DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R4–ES–2022–0104; FF09E21000 FXES1111090FEDR 223]

RIN 1018–BG24

Endangered and Threatened Wildlife and Plants; Threatened Species Status with Section 4(d) Rule for Florida Keys Mole Skink and Designation of Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list the Florida Keys mole skink (*Plestiodon egregius egregius*), a lizard subspecies from the Florida Keys, Florida, as a threatened species and designate critical habitat under the Endangered Species Act of 1973, as amended (Act). This determination also serves as our 12-month finding on a petition to list the Florida Keys mole skink. After a review of the best available scientific and commercial information, we find that listing the species is warranted. Accordingly, we propose to list the Florida Keys mole skink as a threatened species with a rule issued under section 4(d) of the Act (''4(d) rule''). If we finalize this rule as proposed, it would add this species to the List of Endangered and Threatened Wildlife and extend the Act's protections to the species. We also propose to designate critical habitat for the Florida Keys mole skink under the Act. In total, approximately 7,068 acres (2,860 hectares) within Monroe County in the Florida Keys, Florida, fall within the boundaries of the proposed critical habitat designation. We also announce the availability of a draft economic analysis of the proposed designation of critical habitat for the Florida Keys mole skink.

DATES: We will accept comments received or postmarked on or before November 28, 2022. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. eastern time on the closing date. We must receive requests for a public hearing, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by November 14, 2022.

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

(1) *Electronically:* Go to the Federal eRulemaking Portal: *https://www.regulations.gov.* In the Search box, enter FWS–R4–ES–2022–0104, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment.''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R4–ES–2022–0104, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

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

Availability of supporting materials: Supporting materials, such as the species status assessment report, are available at *https://www.regulations.gov* at Docket No. FWS–R4–ES–2022–0104. For the proposed critical habitat designation, the coordinates or plot points or both from which the maps are generated are included in the decision file for this critical habitat designation and are available at *https://www.regulations.gov* at Docket No. FWS–R4–ES–2022–0104 and on the Service's website at *https://www.fws.gov/office/florida-ecological-services/library.* Additional supporting information that we developed for this critical habitat designation, including the conservation strategy, will be available on the Service's website, at *https://www.regulations.gov,* or both.

FOR FURTHER INFORMATION CONTACT: Lourdes Mena, Division Manager, Classification and Recovery, Florida Ecological Services Field Office, 7915 Baymeadows Way, Suite 200, Jacksonville, FL 32256–7517; *lourdes_mena@fws.gov;* telephone 904–731–3134. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, a species warrants listing if it meets the definition of an endangered species (in danger of extinction throughout all or a significant portion of its range) or a threatened species (likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range). If we determine that a species warrants listing, we must list the species promptly and designate the species' critical habitat to the maximum extent prudent and determinable. We have determined that the Florida Keys mole skink meets the definition of a threatened species; therefore, we are proposing to list it as such and proposing a designation of its critical habitat. Both listing a species as an endangered or threatened species and designating critical habitat can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq.*). Additionally, we are proposing a rule under section 4(d) of the Act because prohibitions of section 9 of the Act can be applied to threatened species only by issuing a section 4(d) rule.

What this document does. We propose the listing of the Florida Keys mole skink as a threatened species with a rule under section 4(d) of the Act, and we propose the designation of critical habitat.

The basis for our action. Under the Act, we may determine that a species is an endangered or threatened species because of any of five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or human-made factors affecting its continued existence. We have determined that the Florida Keys mole skink is facing threats associated with climate change, specifically sea level rise, increased high tide flooding, and increased intensity storm events (Factor E), as well as threats due to habitat loss and degradation that result from development, and habitat disturbance (Factor A).

Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary) to designate critical habitat concurrent with listing to the maximum extent prudent and determinable. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protections; and (ii)

specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

Section 4(d) of the Act states that the Secretary shall issue such regulations as she deems necessary and advisable to provide for the conservation of species listed as threatened species and that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants.

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 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 species' biology, range, and population trends, including:

(a) Biological or ecological requirements of the species, including habitat requirements for feeding, breeding, and sheltering;

(b) Genetics and taxonomy;

(c) Historical and current range, including distribution patterns, and the locations of any additional populations of this species;

(d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for the species, its habitat, or both.

(2) Factors that may affect the continued existence of the species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or human-made factors.

(3) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to this species and existing regulations that may be addressing those threats.

(4) Additional information concerning the historical and current status of this species.

(5) Information on regulations that are necessary and advisable to provide for the conservation of the Florida Keys mole skink and that we can consider in developing a 4(d) rule for the species. In particular, information concerning the extent to which we should include any of the section 9 prohibitions in the 4(d) rule or whether we should consider any additional exceptions from the prohibitions in the 4(d) rule.

(6) 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 information regarding the following factors that the regulations identify as reasons why designation of critical habitat may be not prudent:

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

(b) Such designation of critical habitat would not be beneficial to the species. In determining whether a designation would not be beneficial, the factors the Services may consider include but are not limited to: Whether the present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or whether any areas meet the definition of ''critical habitat.''

(7) Specific information on:

(a) The amount and distribution of Florida Keys mole skink habitat;

(b) The importance, or role, of inland habitats, such as rockland hammocks and pine rocklands, and low-density development or disturbed areas to Florida Keys mole skink breeding, feeding, sheltering, or dispersal;

(c) Any additional areas occurring within the range of the species, the Upper Keys, Middle Keys, Lower Keys, and Distal Sand Keys Regions of the Florida Keys in Monroe County, Florida, that should be included in the designation because they are occupied at the time of listing and contain the physical or biological features that are essential to the conservation of the species and that may require special management considerations, or are unoccupied at the time of listing and are essential for the conservation of the species; and

(d) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change.

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

(9) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the related benefits of including or excluding specific areas.

(10) Information on the extent to which the description of probable economic impacts in the draft economic analysis is a reasonable estimate of the likely economic impacts and any additional information regarding probable economic impacts that we should consider.

(11) 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, in particular for those based on a conservation program or plan, and why. These may include Federal, State, county, local, or private lands with permitted conservation plans covering the species in the area such as habitat conservation plans, safe harbor agreements, or conservation easements, or non-permitted conservation plans, agreements, or partnerships that would be encouraged by designation of, or exclusion from, critical habitat. Specific information we seek includes the effectiveness of the Monroe County Habitat Conservation Plan (HCP) on Big Pine Key and No Name Key in protecting pine rocklands and rockland hammock habitat and in providing for conservation of the Florida Keys mole skink. If you think we should exclude any additional areas, please provide information regarding the existence of an economic or other relevant impact supporting a benefit of exclusion.

(12) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide substantial information necessary to support a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any

species is an endangered or a threatened species must be made solely on the basis of the best scientific and commercial data available and section 4(b)(2) of the Act directs that the Secretary shall designate critical habitat on the basis of the best scientific information available. 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 **ADDRESSES**.

If you submit information via *https://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *https://www.regulations.gov.*

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *https://www.regulations.gov.*

Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that the species is endangered instead of threatened, or we may conclude that the species does not warrant listing as either an endangered species or a threatened species. For critical habitat, our final designation may not include all areas proposed, may include some additional areas that meet the definition of critical habitat, or may exclude some areas if we find the benefits of exclusion outweigh the benefits of inclusion. In addition, we may change the parameters of the prohibitions or the exceptions to those prohibitions in the 4(d) rule if we conclude it is appropriate in light of comments and new information received. For example, we may expand the prohibitions to include prohibiting additional activities if we conclude that those additional activities are not compatible with conservation of the species. Conversely, we may establish additional exceptions to the prohibitions in the final rule if we conclude that the activities would facilitate or are compatible with the conservation and recovery of the species.

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. We may hold the public hearing in person or virtually via webinar. We will announce any public hearing on our website, in addition to the **Federal Register**. The use of virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Previous Federal Actions

On April 20, 2010, the Service received a petition from the Center for Biological Diversity to list 404 aquatic, riparian, and wetland species from the southeastern United States, including the Florida Keys mole skink, as endangered or threatened species under the Act. The subsequent 90-day finding (76 FR 59836, September 27, 2011) provided that the petition was substantial for 374 of the petitioned species including the Florida Keys mole skink. On October 5, 2017, the Service published a 12-month finding that the Florida Keys mole skink did not warrant listing under the Act (82 FR 46618).

On September 23, 2019, the Center for Biological Diversity filed suit against the Service, alleging the Service did not use the best available scientific data regarding sea level rise and its impacts to the Florida Keys mole skink habitat in its 12-month finding and challenged the adequacy of our significant portion of the range analysis. On September 16, 2020, the Court vacated and remanded the challenged 12-month finding for the Florida Keys mole skink. In April 2021, the Service was ordered, upon agreement with the Center for Biological Diversity, to submit a new finding to the **Federal Register** by September 15, 2022. This finding and proposed rule reflects the updated assessment of the status of the species based on the best available science, including an updated species status assessment for the Florida Keys mole skink (Service 2022, entire).

Supporting Documents

A species status assessment (SSA) team prepared a revised SSA report for the Florida Keys mole skink (Service 2022, entire). The SSA team was composed of Service biologists, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species. In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we sought the expert opinions of nine appropriate specialists regarding the updated SSA report. We received two responses.

I. Proposed Listing Determination

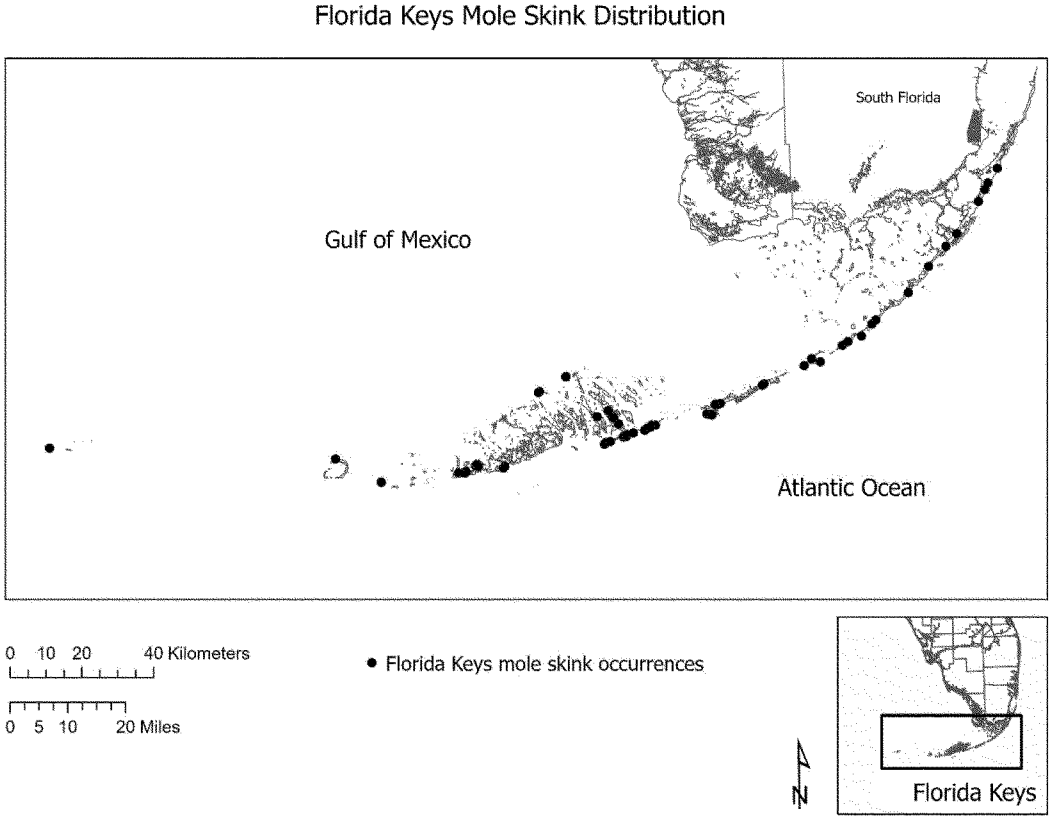
Background

A thorough review of the taxonomy, life history, and ecology of the Florida Keys mole skink (*Plestiodon egregius egregius*) is presented in the SSA report (Service 2022, pp. 8–22). The Florida Keys mole skink is one of five distinct subspecies of mole skinks in Florida, all in the genus *Plestiodon* (previously *Eumeces*) (Brandley *et al.* 2005, pp. 387–388) and is endemic to the Florida Keys. The Florida Keys mole skink is a small, slender lizard with a long, brilliantly colored tail (color variation from orange and red to faded pink) and short legs. Adults reach a total length of approximately 12.7 centimeters (cm) (5 inches (in)) (Florida Natural Areas Inventory (FNAI) 2001, p. 1). The age at first reproduction is estimated at 2 years, and generation time is approximately 4 years (McCoy 2010, p. 641).

The Florida Keys mole skink is semi-fossorial (adapted to digging and living underground) and cryptic in nature. The Florida Keys mole skink moves through sand and soil using a swimming motion and prefers loose soils that allow for easy mobility. Loose soils are also conducive for burrowing and nesting (Christman 1992, p. 179). Ground cover, such as leaf litter, debris, and tidal wrack (organic material and other debris deposited at high tide) provide shelter and a food resource (insects and arthropods that live under ground cover) for Florida Keys mole skink. Florida Keys mole skinks are found on low-lying islands with preferred habitats consisting of beaches, dunes, coastal berms, rockland hammocks, and pine rocklands. However, individuals have been detected in developed areas such as cemeteries, vacant lots, backyards, along roads, and golf courses (Mays and Enge 2016, p. 10; Emerick 2017a, pers. comm.; iNaturalist 2020,

entire). Home range distances for Florida Keys mole skink are estimated at a maximum of 100 m (328 ft) (Gianopulos 2001, p. 81; Mushinsky et al. 2001, p. 54; McCoy et al. 2020, p. 8), and dispersal between islands is limited (Mercier 2018, pp. 18–21).

The Florida Keys is a low-lying chain of small ancient coral reef islands extending 125 miles (mi) (201 kilometers (km)) southwest from the southeastern tip of the Florida peninsula. The Florida Keys are primarily mangrove islands composed of predominantly limestone substrate (ancient coral reef). The average elevation of the Florida Keys is less than 4.0 feet (ft) (1.2 meters (m)) above sea level (Service 2020, p. 9). Florida Keys mole skinks have been documented on 23 islands throughout the Florida Keys (see figure, below). Fifteen of these islands have had detections in the last two decades (years 2000 to 2021), four islands have relatively recent detections (years 1970 to 1999), and four islands have historical detections (before 1970). Systematic surveys have not been conducted for the Florida Keys mole skink across all of the Florida Keys; therefore, the true spatial distribution of populations throughout the Florida Keys is unknown. Consequently, Florida Keys mole skink may occur on Florida Keys other than those reported.



FIGURE—DISTRIBUTION AND OCCURRENCES OF THE FLORIDA KEYS MOLE SKINK

Regulatory and Analytical Framework

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species is an endangered species or a threatened species. On July 5, 2022, the U.S. District Court for the Northern District of California vacated regulations that the Service (jointly with the National Marine Fisheries Service) promulgated in 2019 modifying how the Services add, remove, and reclassify threatened and endangered species and the criteria for designating listed species' critical habitat (*Center for Biological Diversity* v. *Haaland,* No. 4:19–cv–05206–JST, Doc. 168 (*CBD* v. *Haaland*). As a result of that vacatur, regulations that were in effect before those 2019 regulations now govern listing and critical habitat decisions. Our analysis for this proposal applied those pre-2019 regulations. However, given that litigation remains regarding the court's vacatur of those 2019 regulations, we also undertook an analysis of whether the proposal would be different if we were to apply the 2019 regulations. We concluded that the proposal would have been the same if we had applied the 2019 regulations. The analysis based on the 2019 regulations is included in the decision record for this proposal.

The Act defines an ''endangered species'' as a species that is in danger of extinction throughout all or a significant portion of its range, and a ''threatened species'' as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an endangered species or a threatened subspecies because of any of the following factors:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or human-made factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term ''threat'' to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term ''threat'' includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term ''threat'' may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an ''endangered species'' or a ''threatened species.'' In determining whether a species meets either definition, we must evaluate all identified threats by considering the species' expected response and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an ''endangered species'' or a ''threatened species'' only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term ''foreseeable future,'' which appears in the statutory definition of ''threatened species.'' Because the decision in *CBD* v. *Haaland* vacated our 2019 regulations regarding the foreseeable future, we refer to a 2009 Department of the Interior Solicitor's opinion entitled ''The Meaning of 'Foreseeable Future' in Section 3(20) of the Endangered Species Act'' (M–37021). That Solicitor's opinion states that the foreseeable future ''must be rooted in the best available data that allow predictions into the future'' and extends as far as those predictions are ''sufficiently reliable to provide a reasonable degree of confidence in the prediction, in light of the conservation purposes of the Act.'' *Id.* at 13.

It is not always possible or necessary to define the foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the Florida Keys mole skink, including an assessment of the potential threats to the species. The SSA report does not represent our decision on whether the Florida Keys mole skink should be proposed for listing as an endangered or threatened species under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS–R4–ES–2022–0104 on *https://www.regulations.gov.*

To assess Florida Keys mole skink viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the Florida Keys mole skink's ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual species' life-history needs. The next stage involved an assessment of the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species' responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

Summary of Biological Status and Threats

In this discussion, we review the biological condition of the Florida Keys mole skink and its resources, and the threats that influence the species' current and future condition, in order to assess the species' overall viability and the risks to that viability.

Species Needs

The SSA report contains a detailed discussion of the Florida Keys mole skink individual and population requirements (Service 2022, pp. 16–23); we provide a summary here. Based upon the best available scientific and commercial information, and acknowledging existing ecological uncertainties, the resource and demographic needs for breeding, feeding, sheltering, and dispersal of the Florida Keys mole are characterized as:

- Beach and dune, coastal berm, rockland hammock, and pine rockland habitats that provide ground cover in the form of leaf litter and wrack material Florida Keys mole skinks need for nesting, arthropod and insect food sources, and cover;
- Dry, loose, sandy, permeable, or friable (crumbly in texture) soils for digging of nest cavities and for their swimming movement;
- Ground cover such as leaf litter, debris, or tidal wrack (for thermoregulation, food sources, cover from predators, and breeding); and
- Arthropod and insect food sources (found within the ground cover and wrack).

Florida key mole skink abundance, distribution, and life history behaviors (nesting, breeding) are limited to (and defined by) the availability of these resources in the areas of beach and dune, coastal berm, rockland hammock, and pine rockland habitats. While ground cover and insect food sources appear sufficient and occur in adequate amounts, no ecological or quantitative studies have been completed on these factors.

Threats

The main threats affecting the Florida Keys mole skink are related to shifts in climate as a result of increasing greenhouse gas emissions. Sea level rise, more frequent tidal flooding (increase of tides above the mean high tide), and increasing intensity of storm events (such as hurricanes) are the predominant threats to the Florida Keys mole skink and its habitat. Other threats to the Florida Keys mole skink include habitat loss and degradation that result from development and habitat disturbance. We also evaluated existing regulatory mechanisms and ongoing conservation measures. In the SSA, we considered additional threats: overutilization due to recreational, educational, and scientific use; disease; and oil spills and nonnative species. We concluded that, as indicated by the best available scientific and commercial information that these additional threats are currently having little to no impact on the Florida Keys mole skink, and thus their overall effect now and into the future is expected to be minimal. For full descriptions of all threats and how they impact the Florida Keys mole skink, please see the SSA report (Service 2022, pp. 31–51).

Climate Change

The predominant threat currently affecting the Florida Keys mole skink and its habitat are the rapid and intense shifts in climate occurring as a result of increasing greenhouse gas emissions. The entire Florida Keys archipelago is being affected by sea level rise, more frequent high tide flooding, and increased intensity of storm events. In the SSA report and this proposed rule, we discuss the effects of climate change on the Florida Keys mole skink in terms of increasing sea level rise, more frequent tidal flooding, and increased intensity of storm events.

Sea level rise—Within Florida, sea level rise is increasing at a faster rate than globally, making this species especially vulnerable to impacts from sea level rise across its entire range (Carter et al. 2014, pp. 401–403; Park and Sweet 2015, entire; Sweet et al. 2017, p. 25). Accelerated sea level rise in Florida is attributed to shifts in the Florida Current due to added ocean mass brought on by the melting Antarctic and Greenland ice packs and thermal expansion from warming oceans (Park and Sweet 2015, entire; Rahmstorf et al. 2015, entire; Deconto and Pollard 2016, p. 596; Sweet et al. 2017, p. 14).

A majority of the Florida Keys are low-lying (average elevation less than 4.0 feet (ft) (1.2 meters (m)) (Service 2020, p. 9), making them highly susceptible to flooding, and at risk of inundation and saltwater intrusion (Florida Department of Environmental Protection (FDEP) 2012, p. 12; U.S. Geological Survey (USGS) 2017, n.p.). As sea level rises, existing Florida Keys mole skink habitats will become inundated and likely lost. As a result of sea level rise, higher tidal surges, coastal and inland flooding, and saltwater intrusion can further degrade and remove habitat (Carter et al. 2014, pp. 398–400, 403; Wadlow 2016, entire). Because the Florida Keys mole skink inhabits low-lying islands, the species is especially vulnerable to sea level rise across its entire range.

High Tide Flooding—One of the most noticeable impacts from sea level rise is the increased frequency of high tide flooding (Sweet et al. 2020, p. v). High tide flooding begins when coastal water levels exceed the mean higher high-water level (increase of tides above the mean high tide) (Sweet et al. 2014, entire). Frequent flooding above the high tide line is likely to cause flooded areas to become unusable to the Florida Keys mole skink (individuals cannot easily move through wet sand; individuals or nests will be washed away). Even prior to sea level rise inundation, Florida Keys mole skink habitats will likely undergo vegetation shifts triggered by changes to hydrology (wetter), salinity (higher), and more frequent storm surge and tidal flooding (that can result in beach erosion and salinization of soils), even if high tide or surge flooding is infrequent (Saha et al. 2011a, pp. 181–182; Saha et al. 2011b, pp. 82–84; Sweet et al. 2020, pp. 1–4). If high tide or surge flooding occurs frequently, habitat could be highly degraded or eliminated prior to sea level rise inundation. Thus, high tide flooding is likely to result in removal of habitat, displacement of individuals landward to less suitable habitat, and loss of individual Florida Keys mole skinks due to drowning.

Storm Events—Habitat for the Florida Keys mole skink can be degraded or removed by extreme storm events such as hurricanes, storm surges, and floods. Hurricane activity has been above normal since the Atlantic Multi-Decadal Oscillation (the natural variability of the sea surface temperature in the Atlantic Ocean) went into its warm phase around 1992 (National Oceanic and Atmospheric Administration (NOAA) 2019, p. 1). Currently, while the incidence of tropical storms in southeast Florida (including the Florida Keys) is above normal, this frequency is expected to decrease with climate change, but the intensity of the storms is expected to increase (Service 2017, p. 7). The increased intensity could result in larger tidal storm surges, flood events, and greater destruction than historically documented (Service 2017, p. 7).

Information on impacts of hurricanes to the Florida Keys mole skink and its habitat are lacking. However, there is information on impacts to habitat from hurricanes and other strong storms that have occurred in the region. In 2005, Hurricane Wilma (Category 3) passed just north of the Florida Keys causing maximum storm tides 5.0 ft to 6.0 ft (1.5 m to 1.8 m) above mean sea level in Key West and flooding in approximately 60 percent of the city, causing severe beach erosion (Kasper 2007, p. 6). On Boca Chica and Big Pine Key, Hurricane Wilma caused a storm surge of 5.0 ft to 8.0 ft (1.5 m to 2.4 m) (Kasper 2007, p. 9).

In September of 2017, Hurricane Irma (Category 4) caused a storm surge of up to 7.8 ft (2.4 m) in the Lower Keys and Middle Keys (NOAA 2018, pp. 3–4). Hurricane Irma altered whole dune ecosystems, removing sand, vegetation, and litter from these areas via wind and storm surge forces and uprooting many of the maritime hammock ecosystems (Emerick 2017b, p. 6). After Hurricane Irma, Florida Keys mole skink surveys found low numbers of skinks on Sawyer Key in 2018, Content Key in 2020, Big Pine Key in 2018, and Long Key in 2018 (Zambrano 2021, pers. comm.). However, we do not have survey data from before Hurricane Irma to compare how numbers of Florida mole skinks may have changed as a result of the hurricane.

Documented effects to habitat from past storm events can provide insight into the potential damage and loss to the Florida Keys mole skink habitat from future events. These storm events likely disturb and reduce the quantity and quality of Florida Keys mole skink resources (food, cover, nesting habitat), and such impacts may be significant depending upon the severity and proximity of the storm center. Conversely, when storms are not too destructive, vegetative material can be

deposited in localized areas high on the beach and ultimately provide habitat and increased insect food sources for skinks.

The severity and duration of hurricane impacts to the Florida Keys mole skink and its habitat vary based on the intensity and scale of storm events. Localized impacts can vary greatly depending upon not only the strength of the storm but the direction of its approach and how quickly it moves through the area. Storm surges and their intensity can also vary depending on location. The heavy inundation and even complete overwash of some islands during hurricanes may explain the lack of Florida Keys mole skinks detected during post-storm surveys, even when an island has recovered and again contains high-quality suitable habitat. For example, Ohio Key was surveyed between 2015 and 2017, and despite available high-quality suitable habitat and numerous searches, no Florida Keys mole skinks have been located on this island (Emerick 2017b, pers. comm.). However, we do not know if Ohio Key had Florida Keys mole skinks prior to these storm events, so it's possible that although the island contains suitable habitat, Florida Keys mole skinks were not present on the island. Heavy rainstorms, tropical storms, and hurricanes are part of this tropical island system. Over time, higher intensity storms may be a factor reducing the Florida Keys mole skink populations and thereby reducing overall population resiliency and the species' redundancy.

In summary, impacts from climate change have the potential to reduce survival of Florida Keys mole skink at the individual, population, and species level. Sea level rise can degrade existing habitat that supports the Florida Keys mole skink, reducing the habitat features the species needs, and thus reducing population resiliency. Increased high tide flooding and increased intensity of storm events have the potential to further degrade Florida Keys mole skink habitat. Increased high tide flooding and storm events also have the potential to kill skinks directly or to reduce individual survival, which could then lead to a reduction in population resiliency and the species' redundancy. An increase in the intensity and frequency of storms or a direct hit from a strong hurricane could significantly reduce species abundance (reducing population resiliency), and potentially extirpate populations (limiting redundancy), making the Florida Keys mole skink more vulnerable to all other threats. There are no regulatory mechanisms or conservation measures that address the impacts of sea level rise, high tide flooding, or increased intensity of storm events.

Development

Within the Florida Keys, human population growth and development has occurred at a high rate and much of the land available for development has been developed (Zwick and Carr 2006, p. 15; Carr and Zwick 2016, entire). The April 2020 human population census of Monroe County, Florida, was 82,874 individuals (U.S. Census Bureau 2021, n.p.), which is already higher than the 2060 population estimate of 77,038 individuals (Carr and Zwick 2016, p. 28). An assessment of climate change on the Florida Keys assumed that the human population is directly related to remaining land area (Hoegh-Guldberg 2010, p. 14). Consequently, as land area is further reduced due to coastal flooding, erosion, and sea level rise, the human population in the Florida Keys is expected to decline in order to accommodate the loss of land and consequential negative effects on property values and the economy (Zhang et al. 2011, pp. 9–17; Hino et al. 2017, entire).

The Florida Keys were designated as an Area of Critical State Concern in 1974 by the Florida Legislature (§ 380.0552 Florida Statutes) and local ordinances have been adopted to control development growth based on the Florida Keys' carrying capacity related to hurricane evacuation clearance time and to protect the natural environment (FDEO 2020, p. 1). A rate of growth ordinance has been adopted by Monroe County (MC–LDC Chapter 138) and building permit allocation system ordinances have been adopted by the municipalities within the Florida Keys: City of Key West (KW—Code of Ordinances Ch. 108, Art. X), Village of Islamorada (Islamorada—Code of Ordinances Chapter 30, Art. IV, Div. 11), City of Marathon (CM–LDC Chapter 107, Art. 1). These ordinances were adopted in order to provide for the safety of residents in the event of a hurricane evacuation, to protect the significant natural resources, and to acquire environmentally sensitive lands as guided by the State of Florida's Area of Critical State Concern designation. These ordinances guide new development toward areas with infrastructure and away from flood zones and environmentally sensitive areas such as habitat for threatened or endangered species. It is projected that carrying capacity will be reached in 2023 within the municipalities (FDEO 2020, p. 4) and 2026 in the unincorporated Monroe County (MCCPLA 2020, p. 8) and at such a time new building permits will no longer be issued as dictated by the State of Florida's Area of Critical State Concern designation.

Although much of the Florida Keys has been developed, land development ordinances are in place to guide the remaining new development away from environmentally sensitive areas, and land acquisition of environmentally sensitive lands are ongoing. We project new development will not pose a substantive threat to the Florida Keys mole skink. However, as they inhabit the same beaches, coastal berm, and hammock habitat that is desirable for residential and commercial development, activities related to conversion of remaining beach and coastal hammock habitat for new development and redevelopment can impact all of the Florida Keys mole skink's life stages.

In addition to direct impacts from loss of habitat, disturbance to these habitats can reduce groundcover that provides shelter and supports food resources. Additionally, loss of habitat connectivity can impact the Florida Keys mole skink's ability to find mates and disperse to new locations. Roads and human-made structures fragment habitat and Florida Keys mole skink populations, leading to a reduction in population health (resiliency) and genetic differentiation (representation) (Jochimsen et al. 2004, p. 40). Although past development activities have reduced Florida Keys mole skink habitat, individual skinks show some tolerance to habitat alteration and have been documented in developed areas (Mays and Enge 2016, p. 10; Emerick 2017a pers. comm.).

The effects of development have the potential to continue to reduce habitat and individual survival of Florida Keys mole skink and, therefore, may decrease population resiliency. Resiliency may be further reduced due to loss of habitat connectivity and a decrease of dispersal of individuals within populations as habitat becomes fragmented.

Habitat Disturbance From Recreational Activities

The Florida Keys are well known for their outdoor recreational activities, particularly waterfront and beachfront activities, which directly overlap with the habitats used by Florida Keys mole skinks. Hiking, camping, beach combing, and other activities in beach and dune, coastal berm, rockland hammock, and pine rockland habitats can cause direct disturbances to behavior and habitat of Florida Keys mole skink. Beach cleaning directly

removes wrack and vegetative material that act as shelter and a food resource for the Florida Keys mole skink. The behaviors (feeding, movement, and nesting) of individual skinks are likely disturbed by beach and inland recreational activities.

Increased road traffic is a direct consequence of visitors and tourists as is the need for parking. Off-road parking sites, gravel lots, and boat trailer parking can disturb the dry soils and other areas used by Florida Keys mole skinks. Smaller off-road vehicles and golf carts are also sometimes used in communities to get around locally. These small vehicles use non-paved areas that can displace, disturb, or cause direct mortality of individual skinks.

Summary of Threats

The primary threats impacting the Florida Keys mole skink and its habitat are related to climate change, specifically sea level rise, increased high tide flooding, and increased intensity of storm events. The effects of sea level rise, increased high tide flooding, and an increased intensity of storm events can degrade existing habitat that supports the Florida Keys mole skink, leading to reductions in the features that the species needs, and thus to population resiliency. The effects of sea level rise, increased high tide flooding, and an increased intensity of storm events are primarily habitat based, but some individual skinks could also be lost during high tide floods or large storms. Ongoing habitat degradation and loss associated with development and recreational activities will also continue to reduce available habitat for Florida Keys mole skink, thus decreasing population resiliency.

Even minor threats that impact just a few individuals in a population need to be considered for their additive effects. For example, threats such as collection, disease, pesticides, oil spills, and nonnative species may have low impacts on their own, but combined with impacts of other threats, they could further reduce the relatively low numbers of Florida Keys mole skinks. These minor threats (collection, disease, pesticides, oil spills, and nonnative species) were considered cumulatively for their effects to the Florida Keys mole skink, and, while they may reduce the numbers for some individual populations, we currently do not consider these minor threats to have negative effects at the population level (Service 2022, pp. 36–39).

The severity of threats may also be exacerbated by the Florida Keys mole skink's limited distribution. Currently, the existing regulatory mechanisms are not adequate to address the threats to the Florida Keys mole skink from sea level rise, high tide flooding, and increased intensity of storm events. However, regulatory mechanisms that address development or recreational activities provide some protections and conservation lands that overlap with some Florida Keys mole skink habitat provide a conservation benefit to the species (see *Conservation Efforts and Regulatory Mechanisms,* below).

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have not only analyzed individual effects on the species, but we have also analyzed their potential cumulative effects. We incorporate the cumulative effects into our SSA analysis when we characterize the current and future condition of the species. To assess the current and future condition of the species, we undertake an iterative analysis that encompasses and incorporates the threats individually and then accumulates and evaluates the effects of all the factors that may be influencing the species, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative effects analysis.

Conservation Efforts and Regulatory Mechanisms

State Protections

The Florida Keys mole skink species was State listed as threatened by Florida in 1974 but was changed to a State of Florida species of concern in 1978. In 2010, after a species status review by the Florida Fish and Wildlife Conservation Commission (FWC), the Florida Keys mole skink was again found warranted for listing as a State threatened species. A Florida Keys Mole Skink State Action Plan was developed in 2013 (FWC 2013, entire). The goal of the plan is to secure the Florida Keys mole skink within its historical range (FWC 2013, pp. 8–19).

As a threatened species under State law, intentional take and some forms of incidental take of the Florida Keys mole skink are prohibited. The FWC lists several measures to avoid and minimize take during development and habitat management activities, including avoiding and minimizing impacts to coastal strand, coastal dune, pine rockland, and tropical hardwood hammock habitats within the range of the Florida Keys mole skink (FWC 2016, p. 5). Specifically, these measures recommend avoiding the removal of microhabitat features and the prevention of activities that cause soil compaction. Some of these land management activities may be beneficial (*e.g.,* beach habitat restoration activities) to the long-term quality of the natural habitats for the Florida Keys mole skink but can also result in local disturbance or direct mortality of individual skinks.

The Florida Coastal Management Plan designates the Florida Keys as an Area of Critical Concern (FDEP 2014, p. 25). Through the Florida Forever program (and the previous State of Florida Conservation and Recreation Lands and Preservation 2000 Programs), the Monroe County Land Authority and the State of Florida have purchased 5,205 ha (12,862 ac) of Florida Keys land for the protection of natural resources (Florida Department of Economic Opportunity 2020, p. 1, and FDEP 2020, pp. 199, 289). The protection of these lands from development provides direct and indirect conservation benefits for the Florida Keys mole skink.

Several local government plans provide conservation actions for the benefit of the Florida Keys mole skink or provide indirect conservation benefits to the species. The Village of Islamorada, the City of Marathon, Monroe County, and the City of Key West also have comprehensive plans that incorporate native habitat and species protections, although they do not mention the Florida Keys mole skink specifically (City of Marathon 2013, entire; City of Key West, 2013, entire; Monroe County 2016a, entire; Village of Islamorada 2017, entire).

The Florida Keys mole skink also occurs within numerous State Parks, including Zachary Taylor State Park (Key West), the Florida Keys Overseas Heritage Trail (Key West, Big Pine Key, Vaca Key, Long Key, Lower Matecumbe Key, Key Largo), Bahia Honda State Park (Bahia Honda Key), Long Key State Park (Long Key), Lignumvitae Key Botanical State Park (Lower Matecumbe Key), John Pennekamp Coral Reef State Park (Key Largo), and Dagny Johnson Key Largo Hammock Botanical State Park (Key Largo). Active management of these State Parks provides indirect benefits to the Florida Keys mole skinks by protecting and providing habitat through management of beach restoration and nourishment and providing nonnative plant and animal control.

National Wildlife Refuges and National Park Service Lands

The Florida Keys mole skink occurs within multiple National Wildlife

Refuges including the National Key Deer Refuge on Content Key and Big Pine Key, the Key West National Wildlife Refuge on Marquesas Key and Boca Grande Key, the Crocodile Lake National Wildlife Refuge on Key Largo, and the Great White Heron National Wildlife Refuge on Sawyer Key and Content Key. The Florida Keys mole skink also occurs within Dry Tortugas National Park on Loggerhead Key in the Dry Tortugas. Specific management or conservation objectives for the Florida Keys mole skink are not identified in the management plans for these National Wildlife Refuges and National Park Service Lands; however, ongoing management activities including habitat restoration and nonnative species control provide benefits to the Florida Keys mole skink and its habitat.

Department of Defense Integrated Natural Resources Management Plans

The Sikes Act Improvement Act (1997) led to Department of Defense (DoD) guidance regarding development of Integrated Natural Resources Management Plans (INRMPs) for promoting environmental conservation on military installations. There are occurrence records of Florida Keys mole skink on lands owned and managed by the DoD as part of the Naval Air Station Key West, on Boca Chica and Key West. The Naval Air Station Key West has a current and completed INRMP, covering land owned by the DoD on Boca Chica Key and Key West (Department of the Navy 2020). Though the Florida Keys mole skink is not specifically mentioned, the INRMP provides conservation and habitat management measures applicable to the species.

Current Condition

For the purposes of this assessment, we divided the Florida Keys into four geographically representative units including the Upper Keys, Middle Keys, Lower Keys, and Distal Sand Keys. The average elevation for the Upper Keys is 4.8 ft (1.5 m); for the Middle Keys, is 4.29 ft (1.3 m); and for the Lower Keys, is 3.17 ft (1.0 m) (Monroe County 2022b, p. 1). The Distal Sand Keys are low-lying (average less than 4.0 ft (1.2 m)) sand islands and mangrove islands with the exception of Loggerhead Key, which has a peak elevation of 10.0 ft (3.0 m) (Monroe County 2022b, p. 1). Range-wide, the majority of islands within the Florida Keys are low-lying with an average elevation less than 4.0 ft (1.2 m) (Service 2020, p. 9).

The current condition of the Florida Keys mole skink is described in terms of population resiliency, redundancy, and representation across the species. The analysis of these conservation principles to understand the species' current viability is described in more detail in the Florida Keys mole skink SSA report (Service 2022, pp. 43–51).

Resiliency

Islands contain genetically distinct lineages of the Florida Keys mole skink species (Mercier 2018, pp. 18–21). Thus, in order to analyze the species' resiliency, we delineated populations of Florida Keys mole skink by islands, where all detections on the same island represent a population (or groups of interbreeding individuals). We considered Key Largo to represent two different populations, based on the length of the island and distance between detection locations (greater than 4 mi (6.4 km)). Therefore, for our assessment of population resiliency, we considered everything north of U.S. Route 1 as the North Key Largo population and everything south of U.S. Route 1 as the Key Largo population.

Due to the semi-fossorial and cryptic nature of the Florida Keys mole skink, abundance data are lacking, and no population trend data exist for this species. There are also no data available regarding the population structure or demographics of the Florida Keys mole skink. Therefore, we assessed resiliency based on the number of individuals detected on an island (multiple individuals indicates a larger population), and the number of locations within an area (greater than 328 ft (100 m) apart) where individual Florida Keys mole skinks were observed (table 1). We chose the 328 ft (100 m) distance based on the estimated dispersal distance of individuals within other skink populations (Gianopulos 2001, p. 81; Mushinsky et al. 2001, p. 54; McCoy et al. 2020, p. 8; table 1).

TABLE 1—METRICS USED FOR POPULATION RESILIENCY CLASSIFICATIONS FOR THE FLORIDA KEYS MOLE SKINK

[For current populations, the number of individuals detected and the number of locations (>100 meters apart) factor into whether the population is considered to have a low, moderate, high, or very high current resiliency.]

Last detection	Number of individuals detected	Locations (>100 meters apart)	Resiliency
Before 1970:			
Historical			Unknown.*
1970–1999:			
Recent			Unknown.*
2000–2021:			
Current	1	1	Low.
	>1 and ≤10	1 or >1	Moderate.
	>10	1	Moderate.
	>10	>1	High.
	>50	>1	Very high.

* For historical and recent populations, we do not have survey data to indicate current status of these populations and therefore consider the status to be unknown.

Florida Keys mole skinks have been documented on 23 islands throughout the Florida Keys. Four populations are considered historical (no detections since 1970), five are considered relatively recent (skinks were detected between 1970 and 1999), and 15 are considered current (skinks were detected between 2000 and 2021). Of the 15 current populations, 2 are in the Upper Keys, 3 are in the Middle Keys, 8 are in the Lower Keys, and 2 are in the Distal Sand Keys (table 2). Based on the parameters outlined above (table 1), one current population is considered to have very high resiliency and two current populations are considered to have high resiliency. Six current populations are determined to be moderately resilient, and six current populations are considered to have low resiliency (Service 2022, pp. 46–47; table 2).

TABLE 2—RESILIENCY CLASSIFICATIONS FOR THE 15 CURRENT POPULATIONS OF FLORIDA KEYS MOLE SKINK

Region	Island	Resiliency
Upper Keys	Lower Matecumbe Key	Low.
	Key Largo	Moderate.
Middle Keys	Boot Key	Moderate
	Vaca Key	Low.
	Long Key	Low.
Lower Keys	Key West	Low.
	Boca Chica Key	Moderate.
	Sawyer Key	High.
	Content Keys	Moderate.
	Big Munson Island	Moderate.
	Cook's Island	Low.
	Big Pine Key	Very High.
	Bahia Honda Key	High.
Distal Sand Keys	Marquesas Key	Low.
	Boca Grande Key	Moderate.

Redundancy

Redundancy reduces the species' extinction risk if a portion of the species' range is negatively affected by a natural or anthropogenic catastrophic disturbance. In the Florida Keys, tropical storms and hurricanes are regular and common events. However, catastrophic events may include particularly strong or intense hurricanes or storms and the resulting winds, waves, and storm surges associated with these events. Increased frequency of such storms associated with climate change could further reduce the ability of Florida Keys mole skink populations to recover and could cause catastrophic impact to the species.

For the Florida Keys mole skink to withstand catastrophic events such as hurricanes, it needs to have multiple, sufficiently resilient populations across its range. Of the 15 currently known populations of Florida Keys mole skink, only one population is considered to have very high resiliency, two populations are considered to have high resiliency, and all three of these populations are found on islands in the Lower Keys (table 2). Although all three high-resiliency populations are found within the Lower Keys, some redundancy is provided by the fact that at least one moderate-resiliency population is located in each of the other three regions (table 2).

Representation

Representation describes the ability of a species to adapt to changing environmental conditions and is measured by the breadth of genetic or environmental diversity within and among populations. Overall, the genetic and environmental diversity of the Florida Keys mole skink is low, with no sign of morphological or behavioral differences between skinks on different islands (Branch et al. 2003, pp. 202–205; Technical Team Working Group 2016, pers. comm.; Mercier 2017, pers. comm.).

The species occurs on several islands across a narrow geographic and ecological range; there is little variation in habitat types across distance or elevation as occurs in wider ranging and more abundant species. The entire species is represented within the same tropical system. The amount of coastal sandy substrate and hammock habitat is limited and distributed in patches throughout the Florida Keys. The Florida Keys mole skink does not occur across different ecotones and does not have access to different ecotones or systems in which to adapt. However, within the narrow ecological range in which Florida Keys mole skink occurs, there are some differences in the substrates and habitat types available, specifically between the Upper Keys and Lower Keys regions. Given these factors, we consider overall representation of the Florida Keys mole skink to be relatively low.

Future Condition

Climate change impacts related to sea level rise, increased high tide flooding, and increased storm intensity are the primary threats to the Florida Keys mole skink. Development can also have significant impacts on the Florida Keys mole skink and its habitat, but because most land available for development has already been developed, we did not include development in our future scenarios (see above section ''Development'' and Service 2022, p. 52).

As sea level rises, Florida Keys mole skink habitats will become inundated and lost. While conditions may allow some beaches to migrate upslope, sea level rise will most likely lead to an overall loss of beach habitats due to inundation. In addition to sea level rise, the Florida Keys mole skink may be affected by increased high tide flooding and increased intensity of storm events (stronger hurricanes and stronger storm surges), which are projected to increase in frequency and intensity and thus exacerbate habitat loss and degradation.

For our evaluation of future condition, we used modeled projections of sea level rise (Sweet et al. 2017, pp. 11–13) and high tide flooding (Sweet et al. 2018, entire). We modeled threats for years 2040 and 2060 (approximately 20 years and 40 years) into the future. This timeframe was chosen to capture sea level rise estimates before the sea level rise scenarios begin to diverge significantly due to uncertainty of the future of human carbon emissions (Sweet et al. 2017, pp. 11–13). Additionally, we focused on changes that are expected within the next 40 years, because Florida Keys mole skink habitat is forecasted to be largely inundated by sea level rise in the Florida Keys beyond 2060 (Service 2022, appendix D; table 3). A detailed estimate of Florida Keys mole skink future conditions for later timeframes (up to 2100) is provided in the SSA report (Service 2022, appendix D).

For our sea level rise predictions, we used a suite of scenarios that describe the bounds of a range of plausible future conditions (intermediate, intermediate-high, high, and extreme), which are aligned with emissions-based, conditional probabilistic and global model projections of mean sea level rise (Sweet et al. 2017, pp. 11–13). We used the nearest local scenarios for specific sea level rise height values within the Florida Keys. Future sea level rise projections account for normal high tides (mean high tide for a given local station) (Sweet et al. 2017, entire; NOAA 2017, entire). In addition to normal high tides, minor, moderate, and

major flood events are also projected to increase in the future (Sweet et al. 2018, entire). Minor high tide flooding is defined as more disruptive than damaging and currently can be expected about 2 days per year (Sweet et al. 2018, p. 11). Minor high tide flooding is likely to increase to 7 to 15 days per year by 2030, and to 25 to 75 days per year by 2050, with much higher rates in many coastal locations, including much of coastal Florida and the Florida Keys (Sweet et al. 2017, p. 37; Sweet et al. 2020, pp. v–vi). To account for minor high tide flooding events in the future, we included minor high tide flooding threshold values from local gauges in the Florida Keys. Detailed descriptions of sea level rise and high tide flooding data are available in the SSA report (Service 2022, pp. 25–27).

Due to repeated habitat disturbance, we assume areas where high tide flooding occurs to have negative impacts on Florida Keys mole skink habitat and consider these areas to be degraded to the point of no longer representing suitable habitat. Repeated high tide flooding events are likely to degrade habitat (by moving the wrack line, rendering habitat unsuitable until waters recede) even before sea level is high enough to inundate habitat. Repeated habitat disturbance by high tide flooding also reduces the chance for an area to become repopulated by skinks following disturbance. While moderate and major high tide floods may degrade and remove habitat, it is less certain whether these floods will be frequent enough to render habitat unusable.

Habitat Impacts

To assess the amount of Florida Keys mole skink habitat that would be lost or degraded due to sea level rise and high tide flooding for years 2040 and 2060, we evaluated the total potential habitat for each island with a current, recent, or historical population. Since Florida Keys mole skink have been documented in habitats away from the beach, we included all island habitat as potential habitat. Thus, total potential habitat was calculated as the entire island area subtracting areas not considered to be suitable habitat for Florida Keys mole skink, including freshwater, water, and impervious cover areas (Monroe County 2016b, entire). For each foot of sea level rise, plus the effects of high tide flooding, we calculated the percent area that would be inundated or degraded for each island with a current, recent, or historical population. We provide detailed descriptions of our methods in the SSA report, and we also provide calculations for some islands with data available for preferred habitats (including beach berm, coastal hammock, and preferred soils) (Monroe County 2016b, entire; Service 2022, pp. 59–60; appendix D).

TABLE 3—CURRENT AMOUNT AND PERCENTAGE OF POTENTIAL HABITAT LOSS FOR FLORIDA KEYS MOLE SKINKS BY 2040 AND 2060 FOR EACH 1-FOOT CHANGE IN SEA LEVEL RISE

[These metrics are provided for individual populations on islands with a current (Years 2000–2021), recent (1970–1999), or historical (before 1970) population. Total percent lost includes habitat lost due to sea level rise and high tide flooding.]

Region	Island	Population status	Current amount of habitat (acres)	2040			2060			
				Percent of potential habitat lost per change in sea level			Percent of potential habitat lost per change in sea level			
				2 ft	3 ft	4 ft	3 ft	4 ft	5 ft	6 ft
Upper Keys	Lower Matecumbe Key	Current	866.3	43	69	90	69	90	98	99
	Indian Key	Historical	11.3	24	34	45	34	45	56	68
	Upper Matecumbe Key	Historical	903.6	47	55	65	55	65	72	78
	Plantation Key	Recent	1,751.0	37	48	63	48	63	73	80
	Key Largo	Current	14,591.0	71	77	80	77	80	84	87
	North Key Largo	Recent	6,548.0	59	66	73	66	73	80	85
Middle Keys	Boot Key	Current	795.4	95	98	99	98	99	100	100
	Vaca Key	Current	797.9	29	54	78	54	78	91	97
	Grassy Key	Historical	619.2	60	77	90	77	90	98	99
	Long Key	Current	1,114.1	82	90	97	90	97	98	99
Lower Keys	Key West	Current	3,200.0	25	51	70	51	70	82	90
	Boca Chica	Current	3,790.5	76	89	95	89	95	98	99
	Sawyer Key	Current	111.1	97	99	100	99	100	100	100
	Content Key	Current	166.3	98	99	100	99	100	100	100
	Big Munson	Current	128.0	93	96	99	96	99	100	100
	Cook's Island	Current	61.2	89	92	95	92	95	98	100
	Middle Torch	Recent	758.8	83	97	100	97	100	100	100
	Big Pine	Current	5,482.7	60	84	94	84	94	99	100
	Scout Key	Recent	91.6	58	74	81	74	81	86	88
	Bahia Honda Key	Current	351.3	78	86	90	86	90	93	96
Distal Sand Keys	Loggerhead Key	Historical	53.8	18	23	28	23	28	35	47
	Marquesas Key	Current	1,696.8	84	94	100	94	100	100	100
	Boca Grande Key	Current	212.5	80	90	100	90	100	100	100
Total			44,102.4	61	72	80	72	80	85	88

2040 Projected Habitat Loss—Under the 2040 scenario, sea level rise and the effects of high tide flooding (hereafter referred to as just sea level rise), is projected to be between 2.0 ft and 4.0 ft (0.7 m and 1.2 m) above the current mean high water line (table 3). Greatest impacts from sea level rise are projected within the Lower Keys, where the majority of the current populations are found; even under the lowest scenario of 2.0-ft (0.7-m) sea level rise, 9 of the 10 islands are projected to lose over half their potential habitat, which would include the loss of all current populations on those islands.

2060 Projected Habitat Loss—Under the 2060 scenario, sea level rise is projected to be between 3.0 ft (0.9 m) and 6.0 ft (1.8 m) above the current mean high water line, throughout the Florida Keys (table 3). The Upper Keys (where most of the historical and recent populations are located) are projected to have the least impacts from sea level rise, whereas the Lower Keys, and the current populations in that region, are projected to experience the greatest impacts from sea level rise (table 3).

Resiliency

We assessed future resiliency, by evaluating the magnitude of sea level rise impacts on current populations of Florida Keys mole skink and their habitat. We also evaluated future resiliency for islands with recent and historical populations to assess how sea level rise impacts may affect areas where skinks have been located in the past. For many of the recent and historical populations, follow up survey data are lacking and it is possible that skinks still exist on these islands.

We quantified the magnitude of change in population resiliency based on the percent of potential habitat that is projected to be lost or degraded by sea level rise. We used the percent of total potential habitat (usable land) to be impacted by sea level rise (lost and degraded) and based our resiliency assessment on those values. We represented the magnitude of a predicted change in resiliency where greater than 10 percent, but less than or equal to 50 percent, represents a slight decrease in resiliency; greater than 50 percent, but less than or equal to 75 percent, represents a moderate decrease; where greater than 75 percent, but less than or equal to 90 percent, represents a large decrease; and greater than 90 percent decrease represents the possibility of extirpation—as little or no unaltered habitat remains. In the SSA report, we provide these values for all populations up to 10.0 ft (3.0 m) sea level rise (Service 2022, appendix D).

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TABLE 4—PROJECTED MAGNITUDE OF CHANGE IN RESILIENCY FOR POPULATIONS OF FLORIDA KEYS MOLE SKINKS FOR VARIOUS SEA LEVEL RISE SCENARIOS IN YEARS 2040 AND 2060

CURRENT POPULATION STATUS = YEARS 2000–2021; RECENT = 1970–1999; AND HISTORICAL = BEFORE 1970.

SYMBOLS: ↓ = A SLIGHT DECREASE (>10 PERCENT BUT ≤50 PERCENT); ↓↓ = A MODERATE DECREASE (>50 PERCENT BUT ≤75 PERCENT); AND ↓↓↓ = A LARGE DECREASE (>75 PERCENT BUT ≤90 PERCENT).

IF >90 PERCENT OF THE POTENTIAL HABITAT IS IMPACTED, WE EXPECT THE POPULATION TO BE EXTIRPATED (X), REGARDLESS OF POPULATION RESILIENCY.

				2040			2060			
				Amount of Sea Level Rise						
Region	Island	Population Status	Current Resiliency	2 ft	3 ft	4 ft	3 ft	4 ft	5 ft	6 ft
Upper Keys	Lower Matecumbe Key	current	low	↓	↓↓	X	↓↓	X	X	X
	Indian Key	historical	unknown	↓	↓	↓	↓	↓	↓↓	↓↓
	Upper Matecumbe Key	historical	unknown	↓	↓↓	↓↓	↓↓	↓↓	↓↓	↓↓↓
	Plantation Key	recent	unknown	↓	↓	↓	↓	↓	↓↓	↓↓↓
	Key Largo	current	moderate	↓↓	↓↓↓	↓↓↓	↓↓↓	↓↓↓	↓↓↓	↓↓↓
	North Key Largo	recent	unknown	↓↓	↓↓	↓↓	↓↓	↓↓	↓↓↓	↓↓↓
Middle Keys	Boot Key	current	moderate	X	X	X	X	X	X	X
	Vaca Key	current	low	↓	↓↓	↓↓↓	↓↓	↓↓↓	X	X
	Grassy Key	historical	unknown	↓↓	↓↓↓	X	↓↓↓	X	X	X
	Long Key	current	low	↓↓↓	X	X	X	X	X	X
Lower Keys	Key West	current	low	↓	↓↓	↓↓	↓↓	↓↓	↓↓↓	↓↓↓
	Boca Chica	current	moderate	↓↓↓	↓↓↓	X	↓↓↓	X	X	X
	Sawyer Key	current	high	X	X	X	X	X	X	X
	Content Key	current	moderate	X	X	X	X	X	X	X
	Big Munson Island	current	moderate	X	X	X	X	X	X	X
	Cook's Island	current	low	↓↓↓	X	X	X	X	X	X
	Middle Torch Key	recent	unknown	↓↓↓	X	X	X	X	X	X
	Big Pine Key	current	very high	↓↓	↓↓↓	X	↓↓↓	X	X	X
	Scout Key	recent	unknown	↓↓	↓↓	↓↓↓	↓↓	↓↓↓	↓↓↓	↓↓↓
	Bahia Honda Key	current	high	↓↓↓	↓↓↓	X	↓↓↓	X	X	X
Distal Sand Keys	Loggerhead Key	historical	unknown	↓	↓	↓	↓	↓	↓	↓
	Marquesas Key	current	low	↓↓↓	X	X	X	X	X	X
	Boca Grande Key	current	moderate	↓↓↓	X	X	X	X	X	X

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By 2040, three of the six populations with moderate resiliency and one of two populations with high resiliency are projected to be extirpated, even under the lowest sea level rise scenario of 2.0 ft (0.7 m). Under the highest sea level

rise scenario of 4.0 ft (1.2 m) in 2040, 12 of the 15 current populations of Florida Keys mole skink are projected to be extirpated, including Big Pine Key, the only current population with very high resiliency. However, because much of Big Pine Key population is located in one area, resiliency may be affected more than projected under lower sea level rise scenarios. For example, with just 2.0–ft (0.7–m) sea level rise, much of the exposed land on Big Pine Key is projected to be inundated, leaving only a narrow strip of beach where current Florida Keys mole skink detections occur (Service 2020, p. 17).

Given the projected effects of sea level rise, we expect resiliency for all populations to decrease in the future, with the greatest impacts projected in the Lower Keys and Middle Keys, where most of the moderate or highly resilient populations currently occur. The most significant impacts of sea level rise are expected in 2040 with a projected 4.0 ft (1.2 m) sea level rise. Under the 4.0 ft (1.2 m) sea level rise scenario, one of the two current populations in the Upper Keys is projected to be extirpated, two of the three current populations in the Middle Keys are projected to be extirpated, 9 of the 10 current populations in the Lower Keys are projected to be extirpated, and both current populations in the Distal Sand Keys are projected to be extirpated (table 3). Thus, by 2040, no current populations in the Distal Sand Keys are projected to remain, and only one population in each of the other regions (Upper Keys, Middle Keys, Lower Keys) is projected to remain with a 4.0 ft (1.2 m) sea level rise.

Many islands with recent and historical populations, especially in the Upper Keys, are projected to be less impacted by sea level rise. Under the two highest sea level rise scenarios of 5.0 ft (1.5 m) and 6.0 ft (1.8 m) in 2060, six of the eight recent and historical populations are projected to have remaining Florida Keys mole skink habitat (table 3). However, many of the recent and historical populations have not been surveyed since original detections were reported; thus, even if suitable habitat remains, it is unknown if Florida Keys mole skinks still exist on these islands.

Redundancy

Redundancy is typically measured by the number and distribution of sufficiently resilient populations across a species' range. Of the 15 current populations of Florida Keys mole skink, only one population is considered to have very high resiliency, and two populations are considered to have high resiliency. All three of these populations are located in the Lower Keys, an area that is expected to have some of the greatest impacts from sea level rise. Additionally, at the lowest sea level rise estimate of 2.0 ft (0.7 m), all islands with moderate and high resiliency populations are expected to lose substantial habitat, rangewide (table 3). Because the Florida Keys mole skink is endemic to the Florida Keys, losing even a few populations to the effects of sea level rise would result in a significant reduction in redundancy. With the projected loss of a substantial amount of habitat by 2040, and a loss of nearly all potential habitat in the Middle Keys, Lower Keys, and Distal Sand Keys by 2060, redundancy for the species is expected to be severely reduced.

With the continued loss or degradation to Florida Keys mole skink habitat, we expect loss of island populations, thereby further reducing the species' ability to withstand catastrophic events such as hurricanes.

Representation

The four representative regions (Upper Keys, Middle Keys, Lower Keys, and Distal Sand Keys) are at risk of losing some or all of their Florida Keys mole skink populations. The ability of the Florida Keys mole skink to adapt to changing environmental conditions is limited. The reduction in Florida Keys mole skink habitat will lead to fewer individuals and populations throughout the species' range. Because there is little interbreeding among populations, genetic differentiation will likely be lost each time a population is lost. Therefore, we expect representation of the Florida Keys mole skink to decrease in the future.

Determination of Florida Keys Mole Skink Status

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines an ''endangered species'' as a species in danger of extinction throughout all or a significant portion of its range, and a ''threatened species'' as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of an endangered species or a threatened species because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or human-made factors affecting its continued existence.

We presented summary evaluations of the primary threats analyzed in the SSA including development (Factor A) and climate change, specifically sea level rise, increased high tide flooding, and increased intensity of storm events (Factor E). We also evaluated existing regulatory mechanisms (Factor D) and ongoing conservation measures. In the SSA, we also considered additional threats: overutilization due to recreational, educational, and scientific use (Factor B); disease (Factor C); and oil spills and nonnative species (Factor E). We concluded that, as indicated by the best available scientific and commercial information, that these minor threats currently have little to no impact on Florida Keys mole skink and their habitat, and thus their overall effect now and into the future is expected to be minimal. However, we consider each of these minor threats in the determination for the species, because although minor threats may have low impacts on their own, combined with impacts of other threats, they could further reduce the already low number of Florida Keys mole skinks.

Status Throughout All of Its Range

After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we found that impacts from climate change present the most substantial threat to the Florida Keys mole skink's viability. In the foreseeable future, we anticipate that threats associated with climate change, specifically sea level rise, high tide flooding, and storm events will continue to increase in magnitude and have the greatest influence on Florida Keys mole skink viability. Sea level rise will continue to result in the inundation and loss of habitat. More frequent and intense high tide flooding and storm events will accelerate habitat loss, may kill individual skinks, and will reduce overall population resiliency. Acting together, these threats will cause irreversible habitat degradation and loss. We also considered the effects of development, habitat disturbance, and minor threats including overutilization due to recreational, educational, and scientific use, disease, oil spills, and nonnative species for their cumulative effects.

The Florida Keys mole skink has a current resiliency characterized by one population with very high resiliency, two populations with high resiliency, six populations with moderate resiliency, and six populations with low resiliency. Although all high-resiliency populations are found in the Lower Keys region, at least one moderate-resiliency population is found in each of the other three regions. Accordingly, given its current resiliency and redundancy across its range, we conclude that the Florida Keys mole skink is not currently in danger of extinction throughout its range.

We next considered whether the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. In considering the foreseeable future for the Florida Keys mole skink, we analyzed expected changes in sea level rise and high tide flooding from 2040 to 2100 (Service 2022, pp. 52–63). That said, we focused on changes that are expected within the next 40 years (year 2060), because almost all of Florida Keys mole skink habitat in the Florida Keys is forecasted to be lost by 2060. We determined that this timeframe represents a period for which we can reliably predict both the threats to the species and the species' response to those threats.

By 2040, populations of Florida Keys mole skink may begin experiencing significant losses under the lowest scenario of 2.0–ft (0.7–m) sea level rise. One population with high resiliency and three of the six Florida Keys mole skink populations with moderate resiliency are projected to be extirpated by 2040, even under the lowest sea level rise scenario (2.0 ft (0.7 m)). Big Pine Key, the only population that currently has very high resiliency, is projected to be extirpated by 2040, under a projected 4.0–ft (1.2–m) sea level rise. In total, 12 of the 15 current populations of Florida Keys mole skink are projected to be extirpated by 2040, with significant habitat loss projected for islands with remaining populations.

After assessing the best available information, we conclude that the Florida Keys mole skink is not currently in danger of extinction but is likely to become in danger of extinction within the foreseeable future throughout all of its range. Overall, the species currently exhibits some population resiliency and redundancy, and representation is considered naturally low. Thus, after assessing the best available information, we determined that the Florida Keys mole skink is not currently in danger of extinction throughout all of its range. However, after assessing all the same threats for future condition, we determined that habitat loss and degradation resulting from sea level rise, high tide flooding, and increased intensity of storm events will affect the Florida Keys mole skink within the foreseeable future, such that the species is likely to become an endangered species within the foreseeable future throughout all of its range.

Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity* v. *Everson,* 435 F. Supp. 3d 69 (D.D.C. 2020) (*Everson*), vacated the aspect of the Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (Final Policy) (79 FR 37578; July 1, 2014) that provided if the Services determine that a species is threatened throughout all of its range, the Services will not analyze whether the species is endangered in a significant portion of its range. Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its range—that is, whether there is any portion of the species' range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the ''significance'' question or the ''status'' question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

Following the court's holding in *Everson,* we now consider whether there are any significant portions of the species' range where the species is in danger of extinction now (*i.e.,* endangered). In undertaking this analysis for the Florida Keys mole skink, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify any portions of the range where the species is endangered.

We evaluated the range of the Florida Keys mole skink to determine if the species is in danger of extinction now in any portion of its range.The range of a species can theoretically be divided into portions in an infinite number of ways. We focused our analysis on portions of the species' range that may meet the definition of an endangered species. For the Florida Keys mole skink, we considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is in danger of extinction now in that portion.

The statutory difference between an endangered species and a threatened species is the timeframe in which the species becomes in danger of extinction; an endangered species is in danger of extinction now while a threatened species is not in danger of extinction now but is likely to become so in the foreseeable future. Thus, we considered the time horizon for the threats that are driving the Florida Keys mole skink to warrant listing as a threatened species throughout all of its range. We examined the following threats: climate change (including sea level rise, increased high tide flooding, and increased storm events), development, habitat disturbance, overutilization due to recreational, educational, and scientific use, disease, oil spills, and nonnative species, as well as cumulative effects of those threats. As discussed in our rangewide analysis, sea level rise, increased high tide flooding, and increased intensity of storm events are the primary threats to the Florida Keys mole skink in the future. We also considered development, habitat disturbance, and overutilization due to recreational, educational, and scientific use, disease, oil spills, and nonnative species for their cumulative effects. We then considered whether these threats or their effects are currently occurring (or may imminently occur) in any portion of the species' range with sufficient magnitude such that the species is in danger of extinction now in that portion of its range.

Multiple populations currently exist in each region of the Florida Keys mole skink's current range, with at least one moderately resilient population in each region. The Florida Keys mole skink has a current resiliency characterized by one population with very high resiliency, two populations with high resiliency, six populations with moderate resiliency, and six populations with low resiliency. Although all high resiliency populations are found in the Lower Keys region, at least one moderate resiliency population is found in each of the other three regions. Given the low elevation of islands in the Florida Keys, all populations across the range are anticipated to experience effects from

climate change in the foreseeable future. Additionally, development, habitat disturbance and overutilization due to recreational, educational, and scientific use, disease, oil spills, and nonnative species are not concentrated in any portion of the species' range. We found no portion of the Florida Keys mole skink's range where threats are impacting individuals differently from how they are affecting the species elsewhere in its range. The best scientific and commercial data available indicate that the time horizon on which the species' responses to those threats are likely to occur is the foreseeable future. In addition, the best scientific and commercial data available do not indicate that any of the threats to the species and the species' responses to those threats are more immediate in any portions of the species' range. Therefore, we determine that the Florida Keys mole skink is not in danger of extinction now in any portion of its range, but that the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. This does not conflict with the courts' holdings in *Desert Survivors* v. *U.S. Department of the Interior,* 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018) and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not apply the aspects of the Final Policy, including the definition of ''significant'' that those court decisions held to be invalid.

Determination of Status

Our review of the best available scientific and commercial information indicates that the Florida Keys mole skink meets the definition of a threatened species. Therefore, we propose to list the Florida Keys mole skink as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition as a listed species, planning and implementation of recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness, and conservation by Federal, State, Tribal, and local agencies, private organizations, and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies, including the Service, and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Section 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

The recovery planning process begins with development of a recovery outline made available to the public soon after a final listing determination. The recovery outline guides the immediate implementation of urgent recovery actions while a recovery plan is being developed. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) may be established to develop and implement recovery plans. The recovery planning process involves the identification of actions that are necessary to halt and reverse the species' decline by addressing the threats to its survival and recovery. The recovery plan identifies recovery criteria for review of when a species may be ready for reclassification from endangered to threatened (''downlisting'') or removal from protected status (''delisting''), and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery outline, draft recovery plan, final recovery plan, and any revisions will be available on our website as they are completed (*https://www.fws.gov/program/endangered-species*), or from our Florida Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (*e.g.,* restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

If this species is listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State of Florida would be eligible for Federal funds to implement management actions that promote the protection or recovery of the Florida Keys mole skink. Information on our grant programs that are available to aid species recovery can be found at: *https://www.fws.gov/service/financial-assistance.*

Although the Florida Keys mole skink is only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for this species. Additionally, we invite you to submit any new information on this species whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as an endangered or threatened species and with respect to its critical habitat. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

For the Florida Keys mole skink, Federal agency actions within the species' habitat that may require conference or consultation or both as described in the preceding paragraph include management and any other

landscape-altering activities such as mechanical treatment for vegetation management on Federal lands administered by the Service and the National Park Service. Other Federal agency actions under this category may include issuance of section 404 Clean Water Act (33 U.S.C. 1251 *et seq.*) permits (including but not limited to, dredging and spoil area management and beach renourishment projects) by the U.S. Army Corps of Engineers or the State of Florida and construction and maintenance of roads or highways by the Federal Highway Administration.

It is our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a proposed listing on proposed and ongoing activities within the range of the species proposed for listing. The Act allows the Secretary to promulgate protective regulations for threatened species pursuant to section 4(d) of the Act. The discussion below regarding protective regulations under section 4(d) of the Act complies with our policy.

II. Proposed Rule Issued Under Section 4(d) of the Act

Background

Section 4(d) of the Act contains two sentences. The first sentence states that the Secretary shall issue such regulations as she deems necessary and advisable to provide for the conservation of species listed as threatened species. The U.S. Supreme Court has noted that statutory language similar to the language in section 4(d) of the Act authorizing the Secretary to take action that she ''deems necessary and advisable'' affords a large degree of deference to the agency (see *Webster* v. *Doe,* 486 U.S. 592, 600 (1988)). Conservation is defined in the Act to mean the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Additionally, the second sentence of section 4(d) of the Act states that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants. Thus, the combination of the two sentences of section 4(d) provides the Secretary with wide latitude of discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to the Service when adopting one or more of the prohibitions under section 9.

The courts have recognized the extent of the Secretary's discretion under this standard to develop rules that are appropriate for the conservation of a species. For example, courts have upheld, as a valid exercise of agency authority, rules developed under section 4(d) that included limited prohibitions against takings (see *Alsea Valley Alliance* v. *Lautenbacher,* 2007 WL 2344927 (D. Or. 2007); *Washington Environmental Council* v. *National Marine Fisheries Service,* 2002 WL 511479 (W.D. Wash. 2002)). Courts have also upheld 4(d) rules that do not address all of the threats a species faces (see *State of Louisiana* v. *Verity,* 853 F.2d 322 (5th Cir. 1988)). As noted in the legislative history when the Act was initially enacted, ''once an animal is on the threatened list, the Secretary has an almost infinite number of options available to [her] with regard to the permitted activities for those species. [She] may, for example, permit taking, but not importation of such species, or [she] may choose to forbid both taking and importation but allow the transportation of such species'' (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

In the early days of the ESA, the Service published at 50 CFR [17.31/17.71] a general protective regulation that would apply to each threatened species, unless we were to promulgate a separate species-specific protective regulation for that species. In the wake of the court's *CBD* v. *Haaland* decision vacating a 2019 regulation that had made 50 CFR 17.31 inapplicable to any species listed as a threatened species after the effective date of the 2019 regulation, the general protective regulation applies to all threatened species, unless we adopt a species-specific protective regulation. As explained below, we are adopting a species-specific rule that sets out all of the protections and prohibitions applicable to the Florida Keys mole skink.

The provisions of this proposed 4(d) rule would promote conservation of the Florida Keys mole skink by encouraging management of the habitat for Florida Keys mole skink in ways that facilitate conservation for Florida Keys mole skink. The provisions of this proposed rule are one of many tools that we would use to promote the conservation of the Florida Keys mole skink. This proposed 4(d) rule would apply only if and when we make final the listing of the Florida Keys mole skink as a threatened species.

As mentioned previously in Available Conservation Measures, 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 that 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.

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 Federal 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, authorized, or carried out by a Federal agency—do not require section 7 consultation.

These requirements are the same for a threatened species with a species-specific 4(d) rule. For example, a Federal agency's determination that an action is ''not likely to adversely affect'' a threatened species will require the Service's written concurrence. Similarly, a Federal agency's determination that an action is ''likely to adversely affect'' a threatened species will require formal consultation and the formulation of a biological opinion.

Provisions of the Proposed 4(d) Rule

Exercising the Secretary's authority under section 4(d) of the Act, we have developed a proposed rule that is designed to address the Florida Keys mole skink's conservation needs. As discussed previously in Summary of Biological Status and Threats, we have

concluded that the Florida Keys mole skink is likely to become in danger of extinction within the foreseeable future due to the degradation and loss of habitat primarily due to sea level rise, increased frequency of high tide flooding, and increased frequency of storm events. Section 4(d) requires the Secretary to issue such regulations as she deems necessary and advisable to provide for the conservation of each threatened species and authorizes the Secretary to include among those protective regulations any of the prohibitions that section 9(a)(2) of the Act prescribes for endangered species. We find that, if finalized, the protections, prohibitions, and exceptions in this proposed rule as a whole satisfy the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the Florida Keys mole skink.

The protective regulations we are proposing for Florida Keys mole skink incorporate prohibitions from section 9(a)(1) to address the threats to the species. Section 9(a)(1) prohibits the following activities for endangered wildlife: importing or exporting; take; possession and other acts with unlawfully taken specimens; delivering, receiving, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce. This protective regulation includes all these prohibitions for the Florida Keys mole skink because the Florida Keys mole skink is at risk of extinction in the foreseeable future and we anticipate these prohibitions will help to slow the rate of habitat loss and fragmentation, slow the species' rate of decline, and decrease synergistic, negative effects from other ongoing or future threats.

In particular, this proposed 4(d) rule would provide for the conservation of the Florida Keys mole skink by prohibiting the following activities, unless they fall within specific exceptions or are otherwise authorized or permitted: importing or exporting; take (as set forth at 50 CFR 17.21(c)(1) with exceptions as discussed below); possession and other acts with unlawfully taken specimens; delivering, receiving, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce.

Under the Act, ''take'' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Some of these provisions have been further defined in regulations at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Regulating take would help preserve the species' remaining populations, slow their rate of decline, and decrease synergistic, negative effects from other ongoing or future threats. Therefore, we propose to prohibit take of the Florida Keys mole skink, except for take resulting from those actions and activities specifically excepted by the 4(d) rule.

Exceptions to the prohibition on take would include all the general exceptions to the prohibition against take of endangered wildlife, as set forth in 50 CFR 17.21 and certain other specific activities that we propose for exception, as described below.

The proposed 4(d) rule would also provide for the conservation of the species by allowing exceptions that incentivize conservation actions or that, while they may have some minimal level of take of the Florida Keys mole skink, are not expected to rise to the level that would have a negative impact (*i.e.,* would have only de minimis impacts) on the species' conservation. The proposed exceptions to these prohibitions include mechanical treatment activities, prescribed fire activities, and nonnative plant or animal species eradication activities (described below) that are expected to provide conservation benefits and have negligible impacts to the Florida Keys mole skink and its habitat. Specifically, take associated with the following activities is excepted from the prohibitions:

(1) Mechanical treatment activities conducted within Florida Keys mole skink habitat that are carried out in accordance with a habitat management plan developed by a Federal, State, or county entity in coordination with the Service as long as the treatments are used to maintain, restore, or enhance a natural diversity and abundance of habitats for native plants and wildlife.

(2) Prescribed fire activities conducted within Florida Keys mole skink habitat that are carried out in accordance with a fire management plan developed by a Federal, State, or county entity in coordination with the Service as long as the treatments are used to maintain, restore, or enhance a natural diversity and abundance of habitats for native plants and wildlife. Prescribed fire activities include maintenance and creation of fire breaks, fire line installations, mechanical treatments to reduce fuel loads, and any other pre-fire preparations needed.

(3) Nonnative plant or animal species eradication activities that are carried out in accordance with a habitat management plan developed by a Federal, State, or county entity in coordination with the Service as long as the treatments are used to maintain, restore, or enhance a natural diversity and abundance of habitats for native plants and wildlife.

Despite these prohibitions regarding threatened species, we may under certain circumstances issue permits to carry out one or more otherwise-prohibited activities, including those described above. The regulations that govern permits for threatened wildlife state that the Director may issue a permit authorizing any activity otherwise prohibited with regard to threatened species. These include permits issued for the following purposes: for scientific purposes, to enhance propagation or survival, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes consistent with the purposes of the Act (50 CFR 17.32). The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

We recognize the special and unique relationship with our State natural resource agency partners in contributing to conservation of listed species. State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened, and candidate species of wildlife and plants. State agencies, because of their authorities and their close working relationships with local governments and landowners, are in a unique position to assist us in implementing all aspects of the Act. In this regard, section 6 of the Act provides that we must cooperate to the maximum extent practicable with the States in carrying out programs authorized by the Act. Therefore, any qualified employee or agent of a State conservation agency that is a party to a cooperative agreement with us in accordance with section 6(c) of the Act, who is designated by his or her agency for such purposes, would be able to conduct activities designed to conserve Florida Keys mole skink that may result in otherwise prohibited take without additional authorization.

Nothing in this proposed 4(d) rule would change in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or our ability to enter into partnerships for the management and protection of the Florida Keys mole skink. However, interagency cooperation may be further

streamlined through planned programmatic consultations for the species between us and other Federal agencies, where appropriate. We ask the public, particularly State agencies and other interested stakeholders that may be affected by the proposed 4(d) rule, to provide comments and suggestions regarding additional guidance and methods that we could provide or use, respectively, to streamline the implementation of this proposed 4(d) rule (see Information Requested, above).

III. Critical Habitat

Background

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

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

(a) Essential to the conservation of the species;

(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.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.,* range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

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 also 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 Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement ''reasonable and prudent alternatives'' to avoid destruction or adverse modification of critical habitat.

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

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. We note that the court in *CBD* v. *Haaland* vacated the provisions from the 2019 regulations regarding unoccupied critical habitat. Therefore, the regulations that now govern designations of critical habitat are the implementing regulations that were in effect before the 2019 regulations.

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 from the SSA report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in the 4(d) rule. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to

contribute to recovery of the species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of those planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and 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 a designation of critical habitat is not prudent when any of the following situations exist:

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

(ii) Such designation of critical habitat would not be beneficial to the species. In determining whether a designation would not be beneficial, the factors the Services may consider include but are not limited to: Whether the present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or whether any areas meet the definition of ''critical habitat.''

As discussed earlier in this document, there is currently no imminent threat of collection or vandalism identified under Factor B for this species, and identification and mapping of critical habitat is not expected to initiate any such threat. In our SSA report and proposed listing determination for the Florida Keys mole skink, we determined that the present or threatened destruction, modification, or curtailment of habitat or range is a threat to Florida Keys mole skinks. Therefore, because none of the circumstances enumerated in our regulations at 50 CFR 424.12(a)(1) have been met, we have determined that the designation of critical habitat is prudent for the Florida Keys mole skink.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the Florida Keys mole skink 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) Data sufficient to perform required analyses are lacking, or

(ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of ''critical habitat.''

When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where this species is 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 the Florida Keys mole skink.

Physical or Biological Features

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. The regulations at 50 CFR 424.02 define ''physical or biological features'' as the features that support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or absence of a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, we may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

As described in the *Species Needs* section in the Proposed Listing Determination, above, and the SSA report (Service 2022, pp. 30–31), the resource and demographic needs for breeding, feeding, sheltering, and dispersal of the Florida Keys mole skink are characterized as:

- Beach and dune, coastal berm, rockland hammock, and pine rockland habitats that provide ground cover in the form of leaf litter and wrack material skinks need for nesting, arthropod and insect food sources, and cover;
- Dry, loose, sandy, permeable, or friable (crumbly in texture) soils for digging of nest cavities and for their swimming movement;
- Ground cover such as leaf litter, debris, or tidal wrack (for thermoregulation, food sources, cover from predators, and breeding); and
- Arthropod and insect food sources (found within the ground cover of the habitat).

Habitats

The Florida Keys mole skink is endemic to the Florida Keys and has been documented on 23 islands from Key Largo in the Upper Keys to Loggerhead Key of the Dry Tortugas in the Distal Sand Keys (see Background in Proposed Listing Determination, above). The species is most frequently surveyed on Lower Keys beaches, and therefore, that is where the species is most documented; specifically the area above mean higher high water (increase of tides above the mean high tide) where wrack is deposited and sand dunes occur (Emerick 2017b, p. 5; Service 2022, pp. 24–27). However, beach formation is not common in the Florida Keys, and there are no naturally occurring beaches in the Upper Keys, yet the Florida Keys mole skink is still

found in this region (Clark 1990, p. 6; Zambrano 2021, pers. comm.). Though surveys have been limited mostly to beaches, with some in coastal berms hammocks, Florida Keys mole skinks have been documented in a variety of both natural and altered habitats along the coast and on the interior of islands (Service 2022, pp. 21, 24–27). Other habitat types they have been documented in include coastal cactus and rock barrens, rockland hammocks, pine rocklands, and small areas of habitat with suitable substrate within other mapped landcover types, such as urban open land and developed areas (FNAI 2011, entire; Emerick 2017b, pp. 4–5; iNaturalist 2020, entire; Zambrano 2021, pers. comm.).

Most areas where the Florida Keys mole skink have been documented have an open canopy and are sparsely vegetated with herbaceous ground cover, shrubs, and small trees (beaches, coastal berms, rock barrens, urban open land) (FNAI 2010, pp. 77, 81, 109, 2015; Kawula and Redner 2018, pp. 13–16). Florida Keys mole skinks have also been documented in coastal maritime hammock and rockland hammocks, both of which may have a closed canopy and are generally more vegetated but can have suitable substrate under the leaf litter (FNAI 2010, pp. 29–30, 91–92; Kawula and Redner 2018, pp. 9, 14). Florida Keys mole skinks have also been documented in pine rockland habitat, which has an open pine canopy with a mixed shrub and herb understory and requires fire approximately every 3 to 7 years to maintain an open shrub layer (FNAI 2010, pp. 69–70; Kawula and Redner 2018, p. 12).

Specific information on the amount of space needed for individual and population growth (dispersal distance, home range, and carrying capacity) for this species is lacking. The closest related species with information on home range and dispersal distances is the sand skink (*P. reynoldsi*), which occurs in scrub habitat on the Lake Wales Ridge of central Florida. Maximum dispersal distances for sand skinks in Florida scrub habitat have been documented at 115 ft (35 m) to 460 ft (140 m) although just a few adults were recorded at distances greater than 328 ft (100 m) (Gianopulos 2001, p. 81; Mushinsky et al. 2001, p. 54; McCoy et al. 2020, p. 8). The larger home range distances of a few individual sand skinks beyond 328 ft (100 m) could be attributed to localized resource limitations. The total size of an area needed to support a population of sand skinks or Florida Keys mole skinks has not been determined (Service 2022, p. 29).

While the amount of habitat necessary to support Florida Keys mole skink individual and population growth and normal behavior is unknown, preservation of the features described above is essential for the species to protect their home ranges. Therefore, based on the information above, we identify natural upland habitats (primarily sand beach, beach dune, coastal berm, rockland hammocks, and pine rocklands) as physical or biological features essential to the conservation of the Florida Keys mole skink.

Soils

Florida Keys mole skinks require sandy soils for nesting that are generally dry and unconsolidated to allow for the digging of nest cavities and their swimming movement through substrate (Service 2022, p. 28). No nests have been identified for the Florida Keys mole skink, but nest depth is probably dependent upon substrate depth and is documented to vary greatly for other mole skinks from 0.13 in (0.33 cm) to 6.0 ft (1.83 m) (Neill 1940, p. 266; Hamilton and Pollack 1958, p. 27). Because of the predominantly limestone, prehistoric coral reef, and rocky makeup of the Florida Keys archipelago, only a few areas provide the sandy, dry, unconsolidated soils considered preferred by the Florida Keys mole skink for nesting. In the Florida Keys, the sandy, dry, unconsolidated soil types are predominantly Beach and Bahia Fine sand and total only approximately 440 ac (178 ha) of soils in the archipelago (U.S. Department of Agriculture 2021 (USDA), p. 1). However, Florida Keys mole skinks have been documented in several other soil types that are also likely suitable for mole skink reproduction and movement based on their official soil series descriptions (dry, loose, sandy, permeable, or friable (crumbly in texture)) (USDA 2022, n.p.).

Based on the information above, we consider suitable habitats containing dry, loose, sandy, permeable, or friable soils as a physical or biological feature essential to the conservation of the species.

Ground Cover

Florida Keys mole skinks rely on ground cover over loose substrate as protection from predators and the insects existing in this ground cover as a food source. In this case, ground cover as a resource for the Florida Keys mole skink refers to a variety of materials such as leaf litter, logs, vegetative debris, and tidal wrack (deposited above the mean higher high-water level) rather than a strictly vegetative ground cover such as grass (Service 2022, p. 18). These ground cover and substrate conditions also provide areas for reproduction and thermoregulatory refugia.

As a reptile, the Florida Keys mole skink is a cold-blooded (ectothermic) animal and therefore highly dependent on the air and soil temperature to thermoregulate (maintain body core temperature) (Mount 1963, p. 362). The Florida Keys mole skink is specialized to live within a stable and relatively narrow thermal tropical environment. It is a thermoconformer, lacking the capacity to adjust or regulate to changes in temperature outside of this stable and relatively narrow thermal range in which it occurs (Gallagher et al. 2015, p. 62). Ground cover moderates soil temperatures and provides shade to assist in the skinks' thermoregulation in hot climates.

Based on the information above, we consider suitable habitats containing appropriate ground cover including tidal wrack, leaf litter, or vegetative debris for protection from predators and temperature extremes, sources of food, and areas for reproduction as a physical or biological feature essential for the Florida Keys mole skink.

Food Source

The Florida Keys mole skink preys on a variety of small insects (Hamilton and Pollack 1958, p. 26; Mount 1963, p. 364; Technical Team Working Group 2016, pers. comm.). The make-up of diets has been shown to shift seasonally with prey relative to abundance. Prey is also thought to be caught and eaten within ground cover material or underground (Mount 1963, p. 365). Since their feeding behavior is generalist and opportunistic (preying on those insects that are present and are of a size they can ingest), the prey-related requirements (abundance, diversity, range) to sustain a viable population of Florida Keys mole skink is unknown, but appear to be sufficient (Service 2022, pp. 28, 31).

Based on the information above, we consider habitats containing appropriate ground cover for arthropod and insect food sources as a physical or biological feature essential for the Florida Keys mole skink.

Summary of Essential Physical or Biological Features

We derive the specific physical or biological feature essential to the conservation of the Florida Keys mole skink from studies of the species' habitat, ecology, and life history. Additional information can be found in the Proposed Listing Determination,

above, and the SSA report (Service 2022, entire). We have determined that the following physical or biological feature is essential to the conservation of the Florida Keys mole skink:

Natural habitats (including, but not limited to beaches, dunes, coastal berms, rockland hammocks, and pine rocklands) along the coast or on the interior of the Florida Keys that contain:

(a) Suitable soils (dry, loose, sandy, permeable, or friable soils) for movement and nesting; and

(b) Sufficient, appropriate ground cover (including, but not limited to tidal wrack deposited above the mean high-water line, leaf litter, and vegetative debris) for protection from predators and temperature extremes, sources of food, and areas for reproduction.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. The feature essential to the conservation of the Florida Keys mole skink may require special management considerations or protection to reduce threats posed by climate change (sea level rise, more frequent tidal flooding, and increasing intensity of storm events); recreational activities (beach cleaning to remove wrack and other vegetative material); and human-caused disasters and response activities (*e.g.,* oil spills). For an in-depth discussion of threats, see Summary of Biological Status and Threats in the Proposed Listing Determination, above, and the SSA report (Service 2022, pp. 32–49).

Management activities that could ameliorate these threats include (but are not limited to): maintaining and protecting suitable habitat within occupied areas; identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; coordinating with landowners and local managers to implement best management practices during regular beach cleaning activities; conducting public outreach and education at all occupied areas; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat.

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 specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat.

We are proposing to designate critical habitat in areas within the geographical area occupied by the species at the time of listing. We also are proposing to designate specific areas outside the geographical area occupied by the species because we have determined those areas are essential for the conservation of the species. By the year 2040, 8 out of 15 areas occupied by the Florida Keys mole skink at the time of listing will lose 75 percent or more of their available habitat under the lowest projected sea level rise scenario of 2.0 ft (0.7 m), and 12 of 15 occupied areas will lose 90 percent or more under the highest sea level rise scenario of 4.0 ft (1.2 m) (Service 2022, pp. 6–7). Islands with recent and historical populations of the Florida Keys mole skink are projected to be less affected by sea level rise under all scenarios (especially in the Upper Keys) than islands with current populations (see *Future Condition* in Proposed Listing Determination, above). Therefore, we identified suitable habitat within recently and historically occupied areas that met the definition of critical habitat and that are essential to provide for species redundancy into the foreseeable future. These unoccupied areas are both essential for the conservation of the species and contain habitat essential to the life history of the species.

We developed the following criteria for determining the specific areas that contain the physical and biological feature essential to the conservation of the species:

(1) Genetic differentiation and geographic extent—To maintain viability in populations of the Florida Keys mole skink that represent and conserve the genetic differentiation and habitat in each of the four geographic regions of the Florida Keys (see *Current Condition* in Proposed Listing Determination, above), critical habitat units should encompass all current populations, ensuring that each of the four geographic regions of the Florida Keys are represented.

(2) Climate change resilience—To provide sufficient amounts of suitable habitat for the Florida Keys mole skink predicted to be less affected by sea level rise (see *Future Condition* in Proposed Listing Determination, above), critical habitat should include at least one unit that is less vulnerable to sea level rise within each of the four geographic regions of the Florida Keys.

(3) Structural connectivity—To maintain, enhance, and establish connectivity within Florida Keys mole skink populations (see Summary of Biological Status and Threats in Proposed Listing Determination, above), critical habitat units should incorporate corridors for connectivity, dispersal, and refuge areas during high tide flooding and storm events.

Sources of data used for the delineation of critical habitat units included:

(1) Confirmed presence data compiled in our Geographic Information System database from 1862 through 2021 and provided by multiple databases maintained by museums, universities, and State agencies in Florida; State agency reports; and numerous survey reports for projects throughout the species' range.

(2) Habitat and land use cover types from the Cooperative Land Cover map (version 3.5), developed by the Florida Fish and Wildlife Conservation Commission and Florida Natural Areas Inventory (FWC and FNAI 2021, entire), determined to be suitable for the species based on peer-reviewed articles on this species or similar species, and gray literature by researchers involved in wildlife biology and conservation activities.

(3) Monroe County soil data layers from the U.S. Department of Agriculture's Natural Resources Conservation Service Web Soil Survey (USDA, entire) determined to be suitable for the species based on their official soil series descriptions (see *Soils,* above).

(4) Composite shoreline data representing the mean high-water line from the National Oceanic and Atmospheric Administration's Office of Coastal Management (NOAA 2007, entire).

(5) Global and regional sea level rise scenarios for the United States from the National Oceanic and Atmospheric Administration's National Ocean Service Center for Operational

Oceanographic Products and Services (Sweet et al. 2017).

(6) Environmental Systems Research Institute's (ESRI's) Aeronautical Reconnaissance Coverage Geographical Information System (ArcGIS) online basemap aerial imagery (2018 to 2020) to cross-check Cooperative Land Cover data and ensure the presence of the physical or biological feature.

For areas within the geographic area occupied by the Florida Keys mole skink at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) We determined occupied areas for this species by reviewing the best available scientific and commercial data on occurrence records. As discussed in the Background section of the Proposed Listing Determination, Florida Keys mole skinks are cryptic and adapted to living underground. Because of their cryptic nature, we determined that if suitable habitat containing the physical and biological feature was still present in an area where a Florida Keys mole skink had been detected between 2000 and 2021, that there was a high likelihood that the species would still be present. Therefore, based on the best available information, we defined occupied areas as islands with at least one current occurrence record ranging from 2000 to 2021.

(2) We selected all suitable habitat that contained the physical or biological feature as determined using the data sources listed above, and within a 328 ft (100 m) radius (the estimated home range of Florida Keys mole skink, see *Habitats,* above), for all current, recent, and historical occurrence records. When the exact location of an occurrence record could not be determined for an island (a verified record, but only general location information, such as the name of the island, was provided), or the location was accurate but in unsuitable habitat (developed areas), all suitable habitat on the island was selected.

(3) We selected additional suitable habitat that extended beyond the 328 ft (100 m) radius to include corridors for greater dispersal due to population expansions, localized resource limitations, and sea level rise, storm surge, or tidal flooding refugia areas for the species.

(4) We then constrained the boundary of a critical habitat unit based on potential effects of physical barriers (for example, roads wider than two lanes, permanent water channels, or unsuitable habitat greater than 820 ft (250 m) wide) that cause habitat fragmentation or prevent connectivity and dispersal opportunities within units, as we consider that individuals would be unable or unlikely to pass such barriers (Mercier 2018, pp. 21–23). On the shorelines of critical habitat units, boundaries were constrained to whichever occurred furthest offshore including the habitat boundary (for upland habitats only), mean high water line, or shoreline that was visible in aerial imagery.

For areas outside the geographic area currently occupied by the species at the time of listing, we looked at islands considered recently occupied (from 1970 to 1999) and historically occupied (prior to 1970) by the Florida Keys mole skink. We analyzed recently and historically occupied islands for those that contained suitable habitat and evaluated each site for its potential conservation contribution based on quality of habitat, vulnerability to climate change, specifically sea level rise, high tide flooding, and increased intensity of storm events, and existing protections and management of the habitat and sites. Based on these criteria, we identified five islands with recent or historical populations that contained appropriate habitat for the species and are essential for the conservation of the species, but that are considered unoccupied at the time of listing. For areas outside the geographic area occupied by the Florida Keys mole skink at the time of listing, we delineated critical habitat unit boundaries using the following criteria:

(1) Based on the best available information, we defined unoccupied areas as islands with at least one recent (1970 to 1999) or historical (before 1970) occurrence record.

(2) To ensure unoccupied areas would provide skink habitat into the future, we analyzed impacts to potential habitat on each island containing recent or historical occurrence records and included only those that will still have habitat remaining after the most extreme scenario of 6.0 ft (1.8 m) of sea level rise by the year 2060 (see *Future Condition* in Proposed Listing Determination, above).

(3) We selected all suitable habitat that contained the physical or biological feature as determined using Criteria 2–4 outlined above for occupied units.

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 because such lands lack the physical or biological feature necessary for the Florida Keys mole skink. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this 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 physical or biological feature in the adjacent critical habitat.

We propose to designate as critical habitat lands that we have determined are occupied at the time of listing (*i.e.,* currently occupied) and that contain the physical or biological feature essential to support life-history processes of the species. We have also identified, and propose for designation as critical habitat, unoccupied areas that are essential for the conservation of the species. Nineteen units are proposed for designation based on current, recent, or historical occurrences and the physical or biological feature being present to support the Florida Keys mole skink's life-history processes.

The proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under Proposed Regulation Promulgation. 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 *https://www.regulations.gov* at Docket No. FWS–R4–ES–2022–0104 and on our internet site (*https://www.fws.gov/office/florida-ecological-services/library*).

Proposed Critical Habitat Designation

We are proposing to designate approximately 7,068 ac (2,860 ha) in 19 units as critical habitat for the Florida Keys mole skink. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Florida Keys mole skink. The 19 areas we propose as critical habitat are: (1) Key Largo, (2) Plantation Key, (3) Upper Matecumbe Key, (4) Indian Key, (5) Lower Matecumbe Key, (6) Long Key, (7) Vaca Key, (8) Boot Key, (9) Bahia Honda Key, (10) Scout Key, (11) Big Pine Key, (12) Cook's Island, (13) Big Munson Island, (14) Content Key, (15) Sawyer Key, (16) Key West, (17)

Boca Grande Key, (18) Marquesas Key, and (19) Loggerhead Key. Table 5 shows the proposed critical habitat units, occupancy, land ownership, and the approximate area of each unit.

TABLE 5—PROPOSED CRITICAL HABITAT UNITS FOR THE FLORIDA KEYS MOLE SKINK

[Area estimates reflect all land within critical habitat unit boundaries. Note: Area sizes may not sum due to rounding.]

Unit	Occupied?	Ownership: acres [hectares]					Total area: acres [hectares]
		Federal	State	Local	Private	Unknown/ undefined	
1. Key Largo	Yes	608 [246]	2,176 [881]	85 [34]	158 [64]	130 [53]	3,157 [1,278]
2. Plantation Key	No	0	63 [26]	29 [12]	177 [72]	6 [2]	275 [111]
3. Upper Matecumbe Key	No	0	24 [10]	18 [7]	93 [37]	5 [2]	140 [57]
4. Indian Key	No	0	12 [5]	0	0	0	12 [5]
5. Lower Matecumbe Key	Yes	0	34 [14]	6 [3]	41 [17]	13 [5]	95 [38]
6. Long Key	Yes	0	350 [142]	20 [8]	2 [1]	32 [13]	405 [164]
7. Vaca Key	Yes	0	0	1 [<1]	69 [28]	1 [1]	72 [29]
8. Boot Key	Yes	0	14 [6]	<1 [<1]	206 [83]	1 [<1]	221 [90]
9. Bahia Honda Key	Yes	0	57 [23]	0	0	8 [3]	65 [26]
10. Scout Key	No	0	9 [4]	33 [13]	7 [3]	5 [2]	53 [21]
11. Big Pine Key	Yes	1,547 [626]	412 [167]	80 [32]	79 [32]	40 [16]	2,159 [874]
12. Cook's Island	Yes	0	0	0	13 [5]	2 [1]	15 [6]
13. Big Munson Island	Yes	0	0	0	50 [20]	1 [1]	51 [21]
14. Content Keys	Yes	6 [3]	1 [<1]	0	0	3 [1]	10 [4]
15. Sawyer Key	Yes	10 [4]	0	0	0	1 [<1]	11 [4]
16. Key West	Yes	0	15 [6]	10 [4]	16 [6]	1 [1]	42 [17]
17. Boca Grande Key	Yes	71 [29]	0	0	0	0	71 [29]
18. Marquesas Key	Yes	149 [60]	0	0	0	0	149 [60]
19. Loggerhead Key	No	65 [26]	0	0	0	0	65 [26]
Total	N/A	2,456 [994]	3,168 [1,284]	283 [115]	911 [365]	250 [101]	7,068 [2,860]

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Florida Keys mole skink, below.

Unit 1: Key Largo, Monroe County, Florida

Unit 1 encompasses approximately 3,157 ac (1,278 ha) within Monroe County and the city of Key Largo, of the upper Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. As no sandy beaches occur on Key Largo, the majority of Florida Keys mole skink habitat on the island is rockland hammock with small areas of other suitable habitats along the edges or within the unit. This unit includes Federal lands within Crocodile Lake National Wildlife Refuge (608 ac (246 ha)), State lands within Dagny Johnson Botanical State Park, John Pennekamp Coral Reef State Park, and the Florida Keys Wildlife and Environmental Area (2,176 ac (881 ha)), local lands (85 ac (34 ha)), and property in private or unknown or undefined ownership (288 ac (117 ha)). The entirety of Unit 1 overlaps with designated critical habitat for the American crocodile (*Crocodilus acutus*), Cape Sable thoroughwort (*Chromolaena frustrata*), and Florida semaphore cactus (*Consolea corallicola*).

The habitat in the northern part of the unit(north of where U.S. Route 1 turns west to the Florida mainland) is surrounded by the Atlantic Ocean to the east and the Florida Bay to the west. Habitat consists primarily of contiguous habitat owned by several Federal agencies (National Park Service, U.S. Navy, U.S. Coast Guard, and the Service), in which the Service owns the majority as Crocodile Lake National Wildlife Refuge. The other Federal landowners have or are in the process of turning over ownership to the Service and records may not reflect this yet. The State of Florida owns and manages Dagny Johnson Key Largo Hammock Botanical Park. Monroe County, local government, and private entities own additional habitat within the northern part of the unit. The physical and biological feature in the northern part of the unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; and conducting public outreach and education to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events).

The habitat in the southern part of the unit (south of where U.S. Route 1 turns west to the Florida mainland) is surrounded or fragmented by residential and commercial development. The majority of habitat consists of lands owned by private entities and the State of Florida (John Pennekamp Coral Reef State Park). Smaller portions of habitat are owned by Monroe County. Habitat connectivity among occurrences is lacking within the southern part of the unit; fragmentation is from residential and light commercial development, as well as canals and two-lane roads. The physical and biological feature in the southern part of the unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; and conducting public outreach and education to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events).

Unit 2: Plantation Key, Monroe County, Florida

Unit 2 encompasses approximately 275 ac (111 ha) in Monroe County and

the village of Islamorada, of the upper Florida Keys. This unit is considered unoccupied. As few sandy beaches occur on Plantation Key, the majority of Florida Keys mole skink habitat on the island is rockland hammock with small areas of other suitable habitats along the edges or within the unit. This unit includes State lands within the Florida Keys Wildlife and Environmental Area (63 ac (26 ha)), local lands (29 ac (12 ha)), and property in private or unknown/undefined ownership (183 ac (74 ha)). The entirety of Unit 2 overlaps with designated critical habitat for the American crocodile. The habitat in this unit is surrounded or fragmented by residential and commercial development. Threats from development are moderate, and threats from climate change are low in this unit because of its higher elevation (see Summary of Biological Status and Threats in Proposed Listing Determination, above).

Although it is currently considered unoccupied, the Florida Keys mole skink was documented on the island in the past (FNAI 2011, entire), and it is possible that the lack of current detections could be due to lack of surveys. Also, this unit constitutes habitat for the species because it contains the physical or biological feature necessary for the life history of the species. This unit is essential for the conservation of the species because it will still provide habitat for potential reintroductions in the case of sea level rise (as described in *Future Condition* in Proposed Listing Determination, above, and Service 2022, pp. 61–70) or stochastic events (such as hurricanes), should other areas of suitable habitat be destroyed, or the Florida Keys mole skink be extirpated from one of its currently occupied locations.

Unit 3: Upper Matecumbe Key, Monroe County, Florida

Unit 3 encompasses approximately 140 ac (57 ha) in Monroe County and the village of Islamorada, of the upper Florida Keys. This unit is considered unoccupied. As few sandy beaches occur on Upper Matecumbe Key, the majority of Florida Keys mole skink habitat on the island is rockland hammock with small areas of other suitable habitats along the edges or within the unit. This unit includes State lands within the Lignumvitae Key Botanical and Indian Key Historic State Parks (24 ac (10 ha)), local lands (18 ac (7 ha)), and property in private or unknown/undefined ownership (97 ac (39 ha)). The majority (94 percent) of Unit 3 overlaps with designated critical habitat for the American crocodile and Cape Sable thoroughwort. The habitat in this unit is surrounded or fragmented by residential and commercial development. Threats from development and climate change are moderate in this unit (see Summary of Biological Status and Threats in Proposed Listing Determination, above).

Although it is currently considered unoccupied, the Florida Keys mole skink was documented on the island in the past (FNAI 2011, entire), and it is possible that the lack of current detections could be due to lack of surveys. Also, this unit constitutes habitat for the species because it contains the physical or biological feature necessary for the life history of the species. This unit is essential for the conservation of the species because it will still provide habitat for potential reintroductions in the case of sea level rise (as described in *Future Condition* in Proposed Listing Determination, above, and Service 2022, pp. 61–70) or stochastic events (such as hurricanes), should other areas of suitable habitat be destroyed, or the Florida Keys mole skink be extirpated from one of its currently occupied locations. Additionally, a portion of this unit is on State lands, where reintroductions would be likely.

Unit 4: Indian Key, Monroe County, Florida

Unit 4 encompasses approximately 12 ac (5 ha) within Monroe County and the village of Islamorada, of the upper Florida Keys. This unit is considered unoccupied. The habitat in this unit is classified by the Cooperative Landcover Classification map (FWC and FNAI 2021) as mangrove swamp but is more accurately described as ruderal (historically cleared area with recolonizing native vegetation) with a mangrove and Keys tidal rock barren fringe (FDEP 2012, entire). The unit encompasses the entire island of Indian Key, which is owned by the State as part of Indian Key Historic State Park. The habitat in this unit is contiguous since there is very little development on the island, which is only accessible by boat. The threat of development is low due to designation as a state park and threats from climate change are low because of its higher elevation (see Summary of Biological Status and Threats in Proposed Listing Determination, above).

Although it is currently considered unoccupied, the Florida Keys mole skink was documented on the island in the past (FNAI 2011, entire), and it is possible that the lack of current detections could be due to lack of surveys. Also, this unit constitutes habitat for the species because it contains the physical or biological feature necessary for the life history of the species. This unit is essential for the conservation of the species because it will still provide habitat for potential reintroductions in the case of sea level rise (as described in *Future Condition* in Proposed Listing Determination, above, and Service 2022, pp. 61–70) or stochastic events (such as hurricanes), should other areas of suitable habitat be destroyed, or the Florida Keys mole skink be extirpated from one of its currently occupied locations. Additionally, the entire unit is on State lands, where reintroductions would be likely.

Unit 5: Lower Matecumbe Key, Monroe County, Florida

Unit 5 encompasses approximately 95 ac (38 ha) in Monroe County and the village of Islamorada, of the upper Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. As few sandy beaches occur on Lower Matecumbe Key, the majority of Florida Keys mole skink habitat on the island is rockland hammock with small areas of other suitable habitats along the edges or within the unit. This unit includes State lands that are part of Lignumvitae Key Botanical State Park (34 ac (14 ha)), local lands (6 ac (3 ha)), and property in private or unknown/undefined ownership (54 ac (22 ha)). The majority (99 percent) of Unit 5 overlaps with designated critical habitat for the American crocodile, Cape Sable thoroughwort, and piping plover (*Charadrius melodus*). The habitat in this unit is surrounded and/or fragmented by residential and commercial development. The physical and biological feature in this unit may require special management considerations or protection identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-

caused disasters and response activities (*e.g.,* oil spills).

Unit 6: Long Key, Monroe County, Florida

Unit 6 encompasses approximately 405 ac (164 ha) within Monroe County and the city of Layton, of the middle Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Long Key is a mix of sand beach, beach dune, coastal berm, rockland hammock, and some suitable upland mangrove fringe areas. This unit includes State lands that are part of Long Key State Park (350 ac (142 ha)), local lands (20 ac (8 ha)), and property in private or unknown/undefined ownership (34 ac (14 ha)). The majority (99 percent) of Unit 6 overlaps with designated critical habitat for the American crocodile, Cape Sable thoroughwort, and loggerhead sea turtle (*Caretta caretta*). The habitat in this unit is primarily contiguous with residential and commercial development located on both ends of the unit. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 7: Vaca Key, Monroe County, Florida

Unit 7 encompasses approximately 72 ac (29 ha) within Monroe County and the city of Marathon, within the middle Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. As few sandy beaches occur on Vaca Key, the majority of Florida Keys mole skink habitat on the island is rockland hammock with small areas of upland mangrove habitats along the edges or within the unit. This unit includes local lands (1 ac (less than 1 ha)) and property in private or unknown or undefined ownership (71 ac (29 ha)), 62 ac (25 ha) of which are part of Crane Point Hammock, a preserve owned by the Florida Keys Land and Sea Trust Incorporated. The habitat in this unit is surrounded or fragmented by residential and commercial development. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; and conducting public outreach and education to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events).

Unit 8: Boot Key, Monroe County, Florida

Unit 8 encompasses approximately 221 ac (90 ha) within Monroe County and the city of Marathon, within the middle Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Boot Key is a mix of coastal berm, rockland hammock, and some suitable upland mangrove fringe areas. This unit includes State lands (14 ac (6 ha)) and property in private or unknown or undefined ownership (207 ac (84 ha)). The habitat in this unit is primarily contiguous as very little development occurs on the island, which is only accessible by boat. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 9: Bahia Honda Key, Monroe County, Florida

Unit 9 encompasses approximately 65 ac (26 ha) within Monroe County in the lower Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Bahia Honda Key is a mix of sand beach, beach dune, coastal berm, maritime hammock, and some suitable upland mangrove fringe areas. This unit is almost entirely within Bahia Honda State Park (57 ac (23 ha)), with approximately 8 ac (3 ha) of unknown/undefined ownership. The majority (98 percent) of Unit 9 overlaps with designated critical habitat for the loggerhead sea turtle and piping plover. The habitat in this unit is primarily contiguous with low-intensity development located on both ends of the unit. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 10: Scout Key, Monroe County, Florida

Unit 10 encompasses approximately 53 ac (21 ha) within Monroe County in the lower Florida Keys. This unit is considered unoccupied. Habitat on Scout Key (also called West Summerland Key) is a mix of beach dune and rockland hammock with small areas of other suitable habitats along the edges or within the unit. This unit includes State lands (9 ac (4 ha)), local lands (33 ac (13 ha)), and property in private or unknown/undefined ownership (12 ac (5 ha)). The habitat in this unit is primarily contiguous with

boy scout and girl scout camps located on the southwest end of the unit. Threats from development and climate change are moderate in this unit (see Summary of Biological Status and Threats in Proposed Listing Determination, above).

Although it is currently considered unoccupied, the Florida Keys mole skink was documented on the island in the past (FNAI 2011, entire), and it is possible that the lack of current detections could be due to lack of surveys. Also, this unit constitutes habitat for the species because it contains the physical or biological feature necessary for the life history of the species. This unit is essential for the conservation of the species because it will still provide habitat for potential reintroductions in the case of sea level rise (as described in *Future Condition* in Proposed Listing Determination, above, and Service 2022, pp. 61–70) or stochastic events (such as hurricanes), should other areas of suitable habitat be destroyed, or the Florida Keys mole skink be extirpated from one of its currently occupied locations. Additionally, a portion of the unit is on State lands, where reintroductions would be likely.

Unit 11: Big Pine Key, Monroe County, Florida

Unit 11 encompasses approximately 2,159 ac (874 ha) within Monroe County and the town of Big Pine Key, in the lower Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. The habitat in the northern part of the unit (north of U.S. Route 1) is a mix of pine rockland and rockland hammock with small areas of other suitable habitats along the edges or within the unit. In the southern part of the unit (south of U.S. Route 1), the habitat is a mix of beach dune, coastal berm, and rockland hammock with small areas of other suitable habitats bordering or within the unit. This unit includes Federal lands within the National Key Deer Refuge (1,547 ac (626 ha)), State lands (412 ac (167 ha)), local lands (80 ac (32 ha)), and property in private or unknown or undefined ownership (120 ac (49 ha)). The majority (73 percent) of Unit 11 overlaps with designated critical habitat for the Cape Sable thoroughwort, Florida semaphore cactus, Bartram's scrub-hairstreak butterfly (*Strymon acis bartrami*), and Florida leafwing butterfly (*Anaea floridalis*). The habitat in the northern part of the unit is surrounded or fragmented by residential communities, light commercial development, and two-lane roads (primarily in the central and southern portions of the northern part of the unit). The habitat in the southern part of the unit is primarily contiguous with residential development to the west of the unit. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 12: Cook's Island, Monroe County, Florida

Unit 12 encompasses approximately 15 ac (6 ha) within Monroe County and the town of Big Pine Key, in the lower Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Cook's Island is mostly coastal berm with some areas of suitable upland mangroves along the edges of the unit. This unit is almost entirely in private ownership (13 ac (5 ha)), with approximately 2 ac (1 ha) of unknown or undefined ownership. The habitat in this unit is primarily contiguous with low-density residential development scattered along the southern shoreline of the island, which is only accessible by boat. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 13: Big Munson Island, Monroe County, Florida

Unit 13 encompasses approximately 51 ac (21 ha) within Monroe County and the town of Big Pine Key, in the lower Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Big Munson Island is a mix of sand beach, coastal berm, and rockland hammock with small areas of other suitable habitats along the edges or within the unit. This unit is almost entirely in private ownership by the Boy Scouts of America (50 ac (20 ha)), with approximately 1 ac (1 ha) of unknown or undefined ownership. Approximately half (52 percent) of Unit 13 overlaps with designated critical habitat for the Cape Sable thoroughwort. The habitat in this unit is contiguous since very little development occurs on the island, which is accessible only by boat. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 14: Content Key, Monroe County, Florida

Unit 14 encompasses approximately 10 ac (4 ha) within Monroe County in the lower Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Content Key is a mix of sand beach, coastal berm, and some suitable upland mangrove fringe areas. This unit includes Federal lands within the

National Key Deer Refuge and the Great White Heron National Wildlife Refuge (6 ac (3 ha)), State lands (1 ac (less than 1 ha)), and property with unknown/undefined (3 ac (1 ha)). The habitat in this unit is contiguous since there is no development on the island, which is accessible only by boat. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 15: Sawyer Key, Monroe County, Florida

Unit 15 encompasses approximately 11 ac (4 ha) within Monroe County in the lower Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Sawyer Key is a mix of beach dune, rockland hammock, and some suitable upland mangrove fringe areas. This unit is almost entirely in Federal ownership as part of the Great White Heron National Wildlife Refuge (10 ac (4 ha)), with approximately 1 ac (less than 1 ha) of unknown or undefined ownership. The habitat in this unit is contiguous since there is no development on the island, which is accessible only by boat. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 16: Key West, Monroe County, Florida

Unit 16 encompasses approximately 42 ac (17 ha) within Monroe County and the city of Key West, in the lower Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Key West is mostly sand beach and a few small patches of rockland hammock. This unit includes State lands within Fort Zachary Taylor State Park (15 ac (6 ha)), local lands (10 ac (4 ha)), and property in private or unknown/undefined ownership (17 ac (7 ha)). Under section 4(a)(3)(B)(i) of the Act, we are exempting Naval Air Station Key West lands within this unit (8 ac (3 ha)) from the critical habitat designation because the U.S. Navy within the DoD has an approved INRMP that provides benefits to the Florida Keys mole skink and its habitat (see Exemptions, below). The habitat in this unit is surrounded or fragmented by residential and commercial development. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; coordinating with landowners and local managers to implement best management practices during regular beach cleaning activities; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events), recreational activities (beach cleaning to remove wrack and other vegetative material), and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 17: Boca Grande Key, Monroe County, Florida

Unit 17 encompasses approximately 71 ac (29 ha) within Monroe County, in the Distal Sand Region of the Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Boca Grande Key is a mix of sand beach, beach dune, coastal berm, rockland hammock and some suitable upland mangrove fringe areas. This unit is entirely in Federal ownership as part of the Key West National Wildlife Refuge. The majority (95 percent) of Unit 17 overlaps with designated critical habitat for the Cape Sable thoroughwort, loggerhead sea turtle, and piping plover. The habitat in this unit is contiguous since there is no development on the island, which is accessible only by boat. The physical and biological feature in this unit may require special management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills).

Unit 18: Marquesas Key, Monroe County, Florida

Unit 18 encompasses approximately 149 ac (60 ha) within Monroe County, in the Distal Sand Region of the Florida Keys. This unit is considered occupied by the species and contains the physical or biological feature essential to its conservation. Habitat on Marquesas Key is mostly coastal berm with a thin sandy shoreline. This unit is entirely in Federal ownership as part of the Key West National Wildlife Refuge. The entirety of Unit 18 overlaps with designated critical habitat for the loggerhead sea turtle and piping plover. The habitat in this unit is contiguous since there is no development on the island, which is accessible only by boat. The physical and biological feature in this unit may require special

management considerations or protection such as identifying areas where beach erosion is occurring or habitat is succeeding to mangrove swamp or other coastal wetlands due to sea level rise and implementing renourishment or restoration/protection activities further upland; conducting restoration and debris cleanup after storms while concurrently minimizing disturbance to Florida Keys mole skinks and their habitat; establishing protocols and agreements to allow storm-enhanced habitats to persist; conducting public outreach and education; and preparing disaster response plans and conducting trainings that consider Florida Keys mole skinks and their habitat to address threats from climate change (*e.g.,* sea level rise, high tide flooding, and storm events) and human-caused disasters and response activities (*e.g.,* oil spills) (see Special Management Considerations or Protection, above).

Unit 19: Loggerhead Key, Monroe County, Florida

Unit 19 encompasses approximately 65 ac (26 ha) within Monroe County, in the Distal Sand Region of the Florida Keys. This unit is considered unoccupied. Habitat on Loggerhead Key is sand beach and coastal uplands. This unit is entirely in Federal ownership as part of the Dry Tortugas National Park. Approximately 31 percent of Unit 19 overlaps with designated critical habitat for the loggerhead sea turtle. The habitat in this unit is contiguous since there is very little development on the island, which is accessible only by boat. The threat of development is low due to designation as a national park and threats from climate change are low because of its higher elevation (see Summary of Biological Status and Threats in Proposed Listing Determination, above).

Although it is currently considered unoccupied, the Florida Keys mole skink was documented on the island in the past (FNAI 2011, entire), and it is possible that the lack of current detections could be due to lack of surveys. Also, this unit constitutes habitat for the species because it contains the physical or biological feature necessary for the life history of the species. This unit is essential for the conservation of the species because it will still provide habitat for potential reintroductions in the case of sea level rise (as described in *Future Condition* in Proposed Listing Determination, above, and Service 2022, pp. 61–70) or stochastic events (such as hurricanes), should other areas of suitable habitat be destroyed, or the Florida Keys mole skink be extirpated from one of its currently occupied locations. Additionally, the entire unit is on National Park lands, where reintroductions would be likely.

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.

We published a final rule revising the definition of destruction or adverse modification on February 11, 2016 (81 FR 7214) (although we also published a revised definition after that (on August 27, 2019), that 2019 definition was subsequently vacated by the court in *CBD* v. *Haaland*). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.

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, authorized, or carried out by a Federal agency—do not require section 7 consultation.

Compliance with the requirements of section 7(a)(2) is documented 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 Service 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 set forth requirements for Federal agencies to reinitiate formal consultation on previously reviewed actions. These requirements apply when the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law) and, subsequent to the previous consultation: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat

designated that may be affected by the identified action.

In such situations, Federal agencies sometimes may need to request reinitiation of consultation with us, but the regulations also specify some exceptions to the requirement to reinitiate consultation on specific land management plans after subsequently listing a new species or designating new critical habitat. See the regulations for a description of those exceptions.

Application of the ''Destruction or Adverse Modification'' Standard

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat for the conservation of the listed species. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species. Factors considered in making these determinations may include the extent of the proposed action, including its temporal and spatial scale relative to the critical habitat unit within which it occurs; the specific purpose for which that unit was identified and designated as critical habitat; and the impact of the proposed action on the unit's likelihood of serving its intended conservation function or purpose and how this may appreciably diminish the value of the critical habitat designation as a whole.

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 violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that we may, during a consultation under section 7(a)(2) of the Act, consider likely to destroy or adversely modify critical habitat include, but are not limited to:

(1) Actions that would change the habitat or land cover type, if impacts are the extent and scale that they appreciably diminish the value of critical habitat as a whole. Such activities may include, but are not limited to, residential, commercial, or recreational development and road construction. These activities could further fragment tracts of suitable habitat, inhibiting dispersal by the Florida Keys mole skink between remaining areas of suitable habitat.

(2) Actions that would significantly alter the substrate, such as excavation or filling, if impacts are to the extent and scale that they appreciably diminish the value of critical habitat as a whole. Such activities may include, but are not limited to, residential, commercial, or recreational development, and road construction or maintenance. These activities could remove soils necessary for the movement and burrowing (nesting) of the Florida Keys mole skink.

(3) Actions that would alter the ground cover (*e.g.,* tidal wrack, leaf litter, or vegetative debris), if impacts are to the extent and scale that they appreciably diminish the value of critical habitat as a whole. Such activities may include, but are not limited to, road maintenance, habitat management activities (such as beach renourishment, shoreline armoring, nonnative species control, prescribed fire), and recreational management activities (such as beach raking or other cleaning methods to remove wrack or debris). These activities could remove the ground cover that the Florida Keys mole skink relies on for protection from predators and temperature extremes, sources of food, and areas for reproduction.

Exemptions

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

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

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

(2) A statement of goals and priorities;

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

(4) A monitoring and adaptive management plan.

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

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: ''The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the DoD, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act Improvement Act of 1997 (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.''

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military installations located within the range of the proposed critical habitat designation for the Florida Keys mole skink to determine if they meet the criteria for exemption from critical habitat under section 4(a)(3) of the Act. The following areas are DoD lands with completed, Service-approved INRMPs within the proposed critical habitat designation.

Approved INRMPs

Naval Air Station Key West

We have determined that approximately 150 ac (61 ha) of beach, coastal berm, coastal uplands, rockland hammock, mangrove, and Keys tidal rock barren habitat on Boca Chica Key and 8 ac (3 ha) of beach habitat on Key West contain the physical or biological feature essential to the conservation of the Florida Keys mole skink. These specific lands are owned and managed by the DoD as part of the Naval Air Station Key West. The Naval Air Station Key West has a current and completed INRMP, covering land owned by the DoD on Boca Chica Key and Key West (Department of the Navy 2020, entire). Though the Florida Keys mole skink is not specifically mentioned, the INRMP provides conservation and habitat management measures applicable to the species. The Service has approved these conservation and management measures, and the INRMP has been signed.

The goals listed in the Naval Air Station Key West INRMP include protecting and maintaining the land and water resources by continuation and enhancement of ecologically appropriate and best management practices compatible with the military mission, and protecting, maintaining, and restoring native vegetation communities and threatened and/or endangered species, including resident

and migratory animal populations while supporting the military mission (Department of the Navy 2020, pp. 1–4). In the Wildlife Management section of the INRMP, the main objective is to preserve, protect, and manage wildlife and their habitats to ensure healthy productive populations (Department of the Navy 2020, p. ES–5). Several specific actions under that objective should benefit the Florida Keys mole skink, including actions to protect natural communities necessary for the continuation of healthy wildlife populations and actions to avoid habitat fragmentation (Department of the Navy 2020, pp. 4–30–4–31).

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the Naval Air Station Key West INRMP and that conservation efforts identified in the INRMP will provide a benefit to Florida Keys mole skink. Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including approximately 158 ac (64 ha) of habitat (150 ac (61 ha) as a separate unit on Boca Chica Key and 8 ac (3 ha) as part of Unit 16 on Key West) in this proposed critical habitat designation because of this exemption.

Consideration of Impacts Under 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 designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. Exclusion decisions are governed by the regulations at 50 CFR 424.19 and the Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act, 81 FR 7226 (Feb. 11, 2016) (2016 Policy)—both of which were developed jointly with the National Marine Fisheries Service (NMFS). We also refer to a 2008 Department of the Interior Solicitor's opinion entitled ''The Secretary's Authority to Exclude Areas from a Critical Habitat Designation under Section 4(b)(2) of the Endangered Species Act'' (M–37016). We explain each decision to exclude areas, as well as decisions not to exclude, to demonstrate that the decision is reasonable.

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 discretion to exclude the area only if such exclusion would not result in the extinction of the species. In making the determination to exclude a particular area, 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. We describe below the process that we undertook for taking into consideration each category of impacts and our analyses of the relevant impacts.

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate the impacts that a specific critical habitat designation may have on restricting or modifying specific land uses or activities for the benefit of the species and its habitat within the areas proposed. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for this particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both ''with critical habitat'' and ''without critical habitat.''

The ''without critical habitat'' scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat (*e.g.,* under the Federal listing as well as other Federal, State, and local regulations). Therefore, the baseline represents the costs of all efforts attributable to the listing of the species under the Act (*i.e.,* conservation of the species and its habitat incurred regardless of whether critical habitat is designated). The ''with critical habitat'' scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts would not be expected without the designation of critical habitat for the species.

In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs. These are the costs we use when evaluating the benefits of inclusion and exclusion of particular areas from the final designation of critical habitat should we choose to conduct a discretionary 4(b)(2) exclusion analysis.

Executive Orders (E.O.s) 12866 and 13563 direct Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly affected entities, where practicable and reasonable. If sufficient data are available, we assess to the extent practicable the probable impacts to both directly and indirectly affected entities. Section 3(f) of E.O. 12866 identifies four criteria when a regulation is considered a ''significant'' rulemaking, and requires additional analysis, review, and approval if met. The criterion relevant here is whether the designation of critical habitat may have an economic effect of greater than $100 million in any given year (section 3(f)(1)). Therefore, our consideration of economic impacts uses a screening analysis to assess whether a designation of critical habitat for the Florida Keys mole skink is likely to exceed the economically significant threshold.

For this particular designation, we developed an incremental effects memorandum (IEM) considering the probable incremental economic impacts that may result from this proposed designation of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for the Florida Keys mole skink (Industrial Economics Incorporated [IEc] 2022, entire). We began by conducting a screening analysis of the proposed designation of critical habitat in order to focus our analysis on the key factors that are likely to result in incremental economic impacts. The purpose of the screening analysis is to filter out particular geographic areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. In particular, the screening analysis considers baseline costs (*i.e.,* absent critical habitat designation) and

includes any probable incremental economic impacts where land and water use may already be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. Ultimately, the screening analysis allows us to focus our analysis on evaluating the specific areas or sectors that may incur probable incremental economic impacts as a result of the designation. The presence of the listed species in occupied areas of critical habitat means that any destruction or adverse modification of those areas will also jeopardize the continued existence of the species. Therefore, designating occupied areas as critical habitat typically causes little if any incremental impacts above and beyond the impacts of listing the species. Therefore, the screening analysis focuses on areas of unoccupied critical habitat. If there are any unoccupied units in the proposed critical habitat designation, the screening analysis assesses whether any additional management or conservation efforts may incur incremental economic impacts. This screening analysis, combined with the information contained in our IEM, constitute what we consider to be our draft economic analysis of the proposed critical habitat designation for the Florida Keys mole skink; our draft economic analysis is summarized in the narrative below.

As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation.

In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the Florida Keys mole skink, first we identified, in the IEM dated March 31, 2022, probable incremental economic impacts associated with the following categories of activities: (1) residential and commercial development; (2) road construction and maintenance; (3) habitat management activities (such as beach renourishment, shoreline armoring, nonnative species control including mechanical or herbicide applications, and prescribed fire); and (4) recreational activities and associated developments (such as campgrounds, trails, and visitor facilities) and management activities (such as beach raking or other cleaning methods to remove wrack and debris). We considered each industry or category individually. Additionally, we considered whether the activities have any Federal involvement. Critical habitat designation generally will not affect activities that do not have any Federal involvement; under the Act, designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies. If we list the species, in areas where the Florida Keys mole skink is present, Federal agencies would be required to consult with the Service under section 7 of the Act on activities they fund, permit, or implement that may affect the species. If, when we list the species, we also finalize this proposed critical habitat designation, our consultations would include an evaluation of measures to avoid the destruction or adverse modification of critical habitat.

In our IEM, we attempted to clarify the distinction between the effects that would result from the species being listed and those attributable to the critical habitat designation (*i.e.,* difference between the jeopardy and adverse modification standards) for the Florida Keys mole skink's critical habitat. Because the designation of critical habitat for Florida Keys mole skink is being proposed concurrently with the listing, it has been our experience that it is more difficult to discern which conservation efforts are attributable to the species being listed and those which will result solely from the designation of critical habitat. However, the following specific circumstances in this case help to inform our evaluation: (1) The essential physical or biological feature identified for critical habitat is the same feature essential for the life requisites of the species, and (2) any actions that would likely adversely affect the essential physical or biological feature of occupied critical habitat are also likely to adversely affect the Florida Keys mole skink. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for this species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this proposed designation of critical habitat.

The proposed critical habitat designation for the Florida Keys mole skink totals approximately 7,068 ac (2,860 ha) in 19 units in Monroe County, Florida (see Proposed Critical Habitat Designation, above). Land ownership across the units includes Federal lands (35 percent), State lands (45 percent), local lands (4 percent), private lands (13 percent), and lands with unknown/undefined ownership (4 percent). Fourteen of the 19 units are currently occupied by the Florida Keys mole skink; the remaining 5 units are within the species' historical range but are not known to be currently occupied. Approximately 84 percent of the proposed critical habitat for the Florida Keys mole skink overlaps with currently designated Federal critical habitat for other species. Further, only about 22 percent (120 ac (48 ha)) of unoccupied proposed critical habitat does not overlap with existing designated Federal critical habitat (IEc 2022, p. 4).

When an action is proposed in an area of designated critical habitat, and the proposed activity has a Federal nexus, the need for section 7 consultation is triggered. Any incremental costs associated with consideration of potential effects to the critical habitat are a result of this consultation process. For all occupied areas, the economic costs of critical habitat designations will most likely be limited to additional administrative efforts to consider adverse modification in section 7 consultations, as the listing of the species is happening concurrently with critical habitat designation, and all occupied units would still need to undergo section 7 consultation due to listing regardless of critical habitat designation. While this additional analysis will require time and resources by both the Federal action agency and the Service, it is believed that, in most circumstances, these costs would predominantly be administrative in nature and would not be significant. In total, a critical habitat designation for the Florida Keys mole skink is unlikely to generate costs or benefits exceeding $100 million in a single year. Because of the relatively small size of the critical habitat designation, the volume of lands that are State, county, or privately owned, the amount of land that is already being managed for conservation, and the significant overlap with other species' designated critical habitat, the numbers of section 7 consultations expected annually are modest (approximately one formal, two informal, and four technical assistance efforts annually across the designation; IEc 2022, p. 25).

Overall, we expect that agency administrative costs for consultation, incurred by the Service and the consulting Federal agency, would be minor (less than $6,000 per consultation effort) and, therefore, would not be significant (IEc 2022, p. 26). The total annual incremental costs of critical habitat designations for the Florida Keys mole skink are anticipated to be approximately $10,200 per year (IEc 2022, p. 27).

Potential private property value effects are possible due to public perception of impacts to private lands. The designation of critical habitat may cause some developers or landowners to perceive that private lands will be subject to use restrictions or litigation from third parties, resulting in costs. However, due to the speculative nature of this perception, costs are not able to be quantified. Regardless, only 13 percent of the proposed critical habitat designation is privately owned land, leading to nominal incremental costs arising from changes in public perception of lands included in the designation.

Incremental costs may occur outside of the section 7 consultation process if the designation of critical habitat triggers additional requirements or project modifications under State or local laws, regulations, or management strategies. These types of costs typically occur if the designation increases awareness of the presence of the species or the need for protection of its habitat. Given that the Florida Keys mole skink is covered by existing State protections, project proponents may already be aware of the presence of the species. For example, the Florida Keys mole skink is listed as threatened under Florida's endangered and threatened species rule. The species is further protected through habitat management and conservation under Florida's Imperiled Species Management Plan, the Florida Keys Wildlife and Environmental Area Management Plan, and Florida State park management plans. Therefore, designating critical habitat is unlikely to provide information to State or local agencies that would result in new regulations or actions (IEc 2022, p. 28).

We are soliciting data and comments from the public on the draft economic analysis discussed above, as well as on all aspects of this proposed rule and our required determinations. During the development of a final designation, we will consider the information presented in the draft economic analysis and any additional information on economic impacts we receive during the public comment period to determine whether any specific areas should be excluded from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 424.19. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of this species.

Consideration of National Security Impacts

Section 4(a)(3)(B)(i) of the Act may not cover all DoD lands or areas that pose potential national security concerns (*e.g.,* a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), then national security or homeland security concerns are not a factor in the process of determining what areas meet the definition of ''critical habitat.'' However, the Service must still consider impacts on national security, including homeland security, on those lands or areas not covered by section 4(a)(3)(B)(i), because section 4(b)(2) requires the Service to consider those impacts whenever it designates critical habitat. Accordingly, if DoD, the Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national security or homeland security concerns, or we have otherwise identified national security or homeland security impacts from designating particular areas as critical habitat, we generally have reason to consider excluding those areas.

However, we cannot automatically exclude requested areas. When DoD, DHS, or another Federal agency requests exclusion from critical habitat on the basis of national security or homeland security impacts, we must conduct an exclusion analysis if the Federal requester provides information, including a reasonably specific justification of an incremental impact on national security that would result from the designation of that specific area as critical habitat. That justification could include demonstration of probable impacts, such as impacts to ongoing border-security patrols and surveillance activities, or a delay in training or facility construction, as a result of compliance with section 7(a)(2) of the Act. If the agency requesting the exclusion does not provide us with a reasonably specific justification, we will contact the agency to recommend that it provide a specific justification or clarification of its concerns relative to the probable incremental impact that could result from the designation. If we conduct an exclusion analysis because the agency provides a reasonably specific justification or because we decide to exercise the discretion to conduct an exclusion analysis, we will defer to the expert judgment of DoD, DHS, or another Federal agency as to: (1) Whether activities on its lands or waters, or its activities on other lands or waters, have national security or homeland security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected in the absence of an exclusion. In that circumstance, in conducting a discretionary section 4(b)(2) exclusion analysis, we will give great weight to national security and homeland security concerns in analyzing the benefits of exclusion.

Under section 4(b)(2) of the Act, we also consider whether a national security or homeland security impact might exist on lands owned or managed by DoD or DHS. In preparing this proposal, we have determined that, other than the land exempted under section 4(a)(3)(B)(i) of the Act based upon the existence of an approved INRMP (see Exemptions, above), the lands within the proposed designation of critical habitat for the Florida Keys mole skink are not owned or managed by DoD or DHS. Therefore, we anticipate no impact on national security or homeland security. However, if through the public comment period we receive information that we determine indicates that there is a potential for impacts on national security or homeland security from designating particular areas as critical habitat, then as part of developing the final designation of critical habitat, we will conduct a discretionary exclusion analysis to determine whether to exclude those areas under authority of section 4(b)(2) and our implementing regulations at 50 CFR 424.19.

Consideration of 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 discussed above To identify other relevant impacts that may affect the exclusion analysis, we consider a number of factors, including whether there are permitted conservation plans covering the species in the area—such as HCPs, safe harbor agreements (SHAs), or candidate conservation agreements with assurances (CCAAs)—or whether there are non-permitted conservation agreements and partnerships that may be impaired by designation of, or exclusion from, critical habitat. In addition, we look at whether Tribal conservation plans or partnerships, Tribal resources, or government-to-government relationships of the United States with Tribal entities may be affected by the designation. We also consider any State, local, social, or other

impacts that might occur because of the designation.

When analyzing other relevant impacts of including a particular area in a designation of critical habitat, we weigh those impacts relative to the conservation value of the particular area. To determine the conservation value of designating a particular area, we consider a number of factors, including, but not limited to, the additional regulatory benefits that the area would receive due to the protection from destruction or adverse modification as a result of actions with a Federal nexus, the educational benefits of mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

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

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

Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act

HCPs for incidental take permits under section 10(a)(1)(B) of the Act provide for partnerships with non-Federal entities to minimize and mitigate impacts to listed species and their habitat. In some cases, HCP permittees agree to do more for the conservation of the species and their habitats on private lands than designation of critical habitat would provide alone. We place great value on the partnerships that are developed during the preparation and implementation of HCPs.

CCAAs and SHAs are voluntary agreements designed to conserve candidate and listed species, respectively, on non-Federal lands. In exchange for actions that contribute to the conservation of species on non-Federal lands, participating property owners are covered by an ''enhancement of survival'' permit under section 10(a)(1)(A) of the Act, which authorizes incidental take of the covered species that may result from implementation of conservation actions, specific land uses, and, in the case of SHAs, the option to return to a baseline condition under the agreements. We also provide enrollees assurances that we will not impose further land-, water-, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the agreements.

When we undertake a discretionary section 4(b)(2) exclusion analysis based on permitted conservation plans (*e.g.,* CCAAs, SHAs, and HCPs), we anticipate consistently excluding such areas if incidental take caused by the activities in those areas is covered by the permit under section 10 of the Act and the CCAA/SHA/HCP meets all of the following three factors (see the 2016 Policy for additional details):

a. The permittee is properly implementing the CCAA/SHA/HCP and is expected to continue to do so for the term of the agreement. A CCAA/SHA/HCP is properly implemented if the permittee is and has been fully implementing the commitments and provisions in the CCAA/SHA/HCP, Implementing Agreement, and permit.

b. The species for which critical habitat is being designated is a covered species in the CCAA/SHA/HCP, or very similar in its habitat requirements to a covered species. The recognition that the Services extend to such an agreement depends on the degree to which the conservation measures undertaken in the CCAA/SHA/HCP would also protect the habitat features of the similar species.

c. The CCAA/SHA/HCP specifically addresses that species' habitat and meets the conservation needs of the species in the planning area.

The proposed critical habitat designation includes areas that are covered by the following permitted plan providing for the conservation of the Florida Keys mole skink: Habitat Conservation Plan for Florida Key Deer and Other Protected Species on Big Pine Key and No Name Key, Monroe County, Florida.

In preparing this proposal, we have determined that lands associated with the HCP for Florida Key Deer and Other Protected Species on Big Pine Key and No Name Key within Big Pine Key (Unit 11) are included within the boundaries of the proposed critical habitat for the Florida Keys mole skink. However, we have determined that the HCP does not include the Florida Keys mole skink as a ''covered species,'' and the Florida Keys mole skink is not mentioned specifically anywhere in the HCP document. Because it is not a ''covered species,'' the HCP will not trigger surveys or conservation measures for this species. The HCP expires in 2023, though the county is applying for an extension to 2026, which may provide an opportunity to add the Florida Keys mole skink.

At this time, we are not considering the exclusion of any areas within the proposed critical habitat for the Florida Keys mole skink that are covered by permitted plans. However, we are requesting information supporting a benefit of excluding any areas from the HCP for Florida Key Deer and Other Protected Species on Big Pine Key and No Name Key. Based on our evaluation of the information we receive, we may determine that we have reason to exclude one or more areas from the final designation.

Non-Permitted Conservation Plans, Agreements, or Partnerships

Shown below is a non-exhaustive list of factors that we consider in evaluating how non-permitted plans or agreements affect the benefits of inclusion or exclusion. These are not required elements of plans or agreements. Rather, they are some of the factors we may consider, and not all of these factors apply to every plan or agreement.

(i) The degree to which the record of the plan, or information provided by proponents of an exclusion, supports a conclusion that a critical habitat designation would impair the realization of the benefits expected from the plan, agreement, or partnership.

(ii) The extent of public participation in the development of the conservation plan.

(iii) The degree to which agency review and required determinations (*e.g.,* State regulatory requirements) have been completed, as necessary and appropriate.

(iv) Whether National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) reviews or similar reviews occurred, and the nature of any such reviews.

(v) The demonstrated implementation and success of the chosen mechanism.

(vi) The degree to which the plan or agreement provides for the conservation of the essential physical or biological feature for the species.

(vii) Whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan or agreement will be implemented.

(viii) Whether the plan or agreement contains a monitoring program and adaptive management to ensure that the conservation measures are effective and can be modified in the future in response to new information.

The proposed critical habitat designation includes areas that are covered by the following non-permitted plans providing for the conservation of the Florida Keys mole skink: Florida Keys Wildlife and Environmental Area Management Plan and several Florida Keys State Park Unit Management Plans.

In preparing this proposal, we have determined that lands associated with the Florida Keys Wildlife and Environmental Area (Units 1 and 2), Dagny Johnson Key Largo Hammock Botanical State Park (Unit 1), John Pennekamp Coral Reef State Park (Unit 1), Lignumvitae Key Botanical State Park (Units 3 and 5), Indian Key Historic State Park (Unit 4), Long Key State Park (Unit 6), Bahia Honda State Park (Unit 9), and Fort Zachary Taylor State Park (Unit 16) are included within the boundaries of the proposed critical habitat for the Florida Keys mole skink. While the Florida Keys mole skink is mentioned within four of these plans and monitoring is included as an objective in three (two of which are only for opportunistic monitoring), specific management objectives for the species are not discussed.

At this time, we are not considering the exclusion of any areas within the proposed critical habitat for the Florida Keys mole skink that are covered by non-permitted plans because these areas are managed for conservation. However, we are requesting information supporting a benefit of excluding any areas covered by the Florida Keys Wildlife and Environmental Area Management Plan or the Florida Keys State Park Unit Management Plans. Based on our evaluation of the information we receive, we may determine that we have reason to exclude one or more areas from the final designation.

Tribal Lands

In preparing this proposal, we have determined that there are no Tribal lands or resources that are included within the boundaries of the proposed critical habitat for the Florida Keys mole skink.

Summary of Exclusions Considered Under Section 4(b)(2) of the Act

At this time we are not considering any exclusions from the proposed designation based on economic impacts, national security impacts, or other relevant impacts—such as partnerships, management, or protection afforded by cooperative management efforts—under section 4(b)(2) of the Act. Some areas within the proposed designation are included in an HCP or State land management plans; however, the Florida Keys mole skink is not a covered species within those plans, nor is the species discussed in the plans. In this proposed rule, we are seeking information from the public supporting a benefit of excluding any areas that would be used in an exclusion analysis that may result in the exclusion of areas from the final critical habitat designation. (Please see **DATES** and **ADDRESSES** for instructions on how to submit comments.)

Required Determinations

Clarity of the Rule

We are required by E.O.s 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 **ADDRESSES**. 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.

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA 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. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this proposed rule in a manner consistent with these requirements.

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

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

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and Service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine whether potential economic impacts to these small entities are significant, we

considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

Under the RFA, as amended, and as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself; in other words, the RFA does not require agencies to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies would be directly regulated if we adopt the proposed critical habitat designation. The RFA does not require evaluation of the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities would be directly regulated by this rulemaking, the Service certifies that, if made final as proposed, the proposed critical habitat designation will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether the proposed designation would result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that, if made final, the proposed critical habitat designation would 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. In our economic analysis, we did not find that this proposed critical habitat designation would significantly affect energy supplies, distribution, or use, as there are no energy facilities within the boundaries of the proposed critical habitat units for the Florida Keys mole skink. Therefore, this action is not a significant energy action, and no statement of energy effects is required.

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

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

(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 do not believe that this rule would significantly or uniquely affect small governments because it will not produce a Federal mandate of $100 million or greater in any year, that is, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act. Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the Florida Keys mole skink in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat 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. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed for the proposed designation of critical habitat for the Florida Keys mole skink, and it concludes that, if adopted, this designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 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. 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 proposed rule does not have substantial direct effects either on the States, or on the relationship between the Federal government and the States, or on the distribution of powers and responsibilities among the various levels of government. The proposed designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for 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 State and local governments in long-range planning because they 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) of the Act 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 E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule would not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this proposed rule identifies the physical or biological feature essential to the conservation of the species. The proposed areas of critical habitat are presented on maps, and the proposed 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 information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) is not required. We may not conduct or sponsor and you are 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 (42 U.S.C. 4321 *et seq.*) in connection with regulations adopted pursuant to section 4(a) of 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)).

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), E.O. 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 have determined that no Tribal lands fall within the boundaries of the proposed critical habitat for the Florida Keys mole skink, so no Tribal lands would be affected by the proposed designation.

References Cited

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

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Florida Ecological Services Field Office.

Signing Authority

Martha Williams, Director of the U.S. Fish and Wildlife Service, approved this action on August 30, 2022, for publication. On September 15, 2022, Martha Williams authorized the undersigned to sign the document electronically and submit it to the Office of the Federal Register for publication as an official document of the U.S. Fish and Wildlife Service.

List of Subjects in 50 CFR Part 17

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

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; and 4201–4245, unless otherwise noted.

■ 2. Amend § 17.11 in paragraph (h) by adding an entry for ''Skink, Florida Keys mole'' to the List of Endangered and Threatened Wildlife in alphabetical order under REPTILES to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
*	*	*	*	*
REPTILES				
*	*	*	*	*
Skink, Florida Keys mole	*Plestiodon egregius egregius.*	Wherever found	T	[**FEDERAL REGISTER** Citation when Published as a Final Rule]; 50 CFR 17.42(q);[4d] 50 CFR 17.95(c).[CH]
*	*	*	*	*

■ 3. Amend § 17.42 by adding paragraphs (j) through (q) to read as follows:

§ 17.42 Special rules—reptiles.

* * * * *

(j) [Reserved]

(k) [Reserved]

(l) [Reserved]

(m) [Reserved]

(n) [Reserved]

(o) [Reserved]

(p) [Reserved]

(q) Florida Keys mole skink (*Plestiodon egregius egregius*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to Florida Keys mole skink. Except as provided under paragraph (q)(2) of this section and §§ 17.4 and 17.5, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be committed, any of the following acts in regard to this species:

(i) Import or export, as set forth at § 17.21(b) for endangered wildlife.

(ii) Take, as set forth at § 17.21(c)(1) for endangered wildlife.

(iii) Possession and other acts with unlawfully taken specimens, as set forth at § 17.21(d)(1) for endangered wildlife.

(iv) Interstate or foreign commerce in the course of a commercial activity, as set forth at § 17.21(e) for endangered wildlife.

(v) Sale or offer for sale, as set forth at § 17.21(f) for endangered wildlife.

(2) *Exceptions from prohibitions.* In regard to this species, you may:

(i) Conduct activities as authorized by a permit under § 17.32.

(ii) Take, as set forth at § 17.21(c)(2) through (c)(4) for endangered wildlife.

(iii) Take as set forth at § 17.31(b).

(iv) Possess and engage in other acts with unlawfully taken wildlife, as set forth at § 17.21(d)(2) for endangered wildlife.

(v) Take incidental to an otherwise lawful activity caused by:

(A) Mechanical treatment activities conducted within Florida Keys mole skink habitat that are carried out in accordance with a habitat management plan developed by a Federal, State, or county entity in coordination with the Service, as long as the treatments are used to maintain, restore, or enhance a natural diversity and abundance of habitats for native plants and wildlife.

(B) Prescribed fire activities conducted within Florida Keys mole skink habitat that are carried out in accordance with a fire management plan developed by a Federal, State, or county entity in coordination with the Service, as long as the treatments are used to maintain, restore, or enhance a natural diversity and abundance of habitats for native plants and wildlife. Prescribed fire activities include maintenance and creation of fire breaks, fire line installation, mechanical treatments to reduce fuel loads, and any other pre-fire preparations needed.

(C) Nonnative plant or animal species eradication activities that are carried out in accordance with a habitat management plan developed by a Federal, State, or county entity in coordination with the Service, as long as the treatments are used to maintain, restore, or enhance a natural diversity and abundance of habitats for native plants and wildlife.

■ 4. Amend § 17.95 in paragraph (c) by adding an entry for ''Florida Keys Mole Skink (*Plestiodon egregius egregius*)'' after the entry for ''Loggerhead Sea Turtle, Northwest Atlantic Ocean DPS (*Caretta caretta*)'' to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(c) *Reptiles.*

* * * * *

Florida Keys Mole Skink (*Plestiodon egregius egregius*)

(1) Critical habitat units are depicted for Monroe County, Florida, on the maps in this entry.

(2) Within these areas, the physical or biological feature essential to the conservation of the Florida Keys mole skink consists of natural habitats (including, but not limited to beaches, dunes, coastal berms, rockland hammocks, and pine rocklands) along the coast or on the interior of the Florida Keys that contain:

(i) Suitable soils (dry, loose, sandy, permeable, or friable soils) for movement and nesting; and

(ii) Sufficient, appropriate ground cover (including, but not limited to tidal wrack deposited above the mean high-water line, leaf litter, and vegetative debris) for protection from predators and temperature extremes, sources of food, and areas for reproduction.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [EFFECTIVE DATE OF RULE].

(4) Data layers defining map units were created 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 Albers Conical Equal Area (Florida Geographic Data Library), NAD 1983 HARN. 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 *https://www.fws.gov/office/florida-ecological-services/library,* at *https://www.regulations.gov* at Docket No. FWS–R4–ES–2022–0104, 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:

Figure 1 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (5)

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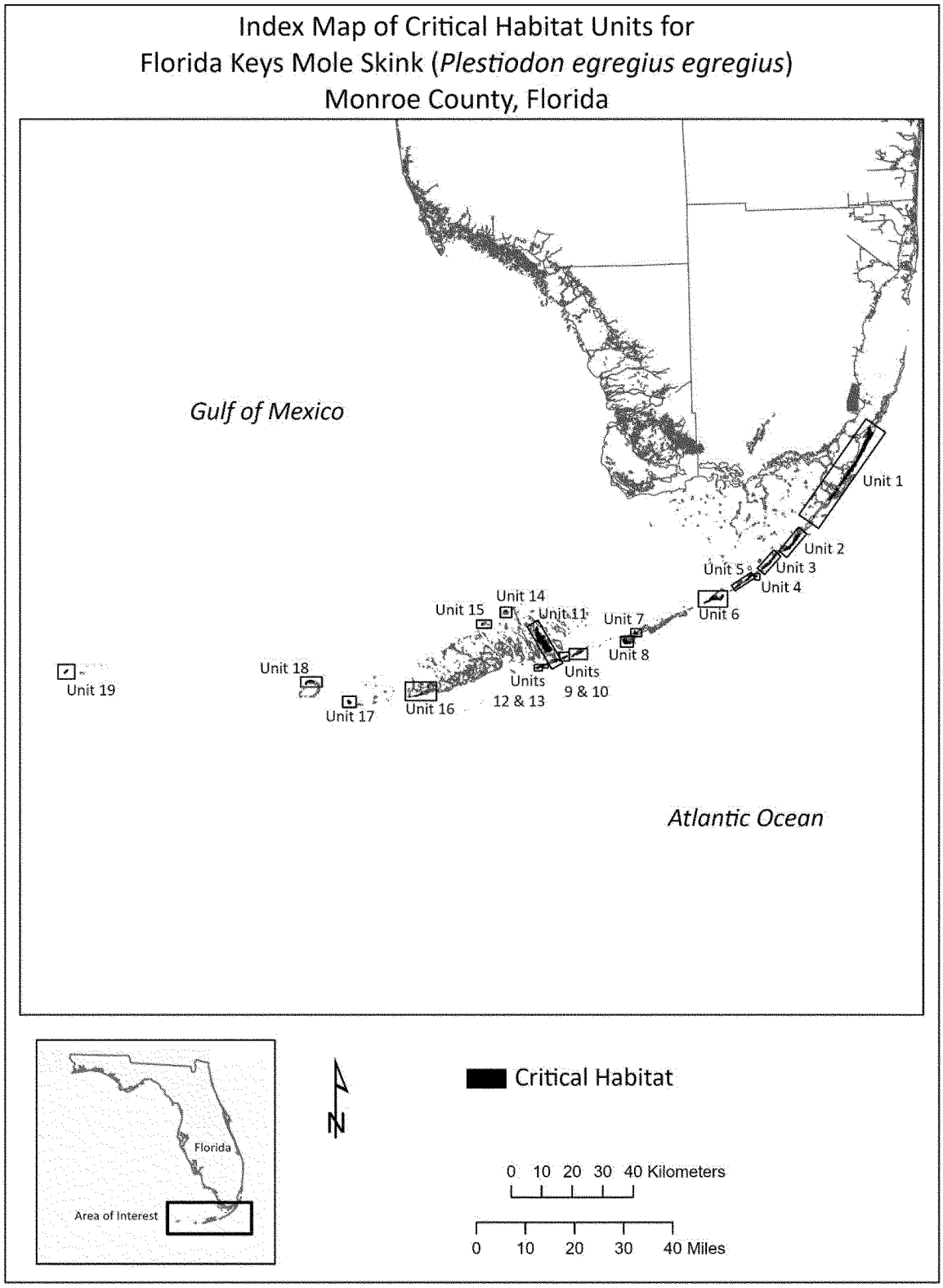


(6) Unit 1: Key Largo, Monroe County, Florida.

(i) Unit 1 consists of 3,157 ac (1,278 ha) in Monroe County, Florida, in the upper Florida Keys. This unit includes Federal lands within Crocodile Lake National Wildlife Refuge (608 ac (246 ha)), State lands within Dagny Johnson Botanical State Park, John Pennekamp Coral Reef State Park, and the Florida Keys Wildlife and Environmental Area (2,176 ac (881 ha)), local lands (85 ac (34 ha)), and property in private or unknown/undefined ownership (288 ac (117 ha)). The unit originates on the north end of Key Largo, just south of the Ocean Reef Club, and continues contiguously south to U.S. Route 1, after which it continues intermittently to just north of Ocean Drive. There is one disjunct portion of the unit,

approximately 4.5 miles south of Ocean Drive, between Dove Road and Snapper Lane.

(ii) Maps of Unit 1 follow:

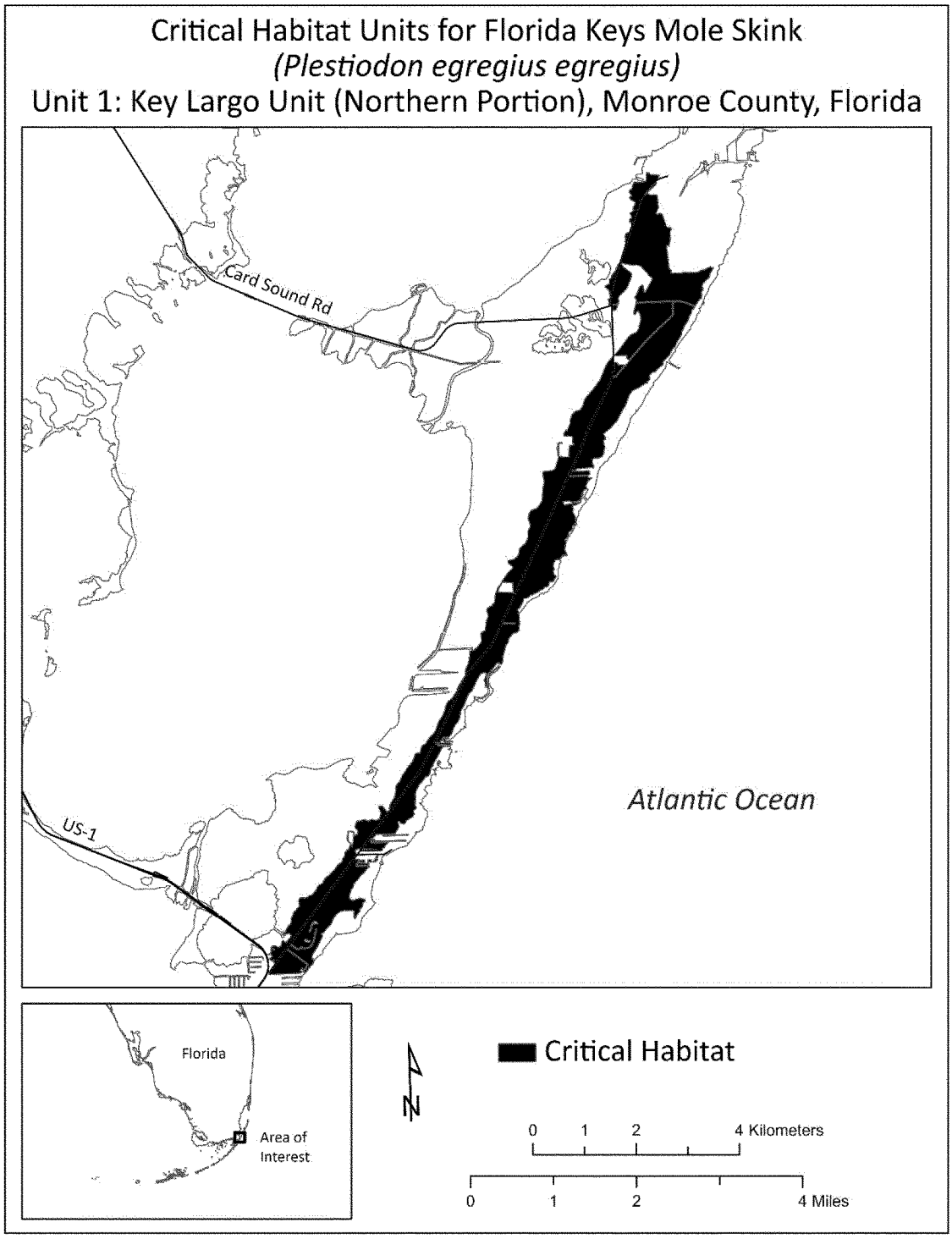
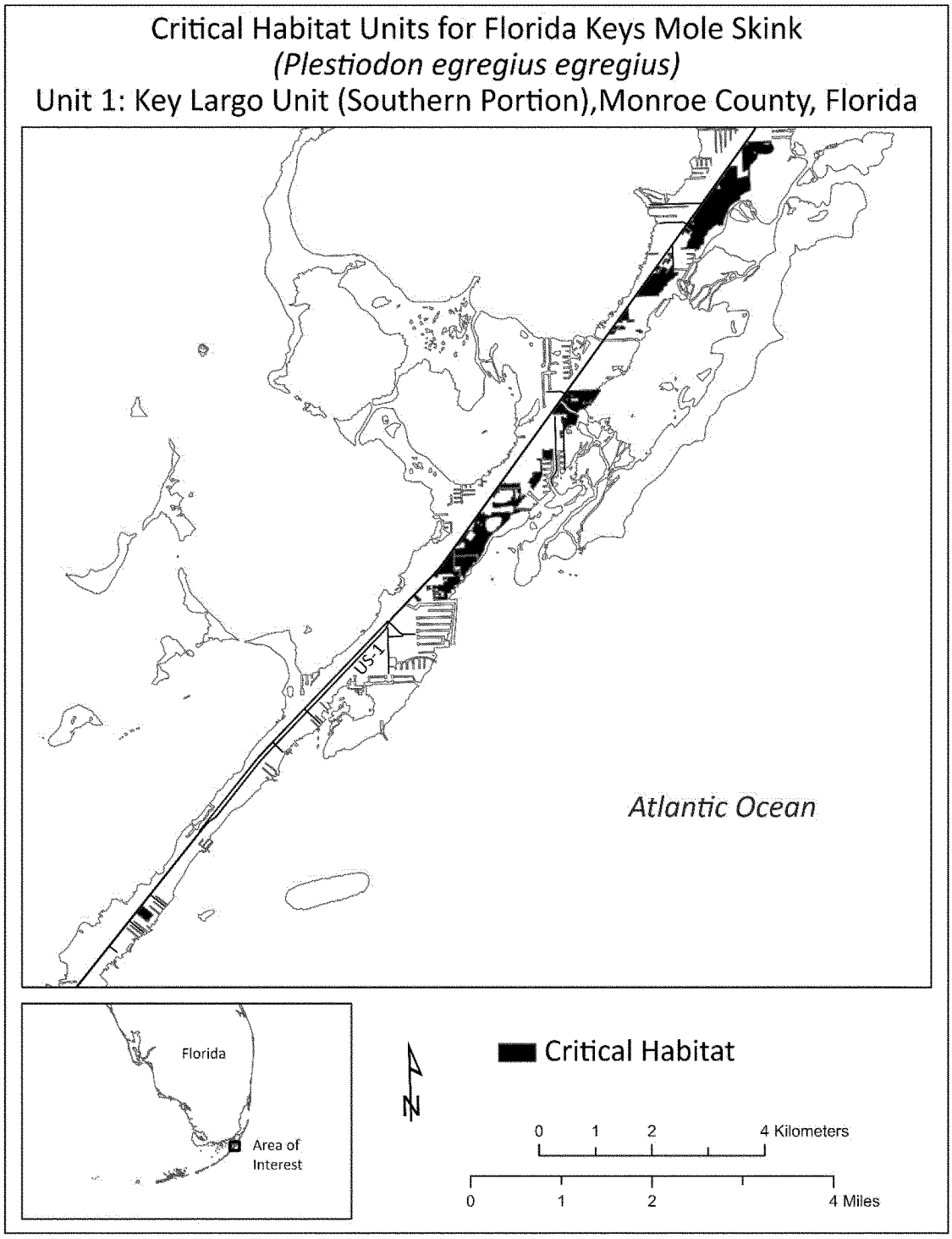


Figure 2 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (6)(ii)

Figure 3 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (6)(ii)

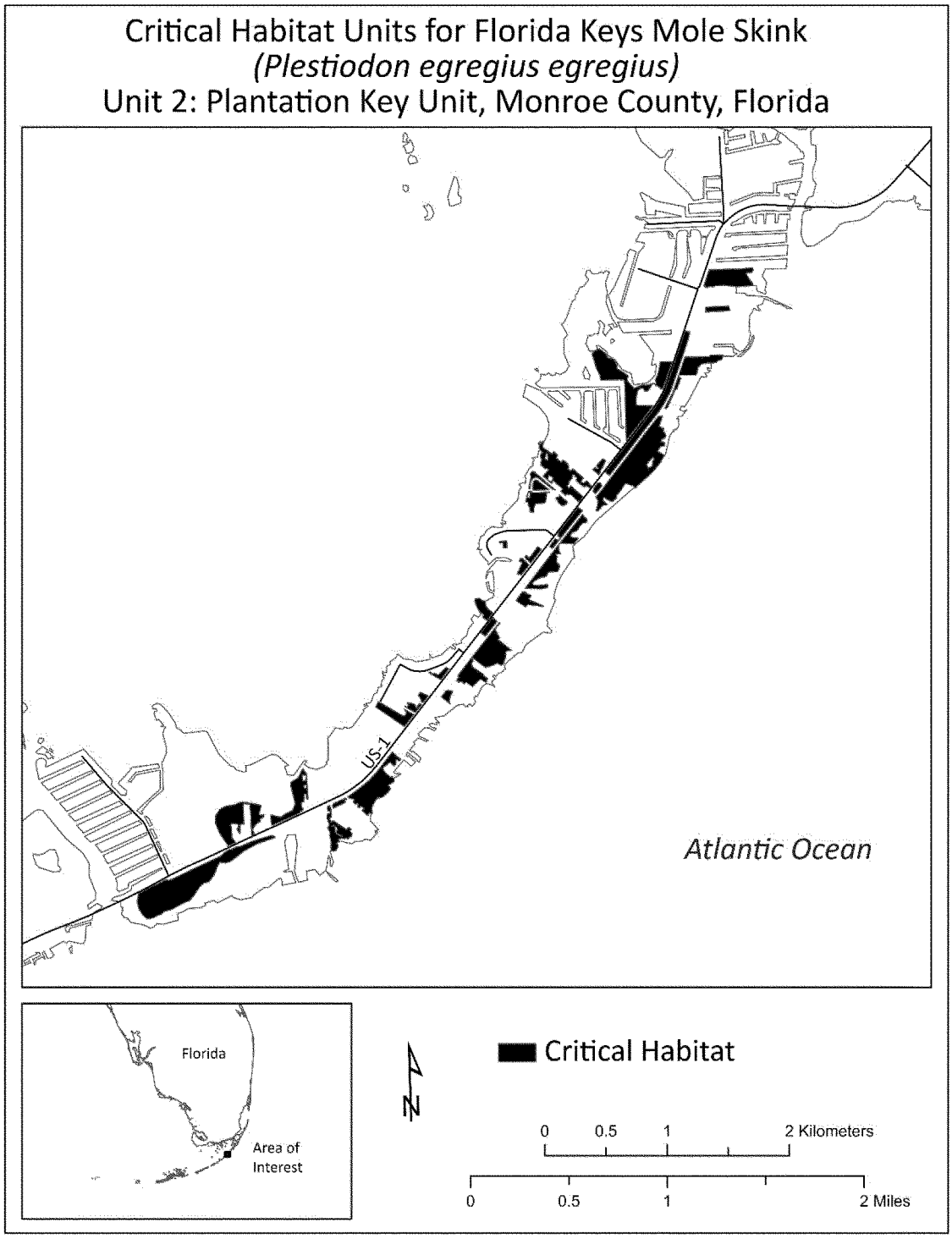


(7) Unit 2: Plantation Key, Monroe County, Florida.

(i) Unit 2 consists of 275 ac (111 ha) in Monroe County, Florida, in the upper Florida Keys. This unit includes State lands within the Florida Keys Wildlife and Environmental Area (63 ac (26 ha)), local lands (29 ac (12 ha)), and property in private or unknown/undefined ownership (183 ac (74 ha)). The unit originates on the north end of Plantation Key just south of Ocean Drive and continues intermittently until the south end of the island.

(ii) Map of Unit 2 follows:

Figure 4 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (7)(ii)

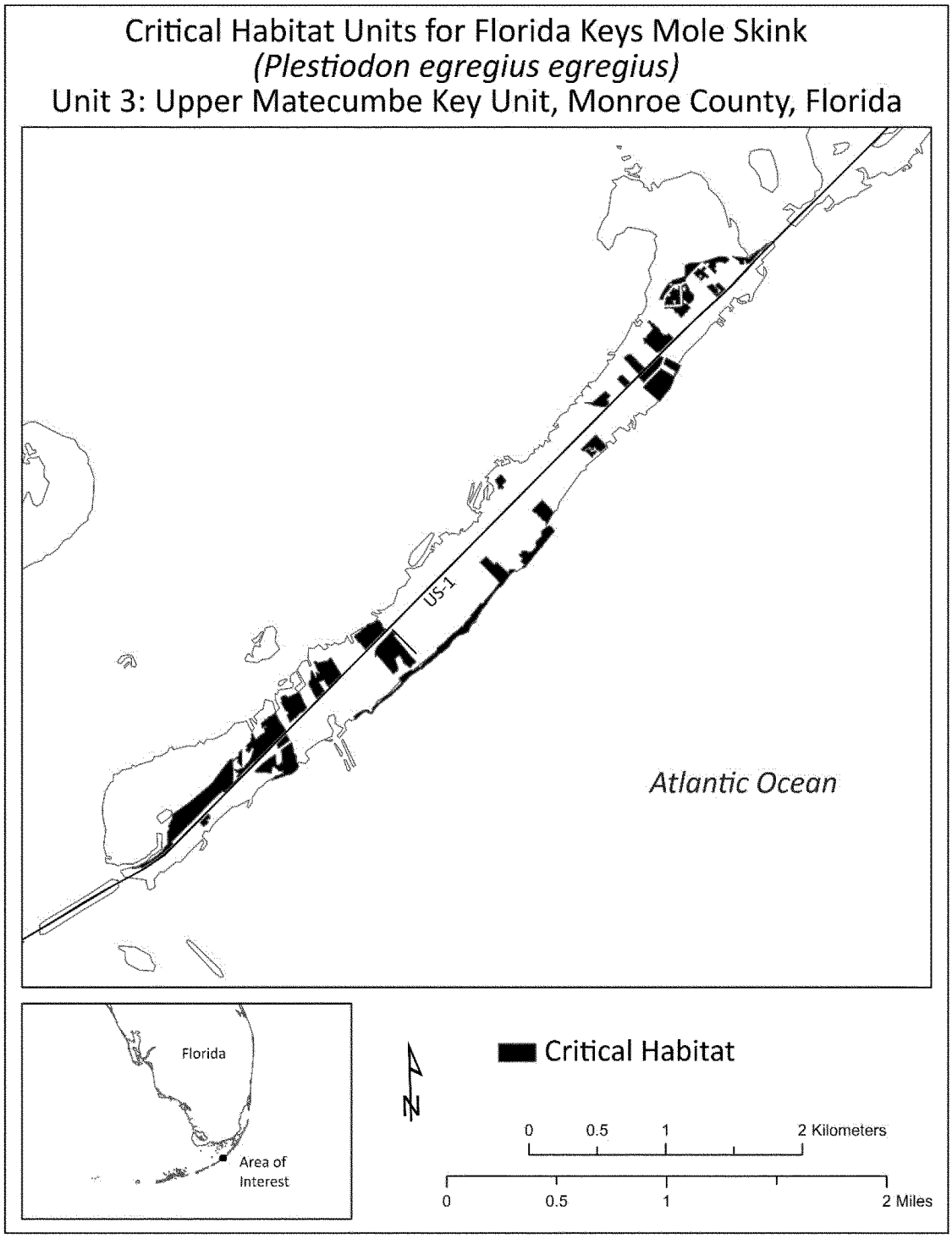


(8) Unit 3: Upper Matecumbe Key, Monroe County, Florida.

(i) Unit 3 consists of 140 ac (57 ha) in Monroe County, Florida, in the upper Florida Keys. This unit includes State lands within the Lignumvitae Key Botanical and Indian Key Historic State Parks (24 ac (10 ha)), local lands (18 ac (7 ha)), and property in private or unknown/undefined ownership (97 ac (39 ha)). The unit originates on the north end of Upper Matecumbe Key and continues intermittently until the south end of the island.

(ii) Map of Unit 3 follows:

Figure 5 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (8)(ii)



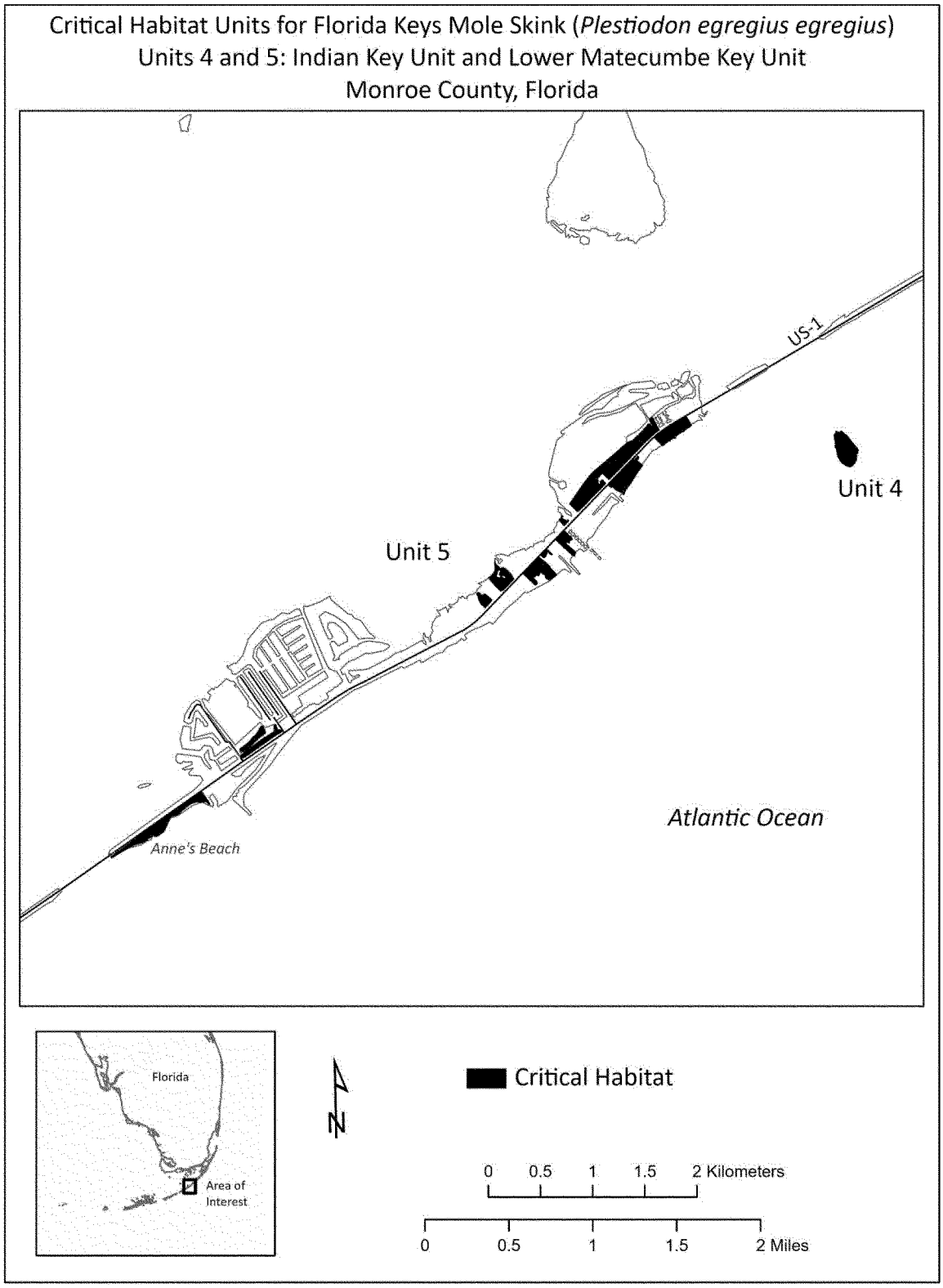
(9) *Unit 4:* Indian Key, Monroe County, Florida; and Unit 5: Lower Matecumbe Key, Monroe County, Florida.

(i) Unit 4 consists of 12 ac (5 ha) in Monroe County, Florida, in the upper Florida Keys. The unit encompasses the entire island of Indian Key, which is owned by the State as part of the Indian Key Historic State Park.

(ii) Unit 5 consists of 95 ac (38 ha) in Monroe County, Florida, in the upper Florida Keys. This unit includes State lands that are part of Lignumvitae Key Botanical State Park (34 ac (14 ha)), local lands (6 ac (3 ha)), and property in private or unknown/undefined ownership (54 ac (22 ha)). The unit originates on the north end of Lower Matecumbe Key and continues intermittently until the south end of the island.

(iii) Map of Unit 4 and Unit 5 follows:

Figure 6 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (9)(iii)

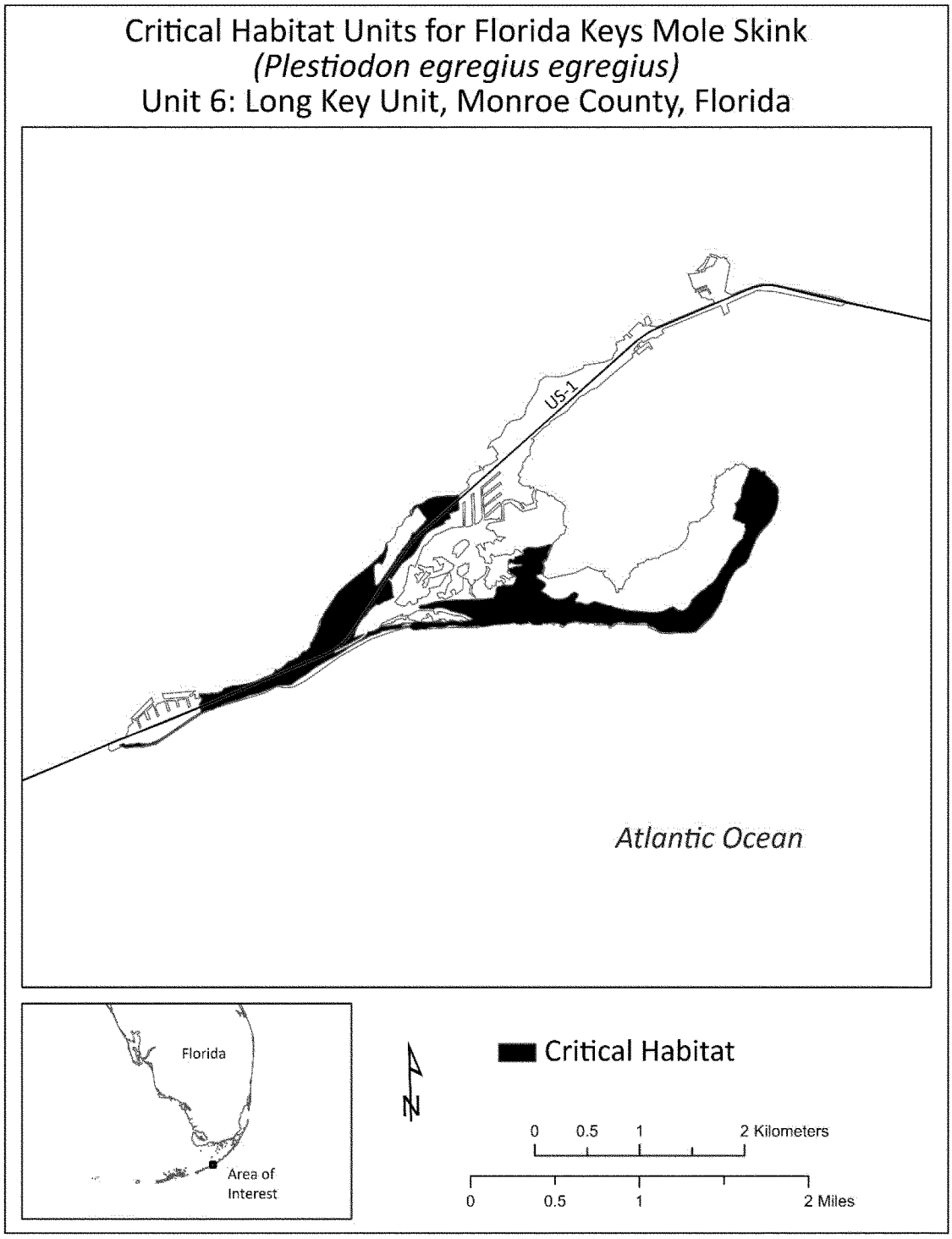


(10) *Unit 6:* Long Key, Monroe County, Florida.

(i) Unit 6 consists of 405 ac (164 ha) in Monroe County, Florida, in the middle Florida Keys. This unit includes State lands that are part of Long Key State Park (350 ac (142 ha)), local lands (20 ac (8 ha)), and property in private or unknown/undefined ownership (34 ac (14 ha)). The unit originates on the north end of the southern hook of Long Key and continues until the south end of the island, with a portion extending north along U.S. Route 1 to Long Key Lake Drive.

(ii) Map of Unit 6 follows:

Figure 7 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (10)(ii)



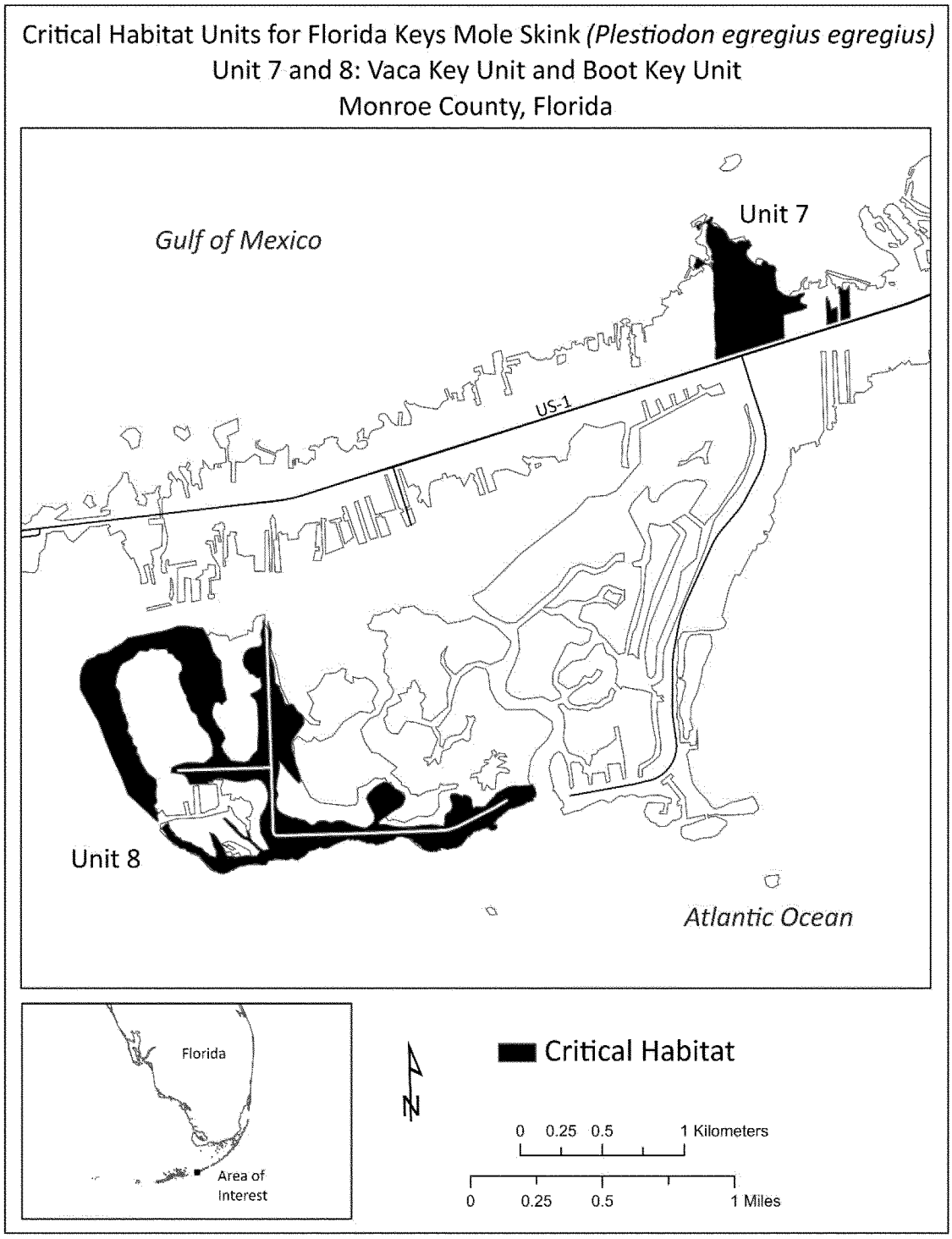
(11) *Unit 7:* Vaca Key, Monroe County, Florida; and Unit 8: Boot Key, Monroe County, Florida.

(i) Unit 7 consists of 72 ac (29 ha) in Monroe County, Florida, in the middle Florida Keys. This unit includes local lands (1 ac (<1 ha)) and property in private or unknown/undefined ownership (71 ac (29 ha)). The unit includes most of the Crane Point Hammock Preserve, which is located on the north side of U.S. Route 1, and two smaller areas to the east.

(ii) Unit 8 consists of 221 ac (90 ha) in Monroe County, Florida, in the middle Florida Keys. This unit includes State lands (14 ac (6 ha)) and property in private or unknown/undefined ownership (207 ac (84 ha)). The unit originates on the east end of the southern shore of Boot Key and continues up the middle and along the northwestern shoreline of the island.

(iii) Map of Unit 7 and Unit 8 follows:

Figure 8 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (11)(iii)

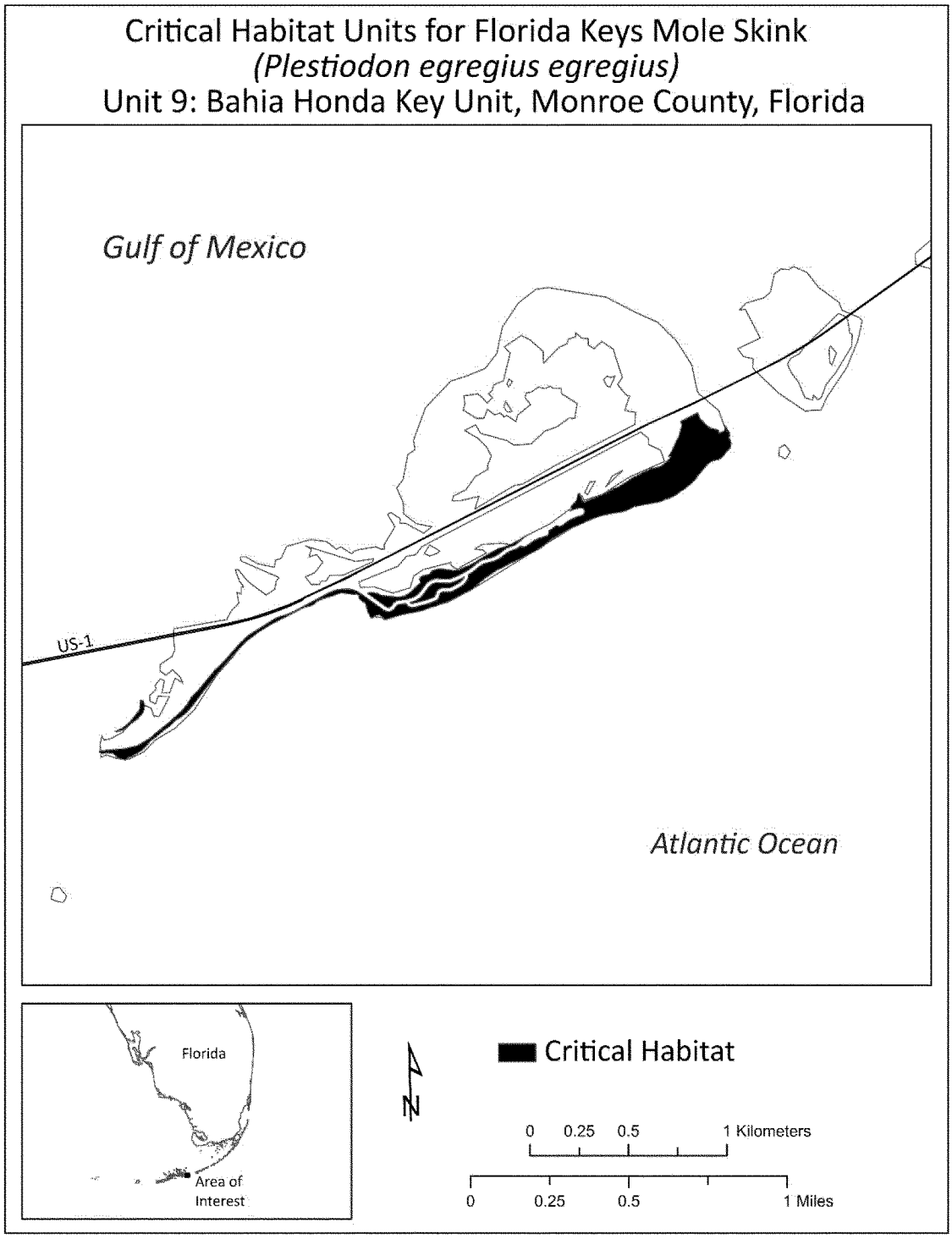


(12) *Unit 9:* Bahia Honda Key, Monroe County, Florida.

(i) Unit 9 consists of 65 ac (26 ha) in Monroe County, Florida, in the lower Florida Keys. This unit is almost entirely within Bahia Honda State Park (57 ac (23 ha)), with approximately 8 ac (3 ha) of unknown or undefined ownership. The unit originates on the east end of the southern shore of Bahia Honda Key and continues along the southern shore until the west end of the island, with a small area on the northwestern shore of the island.

(ii) Map of Unit 9 follows:

Figure 9 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (12)(ii)

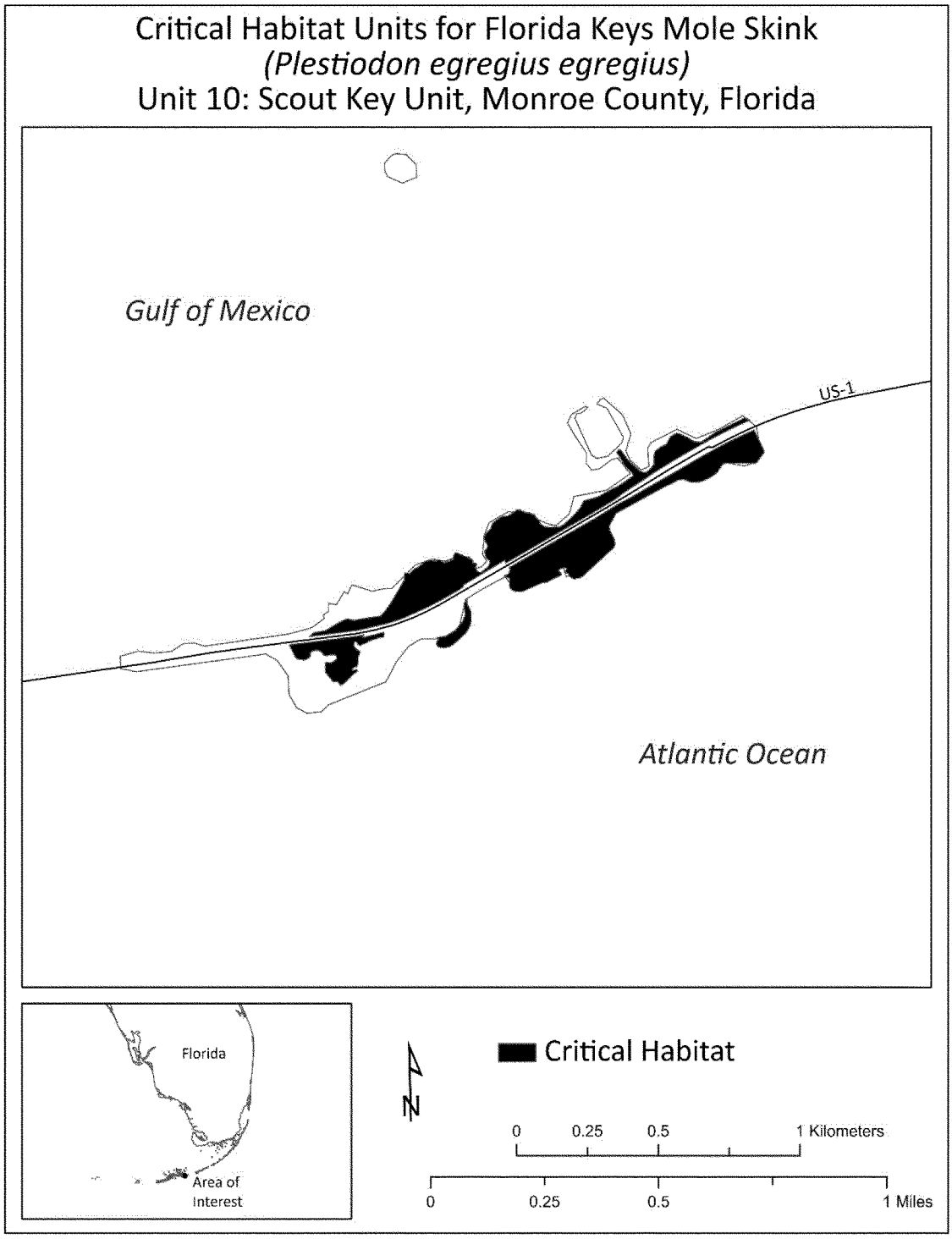


(13) *Unit 10:* Scout Key, Monroe County, Florida.

(i) Unit 10 consists of 53 ac (21 ha) in Monroe County, Florida, in the lower Florida Keys. This unit includes State lands (9 ac (4 ha)), local lands (33 ac (13 ha)), and property in private or unknown/undefined ownership (11 ac (5 ha)). The unit originates on the east end of Scout Key (also called West Summerland Key) and continues to the west end of the island just east of the entrance to the Boy Scout Camp, with a small area on the southern shore of the island.

(ii) Map of Unit 10 follows:

Figure 10 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (13)(ii)

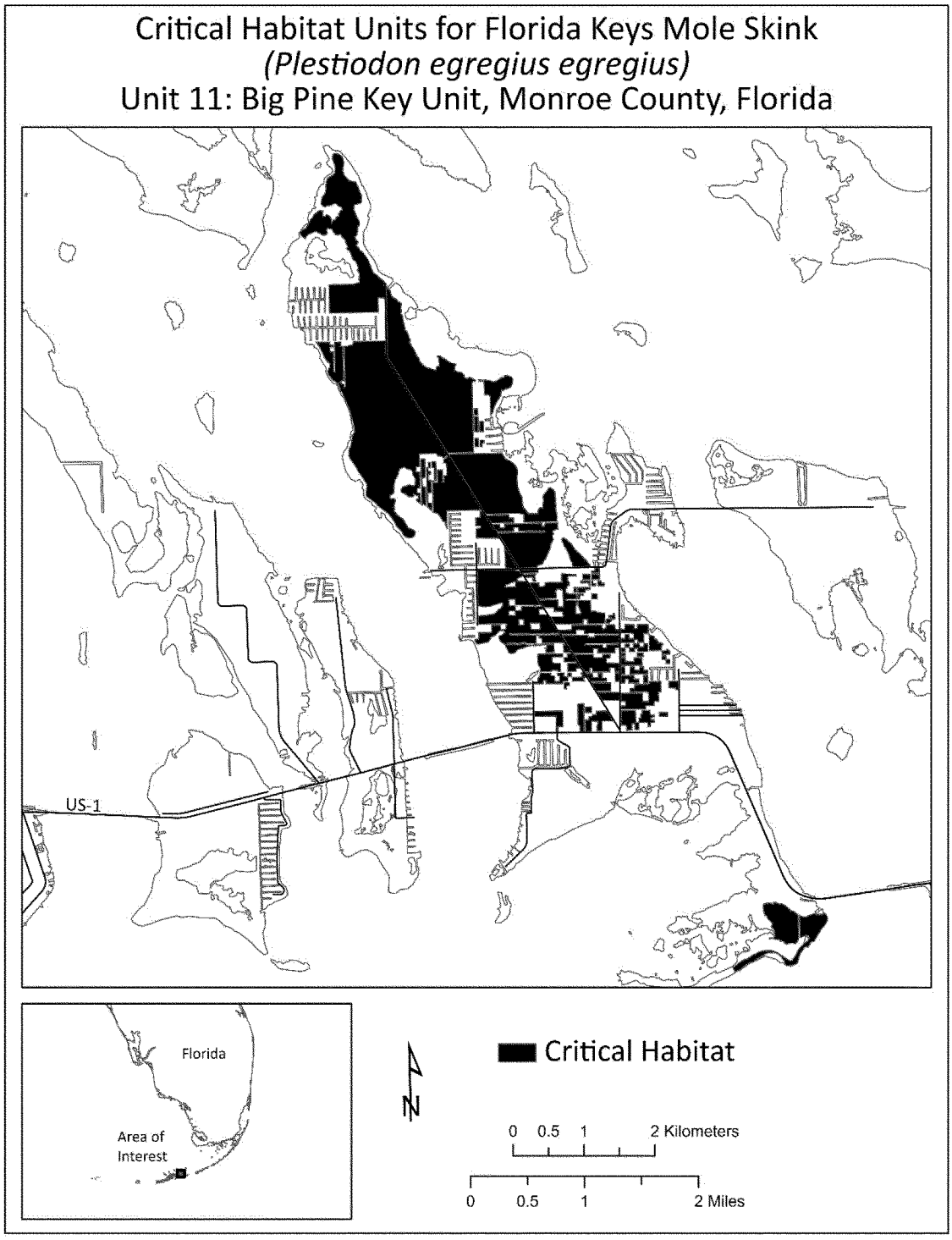


(14) *Unit 11:* Big Pine Key, Monroe County, Florida.

(i) Unit 11 consists of 2,159 ac (874 ha) in Monroe County, Florida, in the lower Florida Keys. This unit includes Federal lands within the National Key Deer Refuge (1,547 ac (626 ha)), State lands (412 ac (167 ha)), local lands (80 ac (32 ha)), and property in private or unknown/undefined ownership (120 ac (49 ha)). The northern part of the unit extends from near the northern tip of Big Pine Key south to U.S. Route 1, and the southern part of the unit originates on the eastern end of Long Beach, just south of the Big Pine Key Resort, and extend west to where the low-density residential developments begin.

(ii) Map of Unit 11 follows:

Figure 11 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (14)(ii)



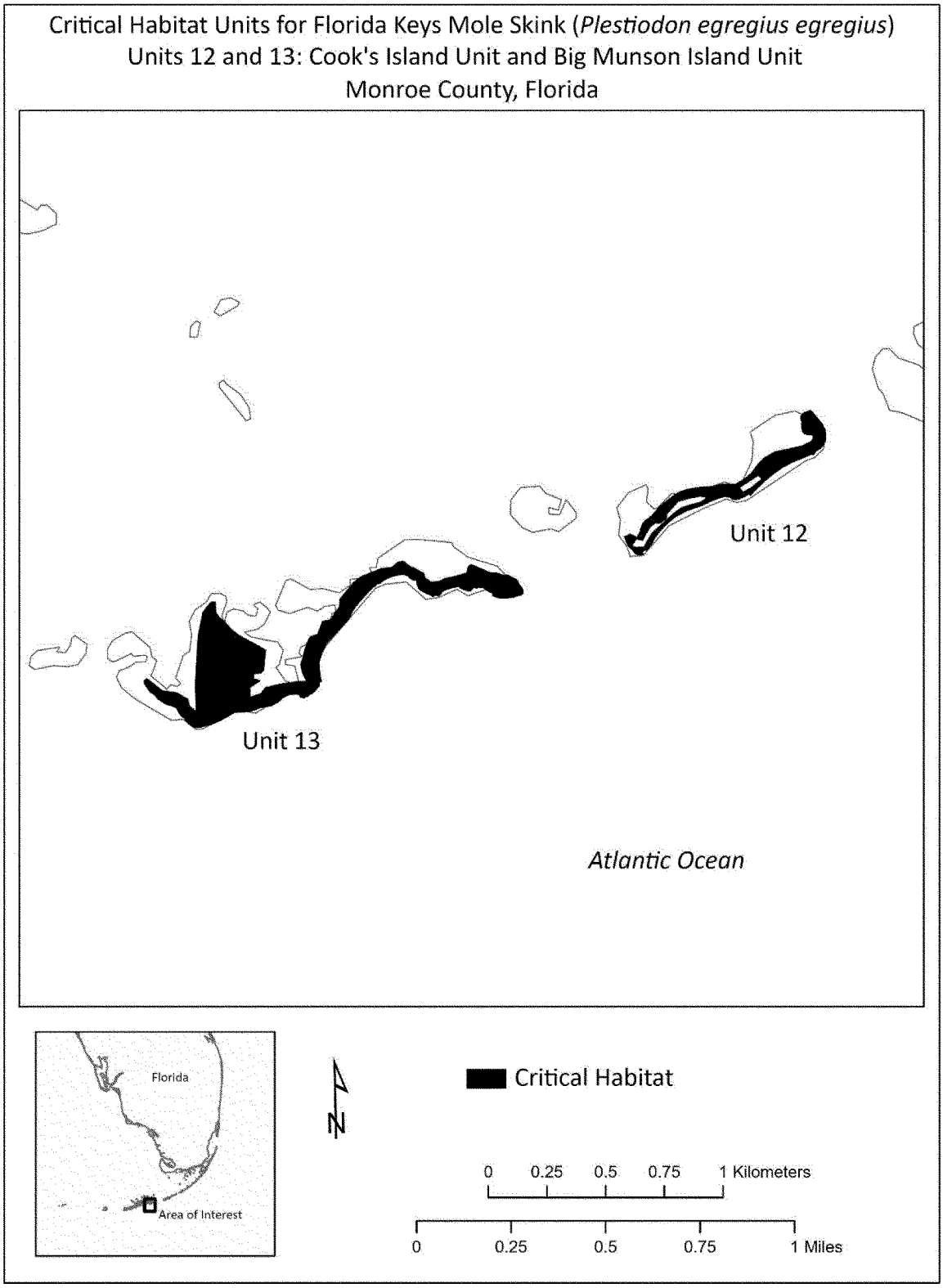
(15) *Unit 12:* Cook's Island, Monroe County, Florida; and Unit 13: Big Munson Island, Monroe County, Florida.

(i) Unit 12 consists of 15 ac (6 ha) in Monroe County, Florida, in the lower Florida Keys. This unit is almost entirely in private ownership (13 ac (5 ha)), with approximately 2 ac (1 ha) of unknown or undefined ownership. The unit stretches along the entire southern shore of Cook's Island.

(ii) Unit 13 consists of 51 ac (21 ha) in Monroe County, Florida, in the lower Florida Keys. This unit is almost entirely in private ownership by the Boy Scouts of America (50 ac (20 ha)), with approximately 1 ac (1 ha) of unknown or undefined ownership. The unit stretches along the entire southern shore of Big Munson Island with a portion extending to the north on the western end.

(iii) Map of Unit 12 and Unit 13 follows:

Figure 12 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (15)(iii)

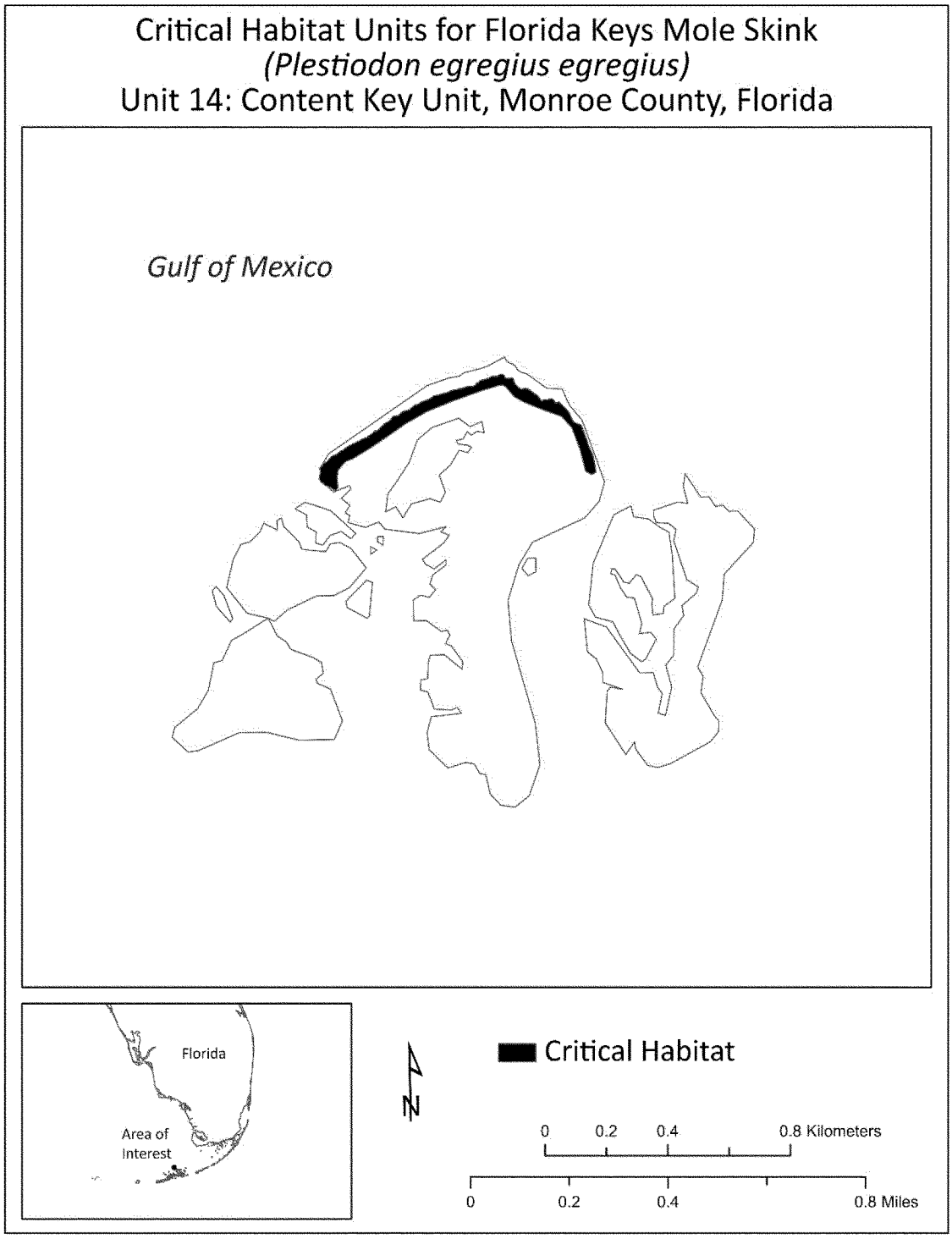


(16) *Unit 14:* Content Key, Monroe County, Florida.

(i) Unit 14 consists of 10 ac (4 ha) in Monroe County, Florida, in the lower Florida Keys. This unit includes Federal lands within the National Key Deer Refuge and the Great White Heron National Wildlife Refuge (6 ac (3 ha)), State lands (1 ac (<1 ha)), and property with unknown or undefined ownership (3 ac (1 ha)). The unit stretches along most of the northern shore of the middle island of Content Keys.

(ii) Map of Unit 14 follows:

Figure 13 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (16)(ii)

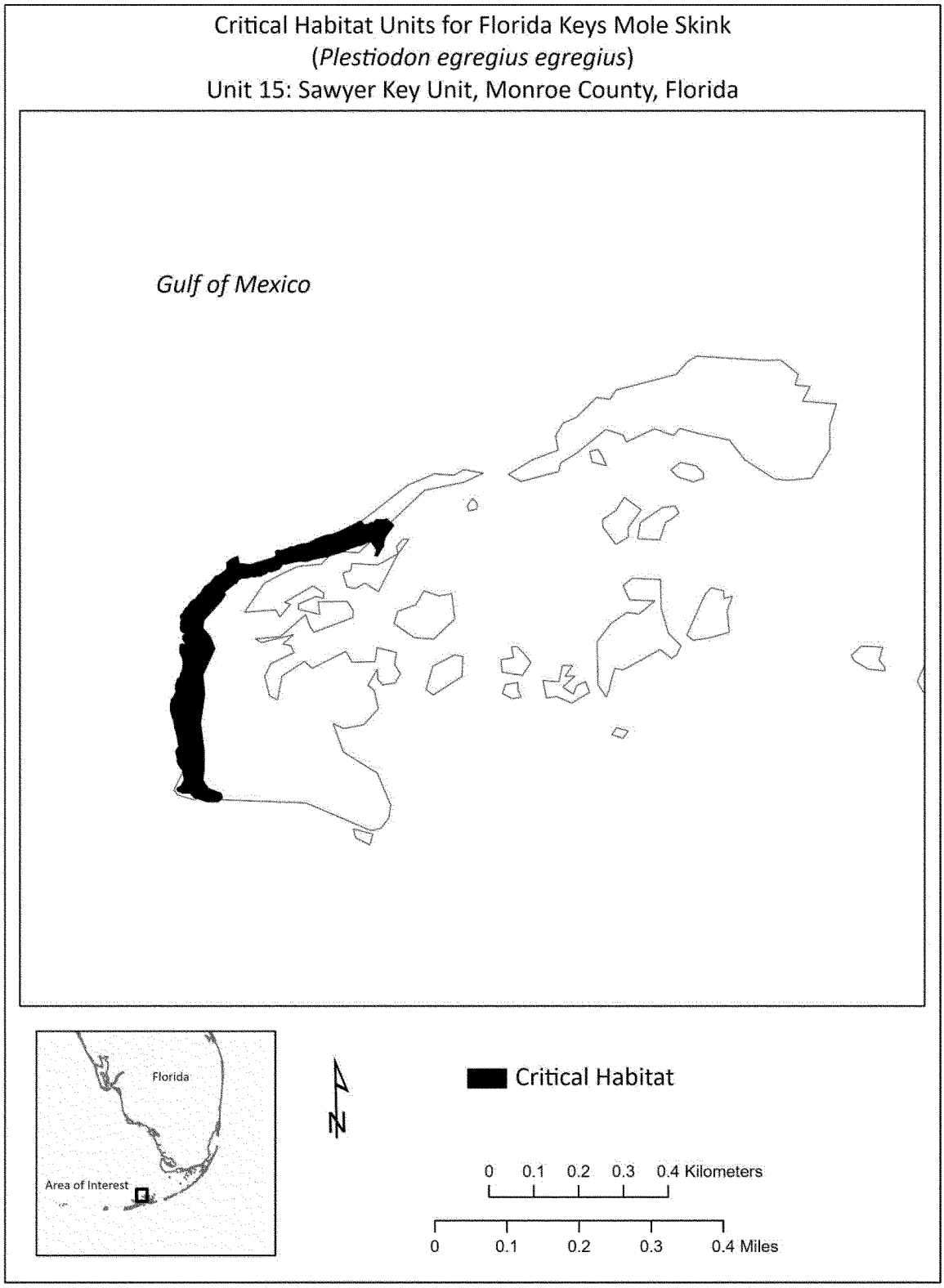


(17) *Unit 15:* Sawyer Key, Monroe County, Florida.

(i) Unit 15 consists of 11 ac (4 ha) in Monroe County, Florida, in the lower Florida Keys. This unit is almost entirely in Federal ownership as part of the Great White Heron National Wildlife Refuge (10 ac (4 ha)), with approximately 1 ac (<1 ha) of unknown or undefined ownership. The unit stretches along the entire western and northern shore of the westernmost island of Sawyer Key.

(ii) Map of Unit 15 follows:

Figure 14 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (17)(ii)

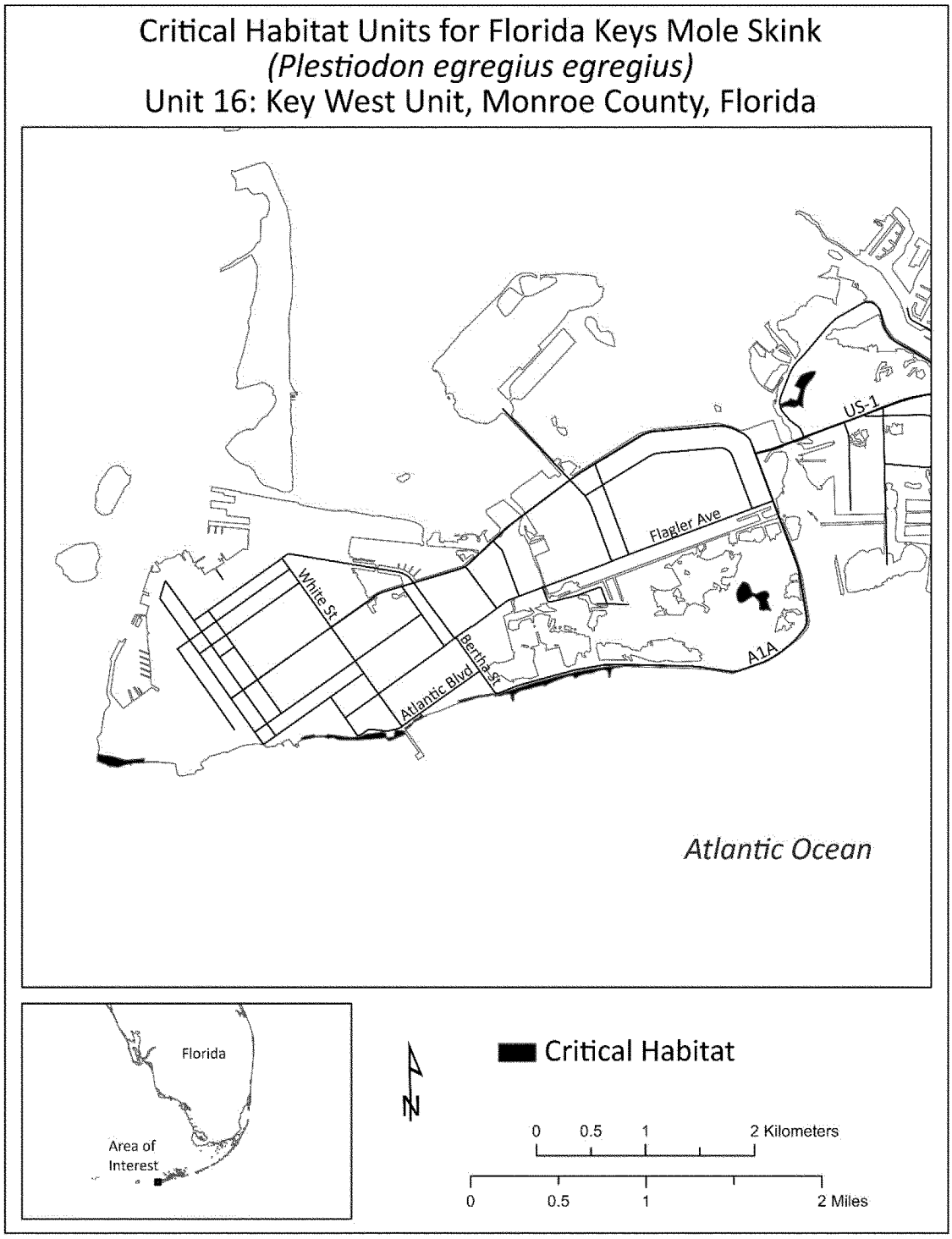


(18) Unit 16: Key West, Monroe County, Florida.

(i) Unit 16 consists of 42 ac (17 ha) in Monroe County, Florida, in the lower Florida Keys. This unit includes State lands within Fort Zachary Taylor State Park (15 ac (6 ha)), local lands (10 ac (4 ha)), and property in private or unknown/undefined ownership (17 ac (7 ha)). The unit originates on the southwest end of Key West and continues intermittently along the beach shoreline to the east until the sand beach stops south of the Key West International Airport. There are two disjunct portions of the unit to the northwest, one just north of the western end of the airport and the other on Stock Island, within the Key West Tropical Forest and Botanical Garden.

(ii) Map of Unit 16 follows:

Figure 15 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (18)(ii)

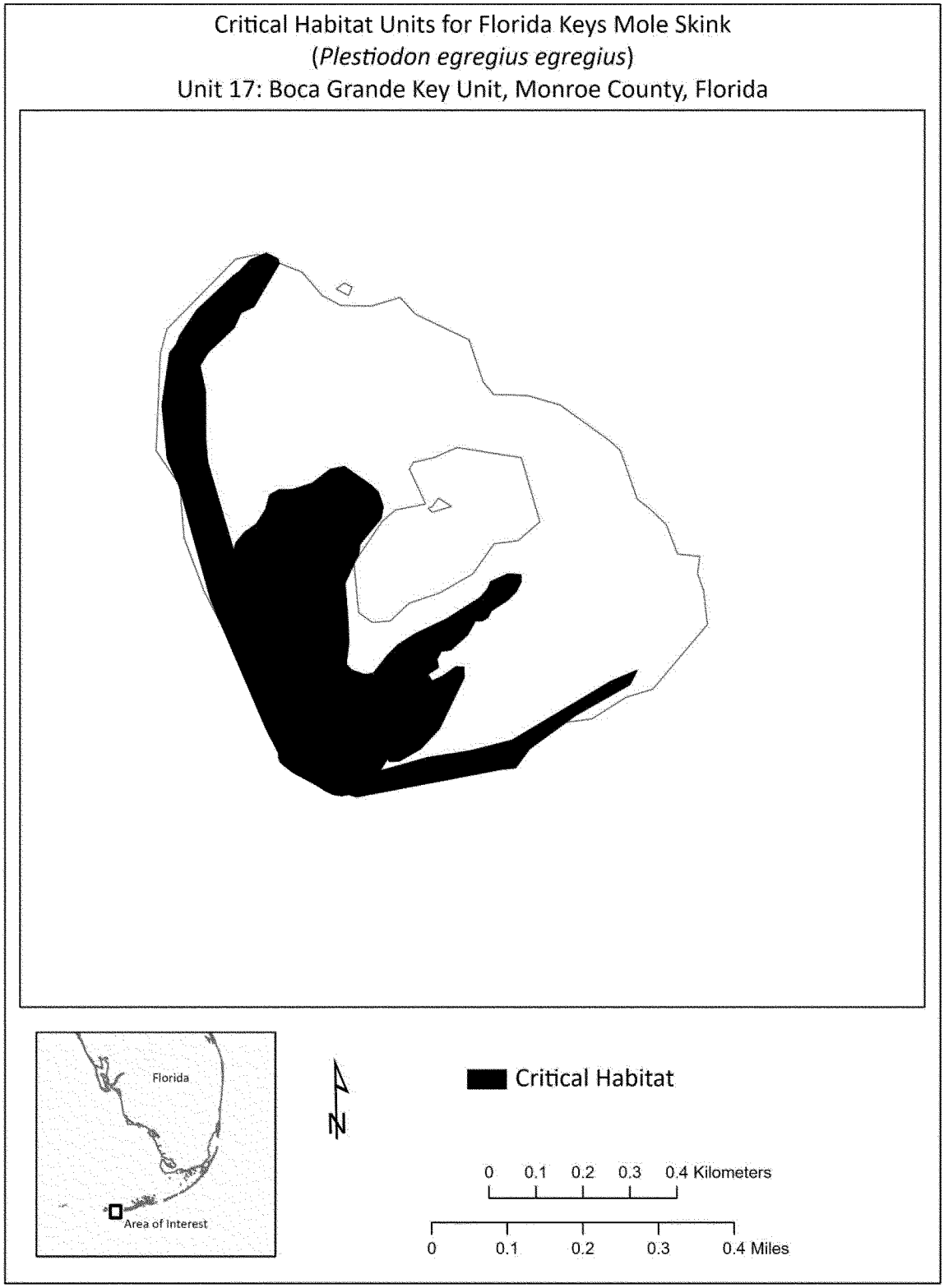


(19) Unit 17: Boca Grande Key, Monroe County, Florida.

(i) Unit 17 consists of 71 ac (29 ha) in Monroe County, Florida, in the Distal Sand Region of the Florida Keys. This unit is entirely in Federal ownership as part of the Key West National Wildlife Refuge. The unit stretches along the entire western and southern shore of Boca Grande Key.

(ii) Map of Unit 17 follows:

Figure 16 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (19)(ii)



(20) Unit 18: Marquesas Key, Monroe County, Florida.

(i) Unit 18 consists of 149 ac (60 ha) in Monroe County, Florida, in the Distal Sand Region of the Florida Keys. This unit is entirely in Federal ownership as part of the Key West National Wildlife Refuge. The unit originates at the western tip of the north shore of the northernmost Marquesas Keys and continues west until the coastal berm stops.

(ii) Map of Unit 18 follows:

Figure 17 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (20)(ii)

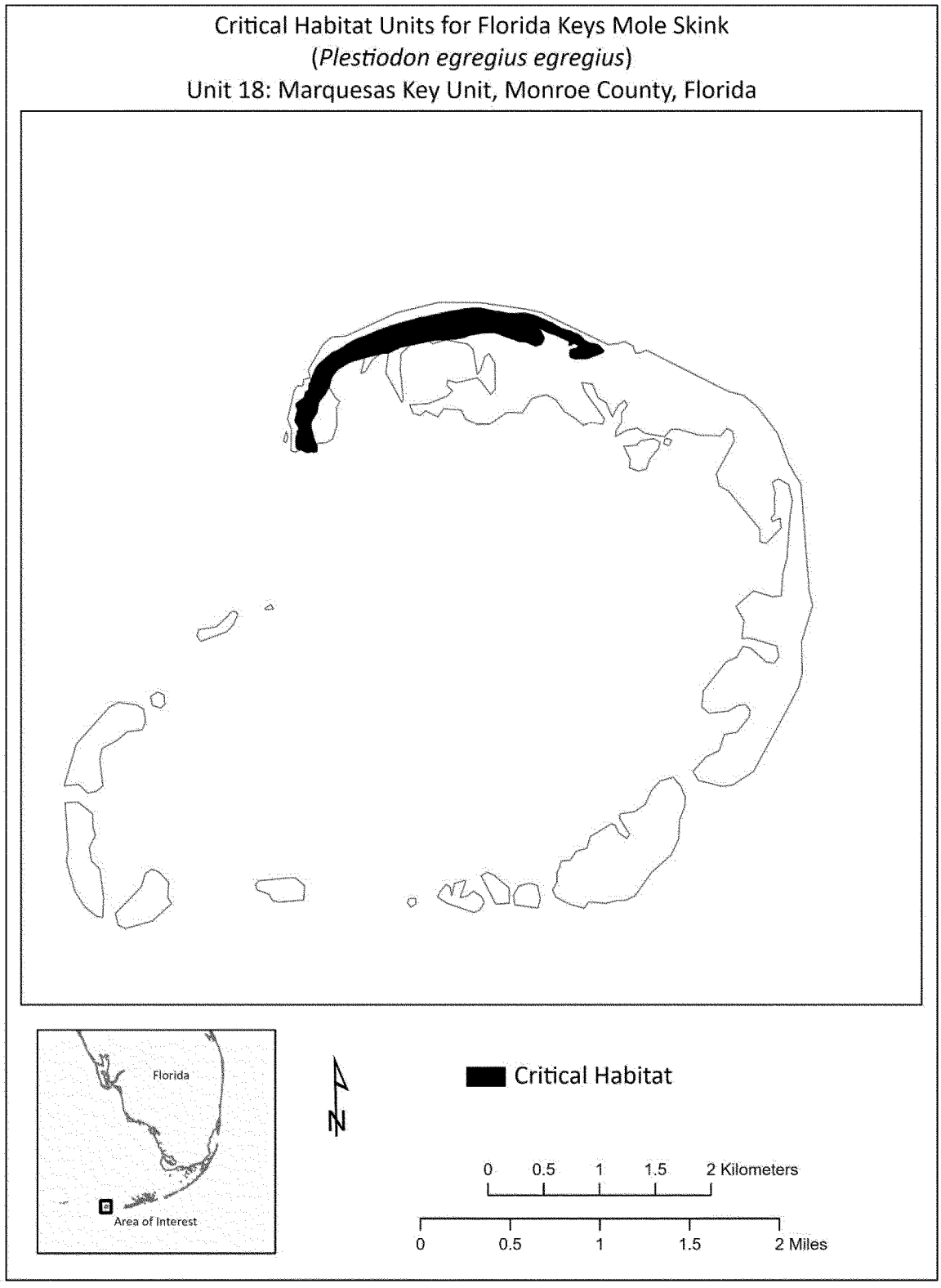
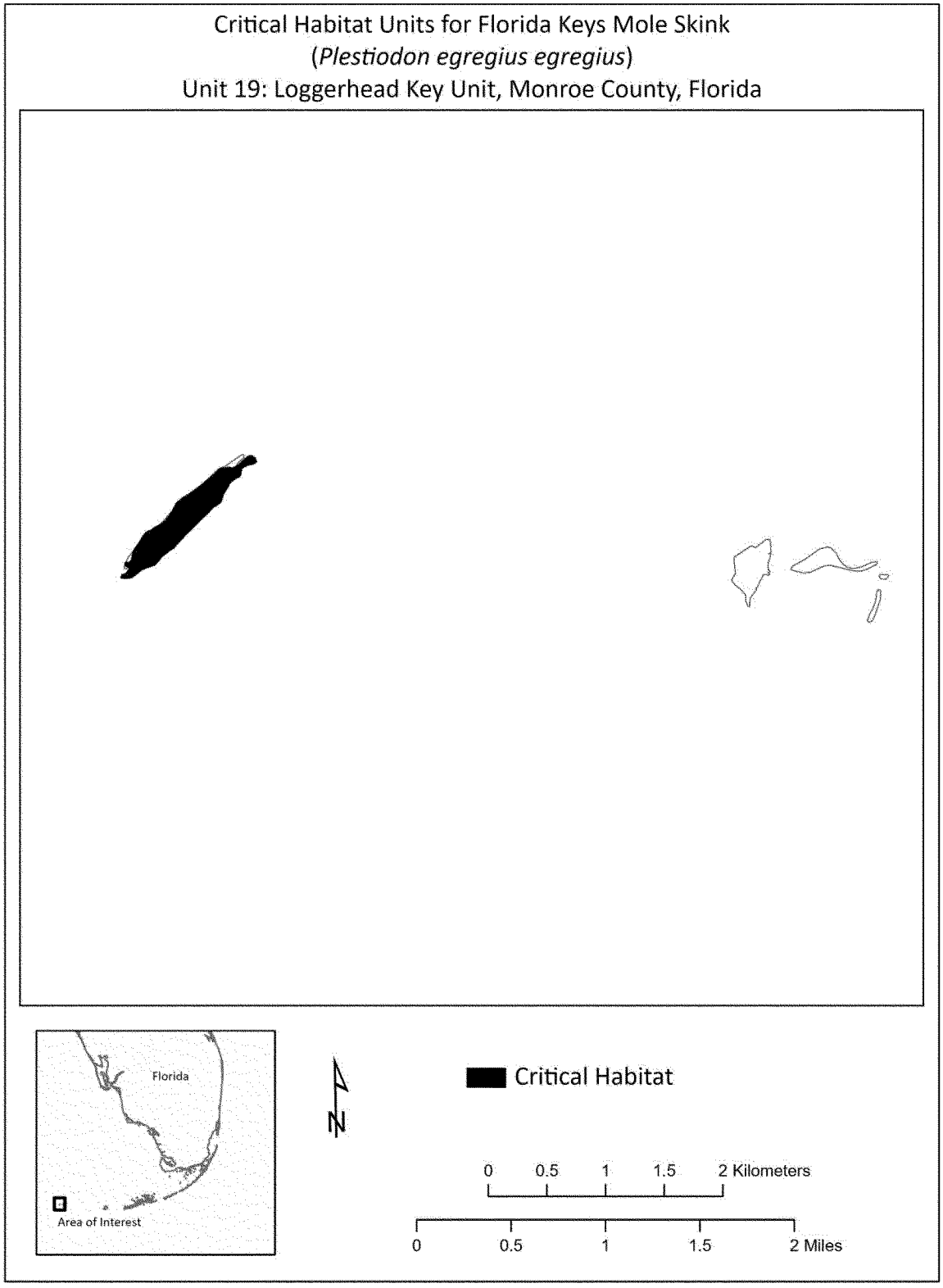


Figure 18 to Florida Keys Mole Skink (*Plestiodon egregius egregius*) paragraph (21)(ii)

(21) Unit 19: Loggerhead Key, Monroe County, Florida.

(i) Unit 19 consists of 65 ac (26 ha) in Monroe County, Florida, in the Distal Sand Region of the Florida Keys. The unit encompasses the entire island of Loggerhead Key, which is in Federal ownership as part of the Dry Tortugas National Park.

(ii) Map of Unit 19 follows:



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Madonna Baucum,

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