–P

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