DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Docket No. FWS–R8–ES–2013–0099

[FXES11130900000-145-FF09E42000]

RIN 1018–AY44

Endangered and Threatened Wildlife and Plants; Removing the Island Night Lizard from the Federal List of Endangered and Threatened Wildlife

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: Under the authority of the Endangered Species Act of 1973, as amended (Act), we, the U.S. Fish and Wildlife Service (Service), remove the island night lizard (*Xantusia riversiana*) from the Federal List of Endangered and Threatened Wildlife. This

determination is based on a thorough review of the best available scientific and commercial information, which indicates that the threats to this species have been eliminated or reduced to the point that the species has recovered and no longer meets the definition of an endangered species or threatened species under the Act.

DATES: This rule becomes effective on [INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION].

ADDRESSES: This final rule and post-delisting monitoring plan are available on the Internet at *http://www.regulations.gov* at Docket Number [FWS–R8–ES–2013–0099]. Comments and materials received, as well as supporting documentation used in the preparation of this rule, will be available for public inspection, by appointment, during normal business hours at: U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office, 2177 Salk Avenue Suite 250, Carlsbad, CA 92008.

FOR FURTHER INFORMATION CONTACT: Scott Sobiech, Deputy Field Supervisor, Carlsbad Fish and Wildlife Office, (see **ADDRESSES**); by telephone 760–431–9440; or by facsimile (fax) 760–431–5901. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

This document contains: (1) A final rule to remove the island night lizard from the Federal List of Endangered and Threatened Wildlife; and (2) a notice of availability of a final post-delisting monitoring plan.

Species addressed. The island night lizard (*Xantusia riversiana*) is endemic to three federally owned Channel Islands (San Clemente, San Nicolas, and Santa Barbara) located off the southern California coast and a small islet (Sutil Island) located just southwest of Santa Barbara Island. San Clemente and San Nicolas islands are both owned and managed by the U.S. Navy (Navy) and Santa Barbara Island is owned and managed by the National Park Service (NPS). Habitat restoration and reduced adverse human-related impacts since listing have resulted in significant improvements to habitat quality and quantity. As a result, threats to the island night lizard have been largely ameliorated. Though population densities were not known at the time of listing, the island night lizard populations are currently estimated at 21.3 million lizards on San Clemente Island, 15,300 lizards on San Nicolas Island, and 17,600 lizards on Santa Barbara Island (including Sutil Island).

Purpose of the Regulatory Action. Under the Endangered Species Act of 1973, we may be petitioned to list, delist, or reclassify a species. In 2004, we received a petition from the Navy asserting that each of the three occurrences of island night lizard qualify for recognition as a distinct population segment (DPS) under the DPS Policy (61 FR 4722;

February 7, 1996) and requesting that we delist the San Clemente and San Nicolas Island DPSs (Navy 2004, p. 12). In 2006, we published a 90-day finding (71 FR 48900, August 22, 2006) concluding that the Navy's petition provided substantial information supporting that delisting may be warranted and we thus announced the initiation of a status review for this species. On February 4, 2013, we published a 12-month finding in response to the Navy's petition and proposed removing the island night lizard from the Federal List of Endangered and Threatened Wildlife (78 FR 7908). Threats to this species have been largely ameliorated and all remaining potential threats are currently managed by the Navy and NPS, with the exception of climate change, which is difficult to predict. Therefore, we have determined in this final rule that the island night lizard no longer meets the definitions of threatened or endangered under the Act. This final rule removes the island night lizard from the Federal List of Endangered and Threatened Wildlife.

Basis for the Regulatory Action. Under the Act, a species may be determined to be an endangered species 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 manmade factors affecting its continued existence. We must consider the same factors in delisting a species. We may delist a species if the best scientific and commercial data indicate the species is neither threatened nor endangered for one or more of the following reasons: (1) The species is extinct; (2) the species has recovered and is

no longer threatened or endangered; or (3) the original scientific data used at the time the species was classified were in error.

Threats to the island night lizard at the time of listing included destruction of habitat by feral goats and pigs, predation, and the introduction of nonnatives throughout the species' range. We reviewed all available scientific and commercial information pertaining to the five threat factors in our status review of the island night lizard. The results of our status review are summarized below.

- We consider the island night lizard to be "recovered" because all substantial threats to the lizard have been ameliorated.
- All remaining potential threats to the species and its habitat, with the exception of climate change, are currently managed through implementation of management plans.
- While we recognize that results from climate change such as rising air temperatures, lower rainfall amounts, and rising sea level are important issues with potential effects to the island night lizard and its habitat, the best available information does not indicate that potential changes in temperature, precipitation patterns, and rising sea levels would significantly impact the island night lizard or its habitat nor rise to the magnitude or severity such that the species would be likely to become an endangered species within the foreseeable future. We expect that the lizard's susceptibility to climate change is somewhat reduced by its ability to use varying habitat types and by its broad generalist diet; therefore, we do not consider climate change to be a substantial threat to the species at this time.

- We find that delisting the island night lizard is warranted and are removing this taxon from the Federal List of Endangered and Threatened Wildlife.
- We have also prepared a final post-delisting monitoring plan to monitor the island night lizard after delisting to verify that the species remains secure.

Acronyms Used

We use several acronyms throughout the preamble to this rule. To assist the reader, we set them forth here:

BMP = best management practices

DPS = Distinct Population Segment

FMP = Fire Management Plan

INLMA = Island Night Lizard Management Area

INRMP = Integrated Natural Resources Management Plan

MSRP = Montrose Settlements Restoration Program

Navy = United States Department of the Navy

NEPA = National Environmental Policy Act (Federal)

NPS = National Park Service

OMB = Office of Management and Budget

PDM = post-delisting monitoring

PRBO = Point Reyes Bird Observatory

Service = United States Fish and Wildlife Service

Background

This is a final rule to remove the island night lizard from the Federal List of Endangered and Threatened Wildlife. It is our intent to discuss in this final rule only those topics directly relevant to the removal of the island night lizard from the Federal List of Endangered and Threatened Wildlife.

Previous Federal Actions

Please refer to the proposed rule to delist the island night lizard (78 FR 7908; February 4, 2013) for a detailed description of previous Federal actions concerning this species. This document is our final rule to remove the island night lizard from the Federal List of Endangered and Threatened Wildlife.

Changes from Proposed Rule

(1) We inadvertently labeled a header in Table 1 as "Estimated Population (million)." We corrected Table 1 (see below) to reflect the populations on San Nicolas and Santa Barbara islands numbering in the thousands and not millions.

Table 1. Island size, amount of habitat, and population size of the island night lizard.

Island	Size	Amount of High-Quality Habitat*	Estimated Population

San Clemente	37,200 ac (15,054 ha)	19,640 ac (7,948 ha)	21.3 million
San Nicolas**	14,230 ac (5,698 ha)	11.8 ac (4.8 ha)	15,300
Santa Barbara	640 ac (259 ha)	25.9 ac (10.5 ha)	17,599

* High-quality habitat (*Lycium californicum* and *Opuntia* spp.)
** Amount of habitat includes cobble and driftwood habitat unique to San Nicolas Island.

(2) In the proposed rule (78 FR 7908, 7914), we stated that it was unknown whether the mixed-shrub habitat on San Nicolas Island supported a self-sustaining population of lizards. Through comments received by peer reviewers, we correct that statement to reflect that the mixed-shrub habitat on San Nicolas Island does support a self-sustaining population of island night lizards.

(3) In the proposed rule (78 FR 7908, 7911), we stated that in October 2006 following a very rainy winter on San Clemente Island (9.65 in (245 mm) of rainfall), surveys revealed 45 of the 127 lizards captured (35 percent) were yearlings (in the first year of life). This information is incorrect. First, the survey took place in February 2006 after a very rainy July and August, and 15 of the 84 lizards captured (17.9 percent) were neonates (in the first year of life). Second, lizards identified as yearlings are in the second year of life. These corrections are represented below (see Biology and Life History section below).

(4) We inadvertently left the following three references off the List of References Cited in the proposed rule: Dunkle 1950, Schwartz 1994, and USGS 2001. These are incorporated into this final rule's List of References Cited.

Species Information

The following "Biology and Life History" and "Distribution and Habitat" sections contain information updated from that presented in the proposed rule to remove the island night lizard from the Federal List of Endangered and Threatened Wildlife, which published in the **Federal Register** on February 4, 2013 (78 FR 7908). A thorough discussion on the species description, population density, and abundance is also found in the proposed rule (78 FR 7908).

Biology and Life History

The island night lizard is a slow-growing, late-maturing, and long-lived lizard (Goldberg and Bezy 1974, pp. 355–358; Fellers and Drost 1991, pp. 36–42). Island night lizards can live 10 years or more, with some individuals estimated to be 30 years of age (Fellers and Drost 1991, p. 38; Mautz 1993, p. 420; Fellers *et al*. 1998, p. 25).

Members of the genus *Xantusia* are primarily active during the day (Bezy 1988, p. 8); however, they are highly sedentary and tend to remain under shelter such as dense vegetation or rocks (Fellers and Drost 1991, pp. 50, 55; Mautz 1993, p. 419). Sheltered areas provide suitable cover to protect the species from predation and allow sufficient amounts of sunlight to penetrate to the ground, providing a range of temperatures for thermal regulation (regulation of body temperature) (Mautz 2001a, pp. 9–12).

Island night lizards are viviparous (bear live young) and reach sexual maturity at approximately 3 to 4 years of age (Goldberg and Bezy 1974, p. 355; Fellers and Drost 1991, p. 40). Breeding begins around March or April, and single broods of young are born around September (Goldberg and Bezy 1974, p. 353). Females demonstrate irregular intervals between reproductive cycles, but appear to approach a biennial cycle (approximately half of sexually mature females reproduce in any given year) (Goldberg and Bezy 1974, p. 358). The island night lizard is unique within the genus *Xantusia* for having a brood size greater than two (Fellers and Drost 1991, p. 59); however, brood size differs among each of the islands where the species occurs, with females on San Nicolas Island averaging 5.3 young per brood, and females on both San Clemente and Santa Barbara Islands averaging 3.9 young per brood (Fellers and Drost 1991, p. 60).

Based on multiple years of surveys on San Clemente Island, neonate (young of the year) island night lizards on average comprise about 25 percent of the population (Mautz 1993, p. 422); however, this percentage may be an overestimate as adult lizards are largely inactive in the fall and winter months and neonates are more active during these months (Fellers and Drost 1991, p. 48). Additionally, this percentage may be lower during periods of drought. Between August 2003 and July 2004, only 1.65 in (42 mm) of rain fell on San Clemente Island (Mautz 2005, p. 5). Surveys conducted in 2004 during the first part of the birthing season (early September) revealed neonate lizards comprised only 14 of the 199 lizards captured (approximately 7 percent) (Mautz 2005, p. 5). In contrast, surveys conducted in February 2006 following a very rainy August and July on San Clemente Island (9.65 in (245 mm) of rainfall) revealed 15 of the 84 lizards (17.9

percent of those captured) were neonates (Mautz 2007, pp. 29–30). The increase in the percentage of neonates between dry and wet years may be representative of the species' reproductive response to annual variations in rainfall and food abundance.

Island night lizards are omnivorous, with a diet primarily consisting of insects and plant matter (Knowlton 1949, p. 45; Brattstrom 1952, pp. 168–171; Mautz 1993, p. 417). Analyses of stomach and digestive tract contents of 24 lizards collected from San Clemente Island in 1948 revealed an omnivorous diet consisting of insects (including species of Hemiptera, Coleoptera, Lepidoptera, Diptera, and Hymenoptera); grass, sedge, seeds, and fruits; lizard skin; and the remains of what appeared to be juvenile mice (Knowlton 1949, p. 45). In 15 of the 24 specimens, plant material constituted at least 50 percent of the total food identified in the stomach contents (Knowlton 1949, p. 46). A more detailed analysis of numerous species of *Xantusia*, including specimens of the island night lizard from San Clemente, San Nicolas, and Santa Barbara Islands, was conducted by Brattstrom (1952, p. 3). Based on samples of the stomach and intestinal contents, Brattstrom (1952, p. 172) determined that the island night lizard eats the widest variety of foods of any of the species of the Genus *Xantusia* included in the research. Although all age groups will eat both plant and animal material, younger lizards consume a greater amount of animal prey in their diet than older lizards (Fellers and Drost 1991, p. 56). Plant material found in the stomach or fecal samples of island night lizards included *Mesembryanthemum crystallinum* (crystalline iceplant); the fruits, flowers, and leaves of *Lycium californicum* (California boxthorn); and the fruits of *Atriplex semibaccata* (Australian saltbush) (Fellers and Drost 1991, pp. 55–56).

Distribution and Habitat

The island night lizard is endemic to three Channel Islands (San Clemente, San Nicolas, and Santa Barbara) located off the southern California coast (Goldberg and Bezy 1974, pp. 355–358; Fellers and Drost 1991, p. 28) and a small islet (Sutil Island) located just southwest of Santa Barbara Island (Bezy *et al*. 1980, p. 579). San Clemente, San Nicolas, and Santa Barbara Islands vary in size, and the amount of suitable habitat available for the island night lizard (see Table 1 above under *Changes from Proposed Rule* section above, which highlights the lizard's estimated population size for each island in relation to each island's size and the available habitat present).

Different surveys and descriptions of the vegetation types on San Clemente, San Nicolas, and Santa Barbara Islands have referred to the habitat supporting island night lizards under various names and descriptions. Although referred to by numerous names and descriptions, two vegetation types identified by Sawyer *et al.* (2009) support most of the known dominant plant taxa associated with the lizard. The two vegetation types are Coast prickly pear scrub and *Lycium californicum* Provisional Shrubland Alliance. In Coast prickly pear scrub, cacti such as *Opuntia littoralis* (coastal prickly pear), *Opuntia oricola* (chaparral prickly pear), and *Cylindropuntia prolifera* (coast cholla) are dominant or codominant among the shrub canopy (Sawyer *et al.* 2009, pp. 599–601).

Cylindropuntia prolifera is referred to by its older Latin name, *Opuntia prolifera*, in numerous references cited in this document (for example, Fellers and Drost 1991, pp. 34, 68; Mautz 2001a, p. 17; Navy 2002, p. 3.54). While we recognize that *C. prolifera* is the currently accepted name of this species and is used in discussions that reference current literature in this document (for example, Sawyer *et al.* 2009 and NPS *in litt.* 2011b), we will use the older name of *O. prolifera* only when referencing previous literature. *Lycium californicum* Provisional Shrubland Alliance is characterized by the prevalence of *L. californicum* (Sawyer *et al.* 2009, p. 588). To eliminate any confusion, we will refer to the vegetation types that comprise high-quality habitat and support high island night lizard densities as *L. californicum* and *Opuntia* spp. habitats.

Surveys conducted on the islands occupied by the island night lizard indicate strong habitat preferences for *Lycium californicum* and *Opuntia* spp. habitats (Fellers and Drost 1991, p. 34; Schwemm 1996, pp. 3–4; Mautz 2001a, p. 23; Mautz 2004, p. 18). These habitats are considered high-quality because they offer suitable cover to protect the species from predation and allow sufficient amounts of sunlight to penetrate to the ground, which provides a thermal mosaic for thermal regulation (Mautz 2001a, pp. 9–11, 17–18). Island night lizards are also known to occupy grasslands, *Coreopsis gigantea* stands, mixed-shrub communities, and rocky outcrops across all islands, as well as a unique cobble and driftwood habitat found only on San Nicolas Island (Fellers and Drost 1991, p. 34; Schwemm 1996, pp. 3–4; Fellers *et al.* 1998, p. 9; Mautz 2001a, p. 23; Mautz 2004, p. 18). Loose rocks or crevices in clay soils are also important habitat

components within island night lizard habitat (Fellers and Drost 1991, p. 53; Mautz 2001a, p. 17).

Mautz (2001a, pp. 17–18) suggested that vegetation community characteristics, such as habitat structure, may be as important to island night lizard habitat as plant species composition. This assertion is corroborated by Fellers *et al*. (1998, p. 16), who concluded that plywood debris, which serves as cover in grasslands with scattered *Haplopappus* (haplopappus) (now known as *Isocoma menziesii* (Menzies goldenbush)), and few to no other shrub species, was a factor that contributed to high densities of lizards at sampling sites on San Nicolas Island.

In addition to natural cover, artificial cover created by human presence on San Clemente, San Nicolas, and Santa Barbara Islands is also utilized by island night lizards, thereby enabling them to persist in areas of otherwise unsuitable habitat. During surveys for the species on San Clemente and San Nicolas Islands, lizards were routinely found under pieces of plywood discarded by Navy personnel (Fellers *et al*. 1998, p. 18). The presence of these boards, some of which may have been in place for a decade or more, provided an opportunity for researchers to assess longevity of the species because some specific lizards were recorded (captured and recaptured) over long intervals of time (Fellers *et al.* 1998, p. 7). Underlying soils may also indicate whether an area supports lizards. Extensive trapping conducted on San Nicolas Island determined that loose sand substrates are unsuitable for the species (Fellers *et al.* 1998, pp. 11–17). Very little information exists concerning the vegetative communities on Sutil Island.

San Clemente Island

San Clemente Island supports approximately 19,640 acres (ac) (7,948 hectares (ha)) of high-quality island night lizard habitat distributed primarily along the western marine terraces (Navy 2002, p. 3.54). There are approximately 13,791 ac (5,581 ha) of *Opuntia* spp. habitat and 5,849 ac (2,367 ha) of *Lycium californicum* habitat (Service 1997, p. 6; Navy 2002, p. 3.54). From 1992 to 2008, a long-term trend analysis was conducted, which indicated no clear trend in habitats dominated by *Opuntia* spp. or *L. californicum* on San Clemente Island (Tierra Data Inc. 2010, pp. 48–67). However, there was an approximate 6 percent reduction in percent cover of *L. californicum* and 10 percent reduction in percent cover of *Opuntia* spp. on the island over this timeframe (Tierra Data Inc. 2010, pp. 48–67). This observed decrease in percent cover was likely due to high rainfall amounts experienced in the baseline years from 1991 to 1993, in comparison to lower rainfall amounts in subsequent years (Tierra Data Inc. 2010, p. 125).

Low- to moderate-quality island night lizard habitat consisting of *Artemisia* spp. (sagebrush), *Eriogonum* spp. (buckwheat), *Deinandra clementina* (as *Hemizonia clementina*) (Catalina tarweed), as well as *Lycium californicum* and *Opuntia* spp., occupies approximately 386 ac (156 ha) of the northeastern escarpment of San Clemente Island (Navy 2002, p. 3.65). Low-quality grassland habitat occupies approximately 11,831 ac (4,788 ha) on the central plateau and eastern scarp of the island (Navy 2002, p. 3.54). Lizards on San Clemente Island have not been found in closed-canopy canyon or

woodland habitats, which do not allow sufficient amounts of sunlight to penetrate the canopy cover for thermal regulation, or active sand dunes that do not offer sufficient cover for the species (Mautz 2001a, pp. 4, 9, 18).

San Nicolas Island

Due to differing surveying techniques, methodologies, and precision of mapping efforts, the amount of high-quality habitat reported on San Nicolas Island has varied over time. Based on these various surveys, little high-quality habitat is known to exist on San Nicolas Island. Site-specific vegetation transects completed in 1996 failed to locate *Lycium californicum* and only once located *Opuntia* spp. (Chess *et al.* 1996, pp. 19–46). Fellers *et al*. (1998, p. 46) conducted an island-wide analysis of the vegetation on San Nicolas Island, utilizing aerial photos and limited on-the-ground surveys, and estimated 1.9 ac (0.8 ha) of high-quality island night lizard habitat and approximately 161 ac (65 ha) of lower quality mixed-shrub habitat occur on San Nicolas Island. In 2003, Junak (2003, p. 7) also conducted an island-wide survey of the vegetation utilizing helicopter flyovers, extensive on-the-ground surveys, and Global Positioning System receivers and estimated that approximately 11.2 ac (4.6 ha) of high-quality habitats were available on the island.

Differences in the amount of high-quality habitat reported may be attributed to varying surveying methodologies and techniques (e.g., comparing acreages of only *L. californicum* and *Opuntia* spp. to acreages of vegetation communities where *L.*

californicum and *Opuntia* spp. are dominant among a vegetative community). However, this habitat is stable, and active restoration efforts (see discussion of Nonnative Animals under *Factor A: The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range* below) continue to improve habitat conditions for the island night lizard on San Nicolas Island.

High-quality habitat occurs primarily on the eastern half of the island and is patchily distributed among lower quality habitat (Fellers *et al.* 1998, pp. 13–14). The lower-quality habitat is a mixed-shrub community comprised of *Isocoma menziesii*, *Calystegia macrostegia* (island morning-glory), *Coreopsis gigantea*, *Atriplex semibaccata*, *Deinandra clementina*, *Lupinus albifrons* (silver lupine), *Baccharis pilularis* (coyote brush), and *Artemisia* spp. (Fellers *et al.* 1998, pp. 16–17). Island night lizards generally do not inhabit the western half of San Nicolas Island due to a lack of suitable vegetative or rock cover. One exception is a 0.6-ac (0.2-ha) area of cobble and driftwood habitat at Redeye Beach that is just above the intertidal zone on the northwestern side of the island (Fellers *et al.* 1998, p. 11). Occupancy within this small area of cobble and driftwood habitat, which supports the highest density of lizards on the island, is unique to San Nicolas Island (Fellers *et al*. 1998, p. 11).

Santa Barbara Island

Habitat on Santa Barbara Island is limited due to the small size of the island and the extensive habitat damage that occurred historically when goats (*Capra* spp.), sheep

(*Ovis* spp.), and European rabbits (*Oryctolagus cuniculus*) were present (Service 1984, pp. 45–46; Fellers and Drost 1991, p. 70). Similar to San Nicolas Island, the amount of high-quality habitat reported on Santa Barbara Island has varied over time due to differing survey methodologies and precision of mapping efforts. However, this habitat is stable, and active restoration efforts continue to improve habitat conditions for the island night lizard on Santa Barbara Island.

Using aerial photographs of the island from 1983 and ground surveys, Fellers and Drost (1991, p. 68) identified approximately 14.8 ac (6 ha) of high-quality habitat on Santa Barbara Island consisting only of *Lycium californicum*, *Opuntia* spp., or rock outcrops. Low- to moderate-quality habitat on Santa Barbara Island also contains some *Lycium californicum* and *Opuntia* spp., but is dominated by *Coreopsis gigantea*, *Eriogonum giganteum* var. *compactum* (Santa Barbara Island buckwheat), and *Constancea nevinii* (formerly *Eriophyllum nevinii*) (silver-lace) (Fellers and Drost 1991, p. 70); these native shrub communities are patchily distributed in grasslands across a majority of the island (Halvorson *et al.* 1988, p. 111).

The NPS is preparing a new preliminary vegetative analysis of Santa Barbara Island, but it has not been finalized (Rodriguez 2013a, pers. comm.). Preliminary results from surveys conducted in 2010 by the NPS indicate an increase in high-quality habitat from the estimate determined by Fellers and Drost (1991, p. 68), where *Lycium californicum and Opuntia* spp. are dominant or codominant among the vegetation (NPS 2011b, *in litt*.). Though the report has not been finalized, results indicate that there are

approximately 16.6 ac (6.7 ha) of *L. californicum* and 9.3 ac (3.8 ha) of *Opuntia oricola* habitat where these taxa account for greater than 39 percent of the vegetative cover (Rodriguez 2012, pers. obs.). A preliminary analysis concerning *Cylindropuntia prolifera*, another documented vegetation component of high-quality island night lizard habitat, is not yet available.

Sutil Island

Little is known about the habitat on Sutil Island. Sutil Island consists of approximately 13.7 ac (5.5 ha) (Rudolph 2011, pers. obs.), much of it unbroken bedrock, with some vegetation identified as island night lizard habitat, such as low shrubs, *Lycium californicum*, and rocks and fissures, but these are sparsely distributed (Drost 2011, pers. obs.). Sutil Island was not known to be occupied at the time the island night lizard was listed. In 1978, a survey of Sutil Island was conducted, and 12 lizards were identified (Wilson 1979, as cited in Power 1979, p. 8.5). In 1991, Drost (2011, pers. obs.) visited the island and though there was little habitat that could be turned or searched, he observed one lizard in a rock crevice. He noted that though vegetative cover on the island was sparse, there were surface cracks, fissures, and boulder cover that could provide cover. We have no surveys for the island night lizard on Sutil Island since 1978. Because Sutil Island is within close proximity to Santa Barbara Island (0.4 miles (0.65 kilometers)), has very few to no visitors annually, and like Santa Barbara Island is managed by the NPS, we will incorporate Sutil Island in the discussion of Santa Barbara Island for the remainder of this document.

Recovery and Recovery Plan Implementation

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Under section 4(f)(1)(B)(ii), recovery plans must, to the maximum extent practicable, include: "Objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of [section 4 of the Act], that the species be removed from the list." However, revisions to the list (adding, removing, or reclassifying a species) must reflect determinations made in accordance with sections 4(a)(1) and 4(b) of the Act. Section 4(a)(1) requires that the Secretary determine whether a species is endangered or threatened (or not) because of one or more of five threat factors. Section 4(b) of the Act requires that the determination be made "solely on the basis of the best scientific and commercial data available." Therefore, recovery criteria should help indicate when we would anticipate an analysis of the five threat factors under section 4(a)(1) would result in a determination that the species is no longer an endangered species or threatened species because of any of the five statutory factors.

Thus, while recovery plans provide important guidance to the Service, States, and other partners on methods of minimizing threats to listed species and measurable objectives against which to measure progress towards recovery, they are not regulatory documents and cannot substitute for the determinations and promulgation of regulations

required under section 4(a)(1) of the Act. A decision to revise the status of or remove a species from the Federal List of Endangered and Threatened Plants (50 CFR 17.12) is ultimately based on an analysis of the best scientific and commercial data then available to determine whether a species is no longer an endangered species or a threatened species, regardless of whether that information differs from the recovery plan.

In 1984, we finalized a recovery plan for the island night lizard and nine other island species (Endangered and Threatened Species of the California Channel Islands (Recovery Plan); Service 1984). Given the threats in common to the 10 species addressed, the Recovery Plan is broad in scope and focuses on restoration of habitats and ecosystem function. The Recovery Plan included 6 general objectives for all 10 species:

(1) Identify present adverse impacts to biological resources and strive to eliminate them.

(2) Protect known resources from further degradation by: (a) Removing feral herbivores, carnivores, and selected exotic plant species; (b) controlling unnatural erosion in sensitive locations; and (c) directing military operations and adverse recreational uses away from biologically sensitive areas.

(3) Restore habitats by revegetating disturbed areas using native species.

(4) Identify areas of San Clemente Island where habitat restoration and population increase of certain addressed taxa may be achieved through a careful survey of the island and research on habitat requirements of each taxon.

(5) Delist or upgrade the listing status of those taxa that achieve vigorous, self-sustaining population levels as the result of habitat stabilization, restoration, and

preventing or minimizing adverse human-related impacts.

(6) Monitor effectiveness of recovery effort by undertaking baseline quantitative studies and subsequent followup work (Service 1984, pp. 106–107).

Specific criteria for determining when threats have been removed or sufficiently minimized for the island night lizard are not identified in the Recovery Plan (although various actions are identified in the Recovery Plan that promote the recovery of island night lizard and described further in the **Recovery** section of the proposed rule). Following are a summary of actions and activities that have been implemented according to the Recovery Plan (Service 1984, pp. 106–107) and that contribute to achieving the six recovery objectives.

Objective 1: Identify present adverse impacts to biological resources and strive to eliminate them.

Actions taken by the Navy and NPS supporting the achievement of this objective include: education and outreach; development and implementation of management plans to identify, minimize, and address threats; management, control, and elimination of nonnative predators, herbivores, and invasive plants; consultation and coordination with the Service; and control of erosion. These actions are discussed briefly below and in greater detail in the five-factor analysis.

The Navy has taken steps to eliminate incidental impacts to the island night lizard by educating all Navy personnel stationed on San Clemente and San Nicolas Islands. All Navy personnel receive handouts, pamphlets, or posters presenting information on the distribution, threats, and management responsibilities of sensitive resources, such as federally threatened and endangered species, including the island night lizard. The NPS has also taken steps to eliminate incidental impacts to the lizard by educating all visitors to Santa Barbara Island (including Sutil Island). Brochures discussing the island's unique wildlife, including the island night lizard, as well as maps of designated trails that all visitors must use to decrease disturbance to wildlife and lessen damage to resources, are available to all visitors of the island at the visitors' center or online at the Channel Islands National Park's Web site (*http://www.nps.gov/chis/index.htm*).

The Recovery Plan also recommends that existing laws and regulations be used to protect candidate, threatened, and endangered species, including the island night lizard. Based on the occurrences of this species on federally owned land, the primary laws with potential to protect the island night lizard include the National Environmental Policy Act (NEPA), the Sikes Act Improvement Act, the NPS Organic Act, the Federal Noxious Weed Act, and the Soil Conservation and Domestic Allotment Act, in addition to the Act. Since listing of the island night lizard under the Act in 1977, the Navy and NPS have had a history of consultation and coordination with the Service regarding the effects of various activities on the island night lizard on San Clemente, San Nicolas, and Santa Barbara Islands.

NEPA requires Federal action agencies to integrate environmental values into their decisionmaking processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. Since its enactment in 1970, the Navy has implemented NEPA for actions on San Clemente and San Nicolas Islands, and the NPS has implemented NEPA for actions on Santa Barbara Island (including Sutil Island).

The Sikes Act (16 U.S.C. 670) authorizes the Secretary of Defense to develop cooperative plans with the Secretaries of Agriculture and the Interior for natural resources on public lands (see *Sikes Act Improvement* Act section under *Factor D. Inadequacy of Existing Regulatory Mechanisms* below for further discussion). Pursuant to the Sikes Act Improvement Act of 1997, the Navy developed integrated natural resources management plans (INRMPs) for San Clemente Island in 2002 and San Nicolas Island in 2010 that help guide the management and protection of each island's natural resources (Navy 2002; Navy 2010).

INRMPs incorporate, to the maximum extent practicable, ecosystem management principles and provide the landscape necessary to sustain military land uses. Each INRMP includes specific management actions and objectives to address the Recovery Plan task of incorporating recovery actions into existing management plans (see *Factor D* below). Through these mechanisms, the Navy is required to identify and address all threats to federally listed species during the INRMP planning process. If possible, threats are ameliorated, eliminated, or mitigated through this procedure. The Navy strives to fulfill this objective through both internal planning (INRMP) and compliance with Federal law

(consultations with the Service under the Act and preparing environmental review documents under NEPA). The actions taken by the Navy under the INRMPs have not completely eliminated all adverse impacts, but many threats to island night lizards have been greatly reduced. These contributions to the elimination of adverse impacts fulfill a majority of this Recovery Plan objective with respect to the island night lizard.

Objective 2: Protect known resources from further degradation by: (a) Removing feral herbivores, carnivores, and selected exotic plant species; (b) controlling unnatural erosion in sensitive locations; and (c) directing military operations and adverse recreational uses away from biologically sensitive areas.

In 1992, the Navy fulfilled a major part of this objective by removing the last of the feral goats and pigs from San Clemente Island. Currently, the Navy has an ongoing predator control program to trap and remove feral cats and rats from San Clemente Island. From 2009 to 2010, projects funded by the Montrose Settlements Restoration Program (MSRP) and conducted by the Navy removed all feral cats from San Nicolas Island. In 1981, the last of the European rabbits (a nonnative herbivore) were removed from Santa Barbara Island. These actions to remove predators and nonnative herbivores, or develop removal programs for potential predators, have fulfilled this component of objective 2 in the Recovery Plan to remove feral and nonnative animals. Additionally, the Navy on both San Clemente and San Nicolas Islands, in accordance with the Federal Noxious Weed Act and through implementation of the Navy's INRMPs, conducts actions to reduce or eliminate all transport of nonnative plants to each island, and has facilitated

programs to remove nonnative taxa that currently occur on the islands. On Santa Barbara Island, the NPS implements policies and management activities (in accordance with the Organic Act) that restrict all nonnative plant species from the island. Additionally, in partnership with the MSRP, nonnative plant removal is currently occurring on Santa Barbara Island. The NPS has also developed a Draft General Management Plan emphasizing the eradication of all nonnative plants from Santa Barbara Island (NPS 2013, pp. 50, 83). These actions to control nonnative plants on all islands occupied by the island night lizard have fulfilled most of this component of objective 2 in the Recovery Plan to remove exotic plant species.

The Navy is also taking steps to minimize the effects of erosion on San Clemente Island. Erosion control measures are being incorporated into project designs to minimize the potential to exacerbate existing erosion (O'Connor 2009, pers. comm.). Along with the Navy's planned expansion of its military operational areas, the Navy developed an erosion control plan that minimizes impacts of soil erosion and sedimentation on threatened and endangered species and their habitat (Navy 2013b pp. 5–6). The Erosion Control Plan includes development and application of best management practices (BMPs) to minimize impacts to sensitive resources, including the island night lizard and its habitat; addresses military operations and site-specific erosion control recommendations for areas potentially affected by military operations; provides guidelines for restriction of vehicle maneuvering when soils are wet, operator education, vegetation management, fire management, and methods for gully prevention and restoration; and includes an adaptive management and monitoring plan to assess the BMPs to minimize and prevent soil erosion (Navy 2013b, pp.

35–54, 113–122). On San Nicolas Island the Navy incorporates BMPs for erosion and sedimentation controls during construction and maintenance activities as well as to protect natural resources (Navy 2010, pp. 4.6–4.12). These actions taken by the Navy to reduce the threat of erosion on the island contribute to the achievement of this objective.

Through implementation of INRMPs on San Clemente and San Nicolas Islands, the Navy conducts measures to avoid areas with highly erodible soils. Additionally, San Clemente has a nursery to grow native island plants, which are then used to assist in erosion control of disturbed sites. San Nicolas Island has developed a nursery for similar erosion control measures. On Santa Barbara Island, NPS requires the active preservation of soil resources and the avoidance or minimization of impacts to soil. These actions to prevent erosion fulfill this component of objective 2 of the Recovery Plan.

As recommended through consultation with the Service (Service 1997), the Navy established the Island Night Lizard Management Area (INLMA), which is avoided to the maximum extent practicable, to assist with the recovery of the island night lizard and its habitat. Additionally, through implementation of INRMPs on both San Clemente and San Nicolas Islands, the Navy defines and marks work areas to prevent lizard mortality. The NPS has designated trails on Santa Barbara Island to allow visitors to view the island's ecosystems without being obtrusive or destructive to the natural resources, including island night lizard habitat. These actions to avoid biologically sensitive areas fulfill Recovery Plan Objective 2 with respect to the island night lizard.

Objective 3: Restore habitats by revegetating disturbed areas using native species.

To restore the structure and function of native island ecosystems, the Navy, through implementation of its INRMP on San Clemente Island, has developed the Native Habitat Restoration Program and constructed a native plant nursery where plants, including species that provide a benefit to island night lizard habitat, are grown from seed and stem and root cuttings, and outplanted annually. In 2012, the Navy on San Nicolas Island completed development of a nursery and to date has outplanted approximately 1,300 plants to the island, some of which provide a benefit to the island night lizard. Additionally, projects funded by the MSRP currently grow native plant species in a nursery on Santa Barbara Island to support island night lizard restoration projects. To date, approximately 19,500 native plants, some providing a benefit to the island night lizard, have been restored to Santa Barbara Island. The NPS has also developed a Draft General Management Plan to clearly define and direct resource preservation, including restoration of natural ecosystems, their native habitat, and processes on Santa Barbara Island. These actions to restore habitat by revegetation fulfill the objective as stated in the Recovery Plan.

Objective 4: Identify areas of San Clemente Island where habitat restoration and population increase of certain addressed taxa may be achieved through a careful survey of the island and research on habitat requirements of each taxon.

Since listing, research on the life history and biology of the island night lizard has been ongoing on San Clemente Island. Research has determined the island night lizard's distribution and density in various habitats on San Clemente Island (Mautz 1993; Mautz 2001a). Additionally, the Navy through consultation with the Service developed the INLMA to conserve the largest area of high-quality habitat with the highest densities of island night lizards. The Navy currently avoids and minimizes impacts to the lizard for any projects or training activities proposed in this area through consultation with the Service. Thus, these actions completely fulfill the objective as stated in the Recovery Plan.

Objective 5: Delist or upgrade the listing status of those taxa that achieve vigorous, self-sustaining population levels as the result of habitat stabilization, restoration, and preventing or minimizing adverse human-related impacts.

Since listing, threats to the island night lizard have been largely ameliorated, including removal of all nonnative herbivores from San Clemente and Santa Barbara Islands and removal of feral cats from San Nicolas Island. Given that habitat types that are strongly associated with island night lizards appear to be increasing slowly through natural recovery and restoration projects, as well as the amelioration of all substantial threats to the island night lizard, the populations on the three islands appear to be stable. Remaining threats, such as nonnative plants, land use and development, fire, and erosion, are potentially of concern, but are actively managed through implementation of management plans and measures described in the Navy's INRMPs and NPS's

management policies and active management plans. We consider the populations of the island night lizard to be stable and improving. Thus, the objective to improve the status of the island night lizard to the point it can be delisted has been fully met.

Objective 6: Monitor effectiveness of recovery effort by undertaking baseline quantitative studies and subsequent followup work.

Since listing and publication of the Recovery Plan, island night lizard monitoring has been conducted on San Clemente Island, with one assessment of the population estimated at approximately 21.3 million island night lizards in 2001. High densities of island night lizards were determined to be strongly corresponded to certain habitats. Although no subsequent population assessments have occurred since 2001, ongoing monitoring to assess individual body condition and neonate-to-juvenile ratios indicates the density of island night lizards still strongly corresponds to certain habitats. Assessments of the extent and quality of those habitats have been conducted more recently, as discussed below in more detail.

San Clemente Island supports the largest amount of high-quality island night lizard habitat. Monitoring from 1992 to 2008 has shown fluctuating short-term trends, but no clear long-term trend, in *Opuntia* spp. or *Lycium californicum* habitats on San Clemente Island (Tierra Data Inc. 2010, pp. 48–67). There was an approximate 6 percent reduction in percent cover of *L. californicum* and 10 percent reduction in percent cover of *Opuntia* spp. habitats on the island (Tierra Data Inc. 2010, pp. 48–67). However, this

decreasing trend in percent cover may be explained by changing rainfall patterns measured during this time interval. Higher rainfall amounts occurred from 1991 to 1993, when baseline data for percent cover was first collected. However, in subsequent years, lower rainfall amounts were reported and may therefore be responsible for the decrease in percent cover that was reported during this period (Tierra Data Inc. 2010, p. 125).

While research has not indicated how this reduction in cover affects the island night lizard population, monitoring of the island night lizard population indicates the species remains abundant in suitable habitat. We expect continued monitoring on San Clemente Island, including that associated with ongoing and proposed habitat restoration projects, to show island night lizard populations remaining stable or increasing on the island. These monitoring efforts fulfill the objective as stated in the Recovery Plan.

On San Nicolas Island, researchers conducted one assessment of the island night lizard's population in 1998, resulting in an estimated 15,300 lizards, and two assessments of the vegetation associated with high densities of island night lizards. The first vegetation assessment was conducted in 1998 by Fellers *et al.* (1998). A second vegetation assessment was conducted in 2003 by Junak (2003, p. 7), which indicated an increase in high-quality *Opuntia* spp. and *L. californicum* habitats from 1.9 ac (0.8 ha) in 1998 to 11.2 ac (4.6 ha). This increase was probably due to more current data and better mapping technology. Monitoring of lizards on San Nicolas Island will be conducted every 5 years by the U.S. Geological Survey in connection with proposed habitat restoration projects (Navy 2010, p. 4.55). We expect island night lizard populations to

remain stable or increase in number on the island because this species' population is strongly correlated with abundance of habitat, and current information indicates that the habitat is stable and possibly increasing. Additionally, the Navy is restoring native habitat that can support island night lizards. These monitoring efforts fulfill the objective as stated in the Recovery Plan.

On Santa Barbara Island, there has been one assessment of the island night lizard population in 1991, resulting in an estimated 17,599 lizards, and two assessments of the amount of high-quality habitat consisting of *Opuntia* spp. and *Lycium californicum.* The first habitat assessment was conducted from an examination of aerial photographs from 1983 and indicated a total of 14.8 ac (6.0 ha) of *L. californicum* and *Opuntia* spp. habitats in which these species comprised 100 percent of the vegetation (Fellers and Drost 1991, p. 31). A more recent preliminary draft assessment indicates that approximately 16.6 ac (6.7 ha) of *L. californicum* and 9.3 ac (3.8 ha) of *O. oricola* habitats exist in which these species are dominant and comprise greater than 39 percent of the vegetative cover (Rodriguez 2012, pers. obs.). However, this more recent draft assessment has yet to be finalized (Rodriguez 2013a, pers. obs.). Additionally, pursuant to the MSRP, the NPS continues to restore native habitat on Santa Barbara Island, including species that provide moderate-quality habitat for the island night lizard. Therefore, we expect the island night lizard population to remain stable or increase on Santa Barbara Island. These monitoring actions fulfill this objective as stated in the Recovery Plan.

Summary of Recovery Plan Implementation

In summary, while the Recovery Plan does not include taxon-specific downlisting or delisting criteria for the island night lizard, many of the actions identified in the Recovery Plan have been implemented to benefit the lizard. With the exception of a few recommended recovery actions that are still ongoing, nearly all recovery objectives have been fulfilled through research and monitoring efforts on all occupied islands and implementation of the Navy's INRMPs on San Clemente and San Nicolas Islands and NPS's management policies on Santa Barbara Island. Most significantly, the Navy removed feral goats and pigs from San Clemente Island in 1992. There are currently a number of programs in place to improve habitat suitability, prevent introduction of nonnative species, guide and track management efforts, and protect occurrences of the island night lizard. We investigated other potential threats (see **Summary of Factors Affecting the Species** below for further information on other potential threats) to the lizard and concluded that they do not pose significant impacts. As a result of the management actions conducted by the Navy and NPS, substantial threats have been ameliorated throughout the species' range, and the majority of objectives discussed in the Recovery Plan are fulfilled.

Based on our review of the Recovery Plan, we conclude that the status of the island night lizard has improved due to past and current activities being implemented by the Navy and NPS, and the objectives of the Recovery Plan have been met. The effects of these activities on the status of island night lizard are discussed in further detail below.

Summary of Comments and Recommendations

In the proposed rule published on February 4, 2013 (78 FR 7908), we requested that all interested parties submit written comments on the proposal by April 5, 2013. We also contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. Newspaper notices inviting general public comment were published in the Ventura County Star on February 11, 2013. We did not receive any requests for a public hearing.

During the comment period for the proposed rule, we received six comment letters (two from the public and four from peer reviewers) directly addressing the proposed removal of the island night lizard from the Federal List of Endangered and Threatened Wildlife. All substantive information provided during the comment period has either been incorporated directly into this final determination or addressed below.

Peer Review

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

We reviewed all peer reviewer comments received for substantive issues and new information regarding the island night lizard. Comments included general technical and grammatical corrections, and specific concerns relating to the island night lizard, its habitat, or current management efforts. The peer reviewer and public comments are addressed in the following summary and incorporated into this final rule as appropriate.

Peer Reviewer Comments

Comment (1): One peer reviewer stated that the island night lizard populations from each island should be identified as DPSs based on the following: (a) Even though the island night lizard was listed at the "species level," each of the three populations are geographically separated by miles of open sea and do not interbreed when mature, which is part of the requirement that defines a species under the Act; (b) recent (Common and Current Scientific Names of North American Amphibians, Turtles, Reptiles, & Crocodilians, Sixth Edition, 2009) and previous literature (Smith 1946, Cope 1883) identify the San Clemente and San Nicolas Island lizards as separate subspecies; and (c) evidence presented from an allozyme/karyotyping study (Bezy 1980) suggests that the three populations are each distinctive and have been separated without gene flow for at least 500,000 years, with the greatest standing variation in both allelic diversity and color pattern (a phenotypic marker) of the three populations being found in the San Nicolas population. Additionally, the peer reviewer noted that San Nicolas Island specifically should not be delisted due to the lack of suitable habitat and small population size in comparison to the size of the island, and if there is no option for the Service to designate

San Nicolas Island as a DPS, then the island night lizard should remain a listed species throughout its range.

Our Response: Section 4 of the Act and its implementing regulations (50 CFR part 424) set forth the procedures for listing species, reclassifying species, or removing species from listed status. "Species" is defined by the Act as including any species or subspecies of fish or wildlife or plants, and any DPS of fish or wildlife that interbreeds when mature (16 U.S.C. 1532(16)). The island night lizard was federally listed at the "species" level (42 FR 40682, August 11, 1977) throughout its range. As discussed in our 90-day finding (71 FR 48900, August 22, 2006), the Navy's 2004 petition requested that we delist the island night lizard on San Clemente Island and San Nicolas Island as distinct population segments. We indicated in that finding that we would consider information as to whether island night lizard populations qualify as distinct population segments in our 12-month finding. Both our 2012 5-year review and our 12-month finding indicate that further consideration of the DPS status is not addressed due to our recommendation that the species be delisted throughout its entire range due to the amelioration of substantial threats and current management of potential threats to the species and its habitat (Service 2012a, pp. 5, 44; Service 2013; 78 FR at 7910). Accordingly, we assert that the island night lizard be removed from the Federal List of Endangered and Threatened Wildlife and not reclassified as three separate DPSs. With regard to the peer reviewer's request that the island night lizard on San Nicolas Island not be delisted, we have reviewed the status of the island night lizard on San Nicolas Island. Although the island supports the lowest numbers of lizards and percentage of suitable

habitat in comparison to the island's size, threats have been ameliorated or are currently managed such that the species no longer meets the definition of threatened or endangered.

Comment (2): One peer reviewer noted that the use of habitat as a surrogate for a determination of lizard population health is inadequate until at least one additional direct population assessment is completed for each island to test the validity of habitat as a surrogate.

Our Response: We use the best scientific and commercial information available in the decision-making process. In many cases, the biology of the listed species makes it difficult to detect or monitor individuals, and, in those situations, evaluating a surrogate such as habitat is the most reasonable and meaningful measure of assessing listed species. For the island night lizard, the best available scientific information indicates that it is strongly correlated with vegetation dominated by the presence of *Lycium californicum* and *Opuntia* subsp. habitats (high-quality habitats) (see Distribution and Habitat above). Additionally, this species is sedentary and reclusive, and it is difficult to survey in those high-quality habitats without destroying the habitat. Currently, the best scientific information available indicates that island night lizards within these high-quality habitats number in the millions on San Clemente Island and tens of thousands on San Nicolas and Santa Barbara Islands (see *Population Density and Abundance* in the proposed rule (78 FR 7908)). Considering all these factors, we contend that the use of high-quality habitat as a surrogate for island night lizard population health is appropriate.

Comment (3): Three peer reviewers pointed out that the header "Estimated Population (millions)" in Table 1 of the proposed rule is incorrect as the populations on San Nicolas and Santa Barbara islands exist only in the thousands.

Our Response: We appreciate the peer reviewers' recommendation and agree that the table mistakenly represents the populations as "millions." This table now reflects the correct population numbers for each island in Table 1 (see **Summary of Changes from Proposed Rule** above).

Comment (4): One peer reviewer suggested that to better compare the status among the three island populations, a table should be added to the final rule that displays density of lizards per island size (number of lizards per total island acre), density of lizards in high-quality habitat (number of lizards per high-quality habitat acreage), and percentage of high-quality habitat in comparison to island size.

Our Response: We appreciate the peer reviewer's suggestion; however, a table is not needed to discuss this information as there is detailed discussion of these data in the *Population Density and Abundance* section of the proposed rule (78 FR 7908), as well as detailed information identifying the number of acres per island, amount of high-quality island night lizard habitat per each island, and estimated island night lizard population on each island in Table 1 (see **Summary of Changes from Proposed Rule** above).

Comment (5): One peer reviewer stated that the major threat to island night lizards on San Nicolas Island is the lack of current suitable habitat on the island and that this threat has not been ameliorated. Additionally, although the Navy plans to create a nursery to assist in the restoration of native habitat, the nursery will not be a large operation, and, although it will assist in the creation of additional habitat for the island night lizard, it will not be able to restore habitat on the island to its historical state.

Our Response: The lack of current suitable habitat is not considered a substantial threat to the island night lizard on San Nicolas Island. Since listing, mapping precision and differing survey methodologies have resulted in different estimates of high-quality island night lizard habitat (Fellers *et al.* 1998, p. 46; Junak 2003, p. 7). However, the Service has determined that high-quality island night lizard habitat is stable and, with habitat restoration, removal of all nonnative feral grazers, and management efforts and policies to prevent the reintroduction of nonnative feral grazers, is likely increasing on San Nicolas Island (Navy 2005, p. 3; Service 2006, p. 12; 78 FR 7908, p. 7919). The Navy completed development of a nursery and is propagating native plants to restore native habitat and counter the negative impacts to the habitat by nonnative feral grazers. These efforts include growing and outplanting of native vegetation to assist in erosion management and to improve the quality of habitat on the island, including that utilized by the island night lizard (Ruane 2013a, pers. comm.; Vartanian 2013, pers. comm.; Hoyer 2013, pers. comm.). Although San Nicolas Island has the least amount of island night lizard habitat of the three inhabited islands, the best available scientific and commercial information indicates that island night lizard high-quality habitat is slowly recovering

(Service 2012a). The Navy asserts the nursery operation is in its initial stages and, although there are no immediate plans to expand the nursery, the Navy does intend to expand the nursery to increase production and outplanting of native plants, including those plants that comprise low- to moderate- and high-quality island night lizard habitat in the future (Vartanian 2013, pers. comm.)

Comment (6): One peer reviewer commented that, throughout the proposed rule, we state that there has been no change in the amount of island night lizard habitat on San Clemente Island; however, we also note a declining trend of approximately 6 percent for *L. californicum* and approximately 10 percent for *Opuntia* ssp. has occurred. The reviewer stated that this decline is cause for concern because if this decline in habitat is extrapolated to the island night lizard population, it results in a decline of 3.4 million lizards on the island. The reviewer also noted that relating this decline in habitat to higher rainfall amounts in the baseline year (1992) compared to the last year (2008) is speculative.

Our Response: We note that the decline in *L. californicum* and *Opuntia* ssp. habitat on San Clemente Island is in percent cover and not total acreage, and that these surveys were conducted at only 4 sites for *L. californicum* and 10 sites for *Opuntia* ssp.; thus, this observed trend in percent cover is based on a small sample size that is not island-wide. We are aware that the island night lizard population of 21.3 million lizards was determined through correlating lizard densities in these habitats and extrapolating the densities across the island, but we do not agree with the peer reviewer that a decline in

percent cover of these habitats at a few specific locations would lead to an overall island-wide loss of 3.4 million lizards because the correlation of lizard densities was based on quantity of habitat and not percent cover of habitat. Additionally, annual forb cover is closely correlated with rainfall, and annual forbs are members of both *L. californicum* and *Opuntia* ssp. habitats on San Clemente Island. Therefore, we find it reasonable that the higher rainfall reported in the baseline years (1991–1993) may account for higher percent cover, compared to lower percent cover observed after conditions of lower rainfall in 2008. Finally, although not mentioned in the proposed rule, the long-term assessment also found that there was little to no change in overall percent frequency of *L. californicum* and *Opuntia* ssp. (Tierra Data 2010, pp. 94–97).

Comment (7): One peer reviewer stated that the Navy should consider establishing an INLMA on San Nicolas Island to show long-term commitment to the island night lizard's protection as suggested in the Recovery Plan.

Our Response: We agree with the peer reviewer's comment and are suggesting in the post-delisting monitoring plan that the Navy establish an INLMA on San Nicolas Island in areas containing the highest densities of island night lizards (as recommended in the Recovery Plan (Service 1984, pp. 111, 125)).

Comment (8): Two peer reviewers commented that island night lizards on San Nicolas Island are being collected at one sample site, and that the entire sampling

population at that site has disappeared due to this collection and should be identified as a threat to the species.

Our Response: We appreciate these peer reviewers' comments and have incorporated a discussion of this information in this final rule (see *Factor B: Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*).

Comment (9): One peer reviewer noted that there appears to be an inconsistency in the proposed rule when identifying habitat areas that harbor the highest densities of island night lizards. Specifically, the proposed rule states that the highest densities of island night lizards are found in *L. californicum* and *Opuntia* spp. habitats, while the same statement is made of the cobble and driftwood habitat found on San Nicolas Island.

Our Response: We modified language in this final rule (see Distribution and Habitat above) to clarify that, although the majority of highest densities of island night lizards are found in *L. californicum* and *Opuntia* spp. habitats throughout the species' range, a small amount of unique habitat on San Nicolas Island made of cobble and driftwood supports the highest density of island night lizards on that island.

Comment (10): One peer reviewer noted that mixed-shrub habitat supports a self-sustaining population of island night lizards on San Nicolas Island although densities are much lower than in high-quality habitat.

Our Response: We appreciate the peer reviewer's correction of this information and have added a statement in this final rule (see **Changes from the Proposed Rule** above) to reflect this change.

Comment (11): One peer reviewer questioned whether erosion control efforts were being implemented on San Nicolas Island.

Our Response: In response to this comment, we reviewed the Navy's soils conservation management strategy. The Navy's INRMP states that the Navy's soils conservation management strategy is to "…effectively implement best management practices to prevent and control soil erosion." (Navy 2010, p. 4.10). Additionally, as documented through our communications with Navy personnel (Ruane 2013d, pers. comm.), they continue to implement best management practices to promote soil conservation and prevent and control soil erosion. Based on our review, there is no indication that the Navy is not implementing actions and best management practices to prevent and control erosion. Accordingly, we conclude that erosion control efforts are being implemented on San Nicolas Island and such efforts will continue in the future.

Comment (12): One peer reviewer noted that, although the southern alligator lizard is not likely a threat to the island night lizard, there is no specific research to support the Service's claim that the southern alligator lizard is not a threat at this time.

Our Response: Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or threatened species must be made solely on the basis of the best scientific and commercial data available. We agree with the peer reviewer that no specific research has been conducted to study the potential effects that the southern alligator lizard might have on island night lizards. However, there is also no information to indicate that southern alligator lizards are a threat to the island night lizard or its habitat. Therefore, we do not currently consider the southern alligator lizard a threat to the island night lizard or its habitat.

Public Comments

Comment (13): One commenter stated that the island night lizard should remain on the Federal List of Endangered and Threatened Wildlife because of overwhelming threats to the species, such as climate change (including sea level rise and ocean acidification) and land use and development.

Our Response: The Service reviews the best scientific and commercial information available when conducting a threats analysis. In considering what factors might constitute a threat, we must look beyond the mere exposure of the species to the factor to determine whether the exposure causes actual impacts to the species. The mere identification of factors that could impact a species negatively is not sufficient to compel a finding that listing (or maintaining a currently listed species on the Federal Lists of Endangered or Threatened Wildlife or Plants) is appropriate; we require evidence that

these factors are operative threats that act on the species to the point that the species meets the definition of endangered or threatened under the Act.

In the proposed rule to delist the island night lizard (78 FR 7908), we reviewed numerous journal articles that examined models of projected sea level rise by the end of the twenty-first century (Cayan *et al.* 2008, p. S62; PRBO 2011, p. 41). Based on this review, available data do not indicate that a substantial rise in sea level would affect the island night lizard or its habitat (Service 2013, p. 7926). The commenter did not provide, nor is there available, information that suggests that ocean acidification would be a threat to the terrestrial island night lizard. We also reviewed the current land use and development practices by the Navy and NPS on all three islands inhabited by island night lizards. While land use and development is a concern on Santa Clemente and San Nicolas islands due to Navy activity, the amount, quality, and distribution of habitat together with avoidance measures implemented by the Navy reduce the potential impact to the species (Service 2013, pp. 7921–7922), and we expect this trend to continue in the future, even with delisting. Land use and development on Santa Barbara Island is not of concern. We therefore continue to conclude that land use and development are not substantial threats to the species.

Comment (14): One commenter noted that although climate change, and specifically long-lasting droughts, could cause a decline in birth rates of the island night lizard, the commenter was still in favor of delisting because of future post-delisting monitoring efforts.

Our Response: The Service appreciates the commenter's concern and understands the cyclical nature of birth rates depending on annual rainfall (as described in in the Life History and Biology section of the proposed rule) (78 FR 7908, 7911). Through post-delisting monitoring efforts to monitor recruitment, we will be monitoring this concern and have identified triggers in the post-delisting monitoring plan to indicate when a decline in birth rates may warrant additional management efforts to address the concern.

Comment (15): One commenter noted that, although the Navy petitioned the Service to delist the island night lizard and conducted most of the studies that have helped support delisting, the studies were likely unbiased and provided legitimate information for removing the species from the List.

Our Response: We appreciate the commenter's acknowledgement of the Navy's work and commitments to island night lizard conservation. The Navy has worked cooperatively with us to reduce threats (see **Summary of Factors Affecting the Species** in the proposed rule (78 FR 7908)) to the island night lizard on San Clemente and San Nicolas islands, and we expect to continue coordinating with them throughout the post-delisting monitoring process to conduct monitoring efforts as identified in the Final Post-delisting Monitoring Plan and through implementation of their INRMPs.

Summary of Factors Affecting the Species

Section 4 of the Act and its implementing regulations (50 CFR part 424) set forth procedures for listing species, reclassifying species, or removing species from listed status. "Species" is defined by the Act as including any species or subspecies of fish or wildlife or plants, and any distinct vertebrate population segment of any species of vertebrate fish or wildlife which interbreeds when mature (16 U.S.C. 1532(16)). A species may be determined to be an endangered or threatened species because of any one or a combination of the five factors described in section 4(a)(1) of the Act: (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. A species may be reclassified on the same basis.

Determining whether the status of a species has improved to the point that it can be delisted or downlisted requires consideration of whether the species is endangered or threatened because of the same five categories of threats specified in section 4(a)(1) of the Act. For species that are already listed as endangered or threatened, this analysis of threats is an evaluation of both the threats currently facing the species and the threats that are reasonably likely to affect the species in the foreseeable future following the delisting or downlisting and the removal or reduction of the Act's protections.

A species is an "endangered species" for the purposes of the Act if it is in danger

of extinction throughout all or a significant portion of its range, and is a "threatened species" if it is likely to become endangered in the foreseeable future throughout all or a significant portion of its range. The word "range" in the significant portion of its range phrase refers to the range in which the species currently exists at the time of this status review. For the purposes of this analysis, we first evaluate the status of the species throughout all its range, then consider whether the species is in danger of extinction or likely to become so in any significant portion of its range.

Factor A: The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range.

At the time of listing (42 FR 40682, August 11, 1977), the present or threatened destruction, modification, or curtailment of habitat or range was identified as a factor affecting island night lizards on San Clemente, San Nicolas, and Santa Barbara Islands. Threats attributed to this factor included the introduction of nonnative herbivores and the continuing negative effects of overgrazing on the native vegetation, including those plants identified as island night lizard habitat (42 FR at 40683–40684). The introduction of nonnative plant species was also discussed in the listing rule (42 FR at 40684), although under *Factor E*. Since listing, and as identified in the 2006 5-year review of the island night lizard (Service 2006, pp. 10–24), threats from nonnative plants, land use or development, and fire also were considered potential threats to island night lizard habitat and are discussed under *Factor A*. The 2012 5-year review and the proposed delisting rule addressed the potential threat of erosion to island night lizard habitat or range under

Factor A (Service 2012a, pp. 26–27; 78 FR 7908, 7918–7927), and thus it is also included in this discussion. Additionally, we include discussion on potential impacts of climate change to habitat under *Factor A* (as well as *Factor E* as it relates to impacts to individuals of the species itself).

Nonnative Animals

At listing, we determined that overgrazing by introduced, nonnative herbivores was a threat to island night lizard habitat on all occupied islands throughout the species' range (42 FR 40682, 40683–40684). Nonnative herbivores were introduced to San Clemente, San Nicolas, and Santa Barbara Islands during the mid-1800s to the mid-1900s, resulting in the degradation of island night lizard habitat (42 FR at 40682–40683; Navy 2002, pp. 3.34–3.35; Navy 2005, p. 7). In both the 2006 and 2012 5-year reviews, as well as the proposed delisting rule, we reported that all nonnative herbivores had been removed from these islands (Service 2006, pp. 11–12; Service 2012a, p. 19; 78 FR 7908, 7919). We also concluded in those documents that habitat destruction or modification from the introduction of nonnative herbivores was no longer a threat to the species now or likely to become a threat in the future, due to ongoing management efforts conducted by the Navy on San Clemente and San Nicolas Islands, and by the NPS on Santa Barbara Island (Service 2006, pp. 11–12; Service 2012a, p. 19; 78 FR at 7919).

No new information indicates that there has been a reintroduction of nonnative animals to San Clemente, San Nicolas, or Santa Barbara Islands, or that nonnative

animals have become a threat to island night lizard habitat on the islands since publication of the proposed delisting rule. See the proposed rule to delist the island night lizard for a detailed discussion of the historical land use by nonnative animals on all three islands, ongoing actions to prevent the reintroduction of nonnative animals to the three islands, and ongoing revegetation efforts to restore native habitat on all three islands (78 FR 7908, 7918–7919).

San Clemente Island

The Navy continues to implement management policies to eliminate the possible reintroduction of nonnative animals to San Clemente Island. Additionally, the Navy continues to restore native vegetation, including plant species identified as island night lizard habitat to San Clemente Island. In 2012, the Navy placed 1,124 native plants at three different locations on San Clemente Island (Navy 2013a, p. 17). Of the 1,124 native plants outplanted, 104 consisted of *Artemisia* spp., 37 consisted of *Constancea nevinii*, and 15 consisted of *Eriogonum giganteum*, which provide low- to moderate-quality habitat for the island night lizard (Navy 2013a, pp. 12–13). Therefore, due to ongoing management and restoration efforts conducted by the Navy, we continue to conclude that habitat destruction or modification from the introduction of nonnative herbivores is no longer a threat to island night lizard habitat on San Clemente Island, nor is it likely to become a threat in the future.

San Nicolas Island

The Navy continues to implement management policies to eliminate the possible reintroduction of nonnative animals to San Nicolas Island. Additionally, in 2012, the Navy completed development of a nursery on the island to grow and outplant native plants to restore native habitat and assist in erosion control (Ruane 2013a, pers. comm.). To date, the Navy has placed approximately 1,300 plants on the western side of San Nicolas Island (Vartanian 2013, pers. comm.) where island night lizard habitat is limited. Of the 1,300 native plants species outplanted, there were 780 *Atriplex californica*, 32 *Calystegia macrostegia*, and 332 *Isocoma menziesii* that provide low- to moderate-quality for the island night lizard (Vartanian 2013, pers. comm.; Navy 2013a, p. 13). Additionally, the Navy has begun to outplant Opuntia spp. on San Nicolas Island, which provides high-quality habitat for the island night lizard (Ruane 2013a, pers. comm.). Therefore, due to ongoing management and restoration efforts conducted by the Navy, we continue to conclude that habitat destruction or modification from the introduction of nonnative herbivores is no longer a threat to island night lizard habitat on San Nicolas Island, nor is it likely to become a threat in the future.

Santa Barbara Island and Sutil Island

Since 2007, the MSRP has conducted native plant restoration projects on Santa Barbara Island (Harvey and Barnes 2009, pp. 15–22) to benefit Xantus's Murrelet (*Synthiliboramphus hypoleucus*) and Cassin's Auklet (*Ptychoramphus aleuticus*) (Harvey and Barnes 2009, p. 4). Many of the native plants used in these restoration projects also

provide island night lizard habitat, including low- to moderate-quality habitat (*Coreopsis gigantea*, *Eriogonum giganteum* var. *compactum*, *Deinandra clementina*, *Constancea nevinii*, *Artemisia nesiotica* (sage), and *Baccharis pilularis*) and high-quality habitat (*Lycium californicum*) (Fellers and Drost 1991, p. 34; Fellers *et al.* 1998, pp. 11–12; Harvey and Barnes 2009, p. 7; Mautz 2001a, p. 23; Navy 2005, p. 30). Since 2007, the MSRP has restored approximately 5 ac (2 ha) of native habitat on Santa Barbara Island, consisting of 19,560 native plants (Harvey 2013, pers. comm.).

We expect the amount and distribution of habitat to remain relatively stable in the future, because the major threat to habitat (nonnative herbivores) has been eliminated and the NPS has an active habitat management and restoration program. The NPS also continues to implement management policies to eliminate the possible reintroduction of nonnative animals to Santa Barbara Island. Therefore, we continue to conclude that habitat destruction or modification from the introduction of nonnative herbivores is no longer a threat to island night lizard habitat on Santa Barbara Island, nor is it likely to become a threat in the future.

Nonnative Plants

At listing, the introduction of nonnative plants was noted as having adversely impacted all California Channel Islands (42 FR 40682, 40684, August 11, 1977). While the introduction of nonnative herbivores impacted much of the native vegetation, nonnative plants introduced to the islands have also modified habitat for the island night

lizard. In the 2006 5-year review, we noted that nonnative plant species may alter ecosystem dynamics by changing soil nitrogen cycling, and may compete with native plants for space or other resources such as light, water, and nutrients (Service 2006, p. 12). Nonnative plant species can also alter ecological processes such as fire frequency that could otherwise affect the persistence of the island night lizard (Navy 2002, p. 3.114). Low densities of island night lizards observed in some of the nonnative plant communities suggest that modification of the native plant communities can reduce the available resources for this taxon. The 2006 and 2012 5-year reviews and the proposed delisting rule for the island night lizard found that habitat destruction or modification from the introduction of nonnative plants is of potential concern, but due to current management and preventative actions implemented on all occupied islands, is not a substantial threat to the species throughout its range now and in the future (Service 2006, p. 13; Service 2012a, pp. 20–22; 78 FR 7908, 7919–7921).

No new information indicates that nonnative plants have become a threat to island night lizard habitat on San Clemente, San Nicolas, or Santa Barbara Islands. Although nonnative plants will continue to pose a risk to island night lizard habitat, the Navy and NPS have taken steps to curtail the introduction and spread of nonnative plants, and such steps are expected to continue into the future. See the proposed delisting rule for a detailed discussion on nonnative plants and ongoing management actions implemented by the Navy on San Clemente and San Nicolas Islands, and NPS on Santa Barbara Island to prevent the further introduction of nonnative plants (78 FR 7908, 7919–7921).

San Clemente Island

The Navy continues to implement management policies to eliminate the possible reintroduction of nonnative plants and actively manages existing nonnative plant species on San Clemente Island. For example, in 2012, the Navy treated 14,597 nonnative plants (consisting of 13 different nonnative species) throughout the range of the island night lizard on San Clemente Island (Navy 2013a, pp. 22–25). Therefore, we continue to conclude that, given the current and anticipated levels of management, habitat destruction or modification from the introduction of nonnative plants is no longer a threat to island night lizard habitat on San Clemente Island, nor is it likely to become a threat in the future.

San Nicolas Island

The Navy continues to implement management policies to eliminate the possible reintroduction of nonnative plants and actively manages existing nonnative plant species on San Nicolas Island. Since 2012, the Navy has continued the annual treatment and monitoring of select nonnative species on San Nicolas Island, such as *Brassica tournefortii* (Saharan mustard) (Ruane 2013b, pers. comm.). From 2012 to 2013, the Navy conducted reconnaissance efforts to identify *B. tournefortii* on approximately 86 ac (34.8 ha) of San Nicolas Island (Navy 2013a, p. 5), and applied herbicide treatments accordingly. Per our coordination efforts with the Navy, we anticipate they will continue nonnative plant removal treatments into the future. Therefore, we continue to conclude

that habitat destruction or modification from the introduction of nonnative plants is not a threat to island night lizard habitat on San Nicolas Island, nor is it likely to become a threat in the future.

Santa Barbara Island and Sutil Island

The NPS continues to propagate native species at their greenhouse, including those found within low- to moderate-quality island night lizard habitat (such as *Coreopsis gigantea*, *Eriogonum giganteum* var. *compactum*, *Deinandra clementina*, *Constancea nevinii*, *Artemisia nesiotica*, *Baccharis pilularis*), and high-quality habitat (such as *Lycium californicum*) (Fellers and Drost 1991, p. 34; Fellers *et al.* 1998, pp. 11–12; Mautz 2001a, p. 23, Navy 2005, p. 30). From 2007 to 2012, NPS planted 19,560 native plants on Santa Barbara Island, some of which as discussed above provide habitat for island night lizards (Harvey 2013, pers. comm.; Little 2011, pers. obs.). To date, approximately 5 ac (2 ha) of native habitat have been restored to benefit seabirds, including some which also benefit the island night lizard, on Santa Barbara Island (Little 2011, pers. obs.; Harvey 2013, pers. comm.). Additionally, from 2007 to 2011, the NPS in coordination with the MSRP conducted nonnative plant species removal from Santa Barbara Island on 4.5 ac (1.8 ha) (Harvey 2012, pers. comm.).

The NPS also drafted a General Management Plan for the Channel Islands, which addresses the continuing effort to monitor and restore native vegetation on Santa Barbara Island (NPS 2013, entire). This draft General Management Plan continues to emphasize

the eradication of all nonnative floras from the island (NPS 2013, pp. 50, 83). Although this plan has yet to be finalized, due to current and future management efforts described above, we continue to conclude that habitat destruction or modification from the introduction of nonnative herbivores is no longer a threat to island night lizard habitat on Santa Barbara and Sutil Islands, nor is it likely to become a threat in the future.

Land Use and Development

At listing (42 FR 40682, August 11, 1977), the destruction or modification of habitat from land use and development was not identified as a threat to the island night lizard. While development activities can reduce available habitat for island night lizards, potentially resulting in the direct loss of individuals, the 2006 and 2012 island night lizard 5-year reviews and the proposed delisting rule concluded that land use and development is not a substantial threat to the species or its habitat throughout the species' range (Service 2006, p. 18; Service 2012a, pp. 22–24; 78 FR 7908, 7921–7922).

No new information indicates that land use and development has become a threat to the island night lizard or its habitat on San Clemente, San Nicolas, or Santa Barbara Islands. See the proposed delisting rule for a detailed discussion on the historical and current land use and development practices by the Navy on San Clemente and San Nicolas Islands, and NPS on Santa Barbara Island (78 FR 7908, 7921–7922).

San Clemente Island

While island night lizard habitat loss and disturbance occur on San Clemente Island as a result of military land use and development projects (such as training and testing activities), the Navy continues to conduct adequate management efforts, such as nonnative species removal, native plant growth and outplantings, and erosion control (Navy 2002, pp. 3.115–3.1156; Navy 2013b, pp. 35–54, 113–122; Munson 2013, pers. comm.) to minimize or avoid the effects on the island night lizard and its habitat, and we expect these efforts to continue even with delisting. Therefore, we continue to conclude that habitat destruction or modification from land use and development is not a substantial threat to the island night lizard or its habitat on San Clemente Island, nor is it likely to become a threat in the future.

San Nicolas Island

Like San Clemente Island, island night lizard habitat loss and disturbance occur on San Nicolas Island as a result of military land use and development projects (such as training and testing activities). However, the Navy continues to conduct adequate management efforts to minimize the effects on the island night lizard and its habitat. For example, the Navy has developed a plant nursery on San Nicolas Island and is currently cultivating *Opuntia littoralis* and is in the process of cultivating *Lycium californicum* to outplant surrounding areas affected by the creation of a wind energy project (Ruane 2013a, pers. comm.; Vartanian 2013, pers. comm.). We expect these efforts to continue even with delisting. In addition, high-quality habitat on San Nicolas Island is distributed

in areas that are currently not developed or proposed for use or development (Navy 2010, p. D-27; Ruane 2013e, pers. comm.). Therefore, we continue to conclude that land use and development is not a substantial threat to the island night lizard or its habitat on San Nicolas Island, nor is it likely to become a threat in the future.

Santa Barbara Island and Sutil Island

The current status of Santa Barbara Island as a unit of the National Park System protects the island night lizard and its habitat from impacts related to future land use or development. Currently, other than recreational camping, land is little used on Santa Barbara Island, and this land use pattern is not expected to change. As such, we continue to conclude that land use and development are not a substantial threat to the island night lizard or its habitat on Santa Barbara and Sutil Islands, nor are likely to become so in the future.

Fire

At listing (42 FR 40682, August 11, 1977), fire was not identified as a threat to the island night lizard or its habitat. Fire would normally be a rare occurrence on San Clemente, San Nicolas, and Santa Barbara Islands, but human use and occupancy of the islands have increased the incidence of wildfires on all three islands to varying degrees. Where fires do occur, they may destroy island night lizard habitat, which reduces cover that assists with thermoregulation, increases exposure to predators, creates a short-term

reduction in prey availability, and potentially harms individuals (Mautz 2001, p. 27; Service 2006, p. 13; 78 FR 7908, 7922).

San Clemente and San Nicolas Islands have an increased potential for fire due to military activities and the presence of nonnative, annual grasses, which increase the amount of flammable fuels (Service 2006, pp. 13–15; Service 2012a, pp. 23–26; 78 FR 7908, 7927). Based on historical records and current land use, high fire frequency on Santa Barbara Island is an unlikely occurrence that would be limited to ignitions caused by human negligence. Although fire is a potential threat on all three islands, ongoing fire management policies, plans, and actions being implemented through the Navy's INRMPs, fire management plans, and NPS's general management policies have helped to avoid or minimize the potential risk of fire. See the proposed delisting rule for a detailed discussion on the historical effects of fire and current fire management practices by the Navy on San Clemente and San Nicolas Islands, and NPS on Santa Barbara Island (78 FR at 7922–7923). No new information indicates that fire has become a threat to the island night lizard or its habitat on San Clemente, San Nicolas, and Santa Barbara Islands since publication of the proposed delisting rule.

San Clemente Island

As mentioned above, fires do occur on San Clemente Island due to military related activities. In 2012, 15 fires burned approximately 3,500 ac (1,416 ha) of land on San Clemente Island (Navy 2012, pp. 27–35). Of these 15 fires, 9 of them burned a total

of 1.8 ac (0.7 ha) of moderate- to high-quality island night lizard habitat on the northern end of the island outside of the INLMA (Navy 2012, pp. 27–29). All of the nine fires burned with light to moderate intensity, which indicates that the effects of the fires on the shrubs composing moderate- to high-quality island night lizard habitat were classified as burned to singed, with some to many of these shrubs resprouting and recovering (Navy 2012, pp. 26, 28–29). Five fires burned 1,253 ac (507 ha) of low- to moderate-quality island night lizard habitat outside of the INLMA in the southern portion of the island classified as the Shore Bombardment Area where live-fire training (e.g., artillery and mortars) occurs (Navy 2002, p. 2.4; Navy 2012, pp. 27, 31–35). Four of these five fires burned 1,222 ac (495 ha) lightly to moderately, including both low- and moderate-quality island night lizard grassland habitat, while one fire only singed approximately 31 ac (13 ha) of high-quality island night lizard habitat (Navy 2012, pp. 26–27, 31–35). Effects on shrubs within these five fires varied (from not affected, to singed, to burned) with some to many of these shrubs resprouting and recovering (Navy 2012, pp. 26–27, 31–35). Effects on herbs and grasses were also noted; within these five fires herbs and grasses were burned to ash with some resprouting (Navy 2012, pp. 26–27, 31–35). The largest fire lightly burned 2,146 ac (869 ha) of low-quality island night lizard grassland habitat outside of the INLMA (Navy 2012, pp. 27, 29).

Although these fires did burn some moderate- to high-quality island night lizard habitat, all of the fires occurred outside of the INLMA where the majority of high-density island night lizard habitat occurs on San Clemente Island. Additionally, none of the moderate- to high-quality habitat burned to ash, and nearly all had signs of resprouting

(Navy 2012, pp. 26–35). Therefore, we continue to conclude that fire is not a substantial threat to the island night lizard or its habitat, nor is it likely to become a threat in the future due to current fire management practices implemented through the Navy's INRMP, the amount of moderate- to high-quality island night lizard habitat, and large population of island night lizards on San Clemente Island.

San Nicolas Island

No fires occurred on San Nicolas Island in 2012 (Ruane 2013c, pers. comm.). Due to continued fire management efforts implemented through the Navy's INRMP on San Nicolas Island, we continue to conclude that fire is not a substantial threat to the island night lizard or its habitat on San Nicolas Island, nor is it likely to become a threat in the future.

Santa Barbara Island and Sutil Island

No fires occurred on Santa Barbara Island in 2012 other than permitted campfires (Rodriguez 2013b, pers. comm.), and no fires occurred on Sutil Island. Due to limited human use on the island and fire management efforts implemented through the Channel Islands National Park Fire Management Plan (NPS 2006b) (as described in the proposed delisting rule, 78 FR 7908, 7924), we continue to conclude that fire is not a substantial threat to the island night lizard or its habitat on Santa Barbara and Sutil Islands, nor is it likely to become a threat in the future.

Erosion

Although erosion was not identified as a threat to the island night lizard or its habitat at listing (42 FR 40682, August 11, 1977), the impact from erosion has since been identified as a general threat to the habitats on the Channel Islands, including San Clemente, San Nicolas, and Santa Barbara Islands (Navy 2002, pp. 3.58–3.68; NPS 2006, p. 62; Navy 2010, pp. 3.52–3.54). However, the 2006 and 2012 5-year reviews and the proposed delisting rule concluded that erosion is not a substantial threat to island night lizard habitat on any of the occupied islands (Service 2006, pp. 12, 16; Service 2012a, pp. 28–29; 78 FR 7908, 7924–7925).

No new information indicates that erosion has become a threat to island night lizard habitat on San Clemente, San Nicolas, and Santa Barbara Islands since publication of the proposed delisting rule. Erosion caused by ongoing military activities on San Clemente and San Nicolas Islands currently affects island night lizard habitat; however, impacts are primarily a consequence of the historical introduction of nonnative herbivores (which no longer inhabit any of the islands) and land use operations. Ongoing management efforts are currently implemented by the Navy to minimize, reduce, and restore areas where erosion has occurred through implementation of best management practices and erosion control plans. On Santa Barbara Island, erosion from wind, wave action, and the effects of overgrazing are evident and continue to contribute to alteration of habitat; however, new sources of human-caused erosion on the island, which could

exacerbate current conditions, are minimal given the limited amount of human use on the island. See the proposed delisting rule for a more detailed discussion on the historical effects of erosion and current erosion management practices by the Navy on San Clemente and San Nicolas Islands, and NPS on Santa Barbara Island (78 FR 7908, 7924–7925).

San Clemente Island

Since publication of the proposed rule to remove the island night lizard from the List, the Navy finalized an Erosion Control Plan for San Clemente Island (Navy 2013b). Goals of the Erosion Control Plan are to minimize impacts of soil erosion within maneuver areas and to minimize offsite impacts; prevent erosion from adversely affecting sensitive resources such as federally listed or proposed species or their habitats, including the island night lizard; and prevent erosion from significantly impacting other sensitive resources including sensitive plant and wildlife species and their habitat (Navy 2013b, pp. 3, 5). The Erosion Control Plan addresses military operations associated with the Infantry Operation Area, Assault Vehicle Maneuver Areas, Artillery Maneuver Points, and Artillery Firing Points, and provides site-specific erosion control recommendations for these areas encompassing 1,123 (ac) (454 ha), all of which are occupied by the island night lizard (Navy 2013b, pp. 55–112). Erosion management within these areas addresses and includes guidelines for restriction of vehicle maneuvering when soils are wet, operator education, vegetation management, fire management, and methods for gully prevention and restoration (Navy 2013b, pp. 35–54).

Additionally, the Erosion Control Plan includes an adaptive management and monitoring plan, which provides specific measureable objectives for soil movement and plant cover within the maneuver areas; specific methods to monitor these objectives; specific targets to assess success or failure of best management practices to minimize and prevent soil erosion; and a list of potential actions to be taken if these targets are not met (Navy 2013b, pp. 113–122). Methods utilized to monitor these objectives include visual inspections, sediment monitoring, vegetation transects, soil moisture and trafficability, erosion feature mapping, and photopoints (Navy 2013b, pp. 113–120). Therefore, we continue to conclude that erosion is not a substantial threat to island night lizard habitat on San Clemente Island, nor is it likely to become a threat in the future.

San Nicolas Island

The Navy has continued to implement measures to restore areas that have been affected by erosion. In 2012, the Navy completed development of a nursery on the island to grow and outplant native plants to restore native habitat and assist in erosion control on San Nicolas Island (Ruane 2013a, pers. comm.). To date, approximately 1,300 plants have been planted on the western side of San Nicolas Island (Vartanian 2013, pers. comm.). These plants include *Abronia* ssp., *Acmispon argophyllus* var. *argenteus*, *Distichlis spicata*, and other plants that provide low- to moderate-quality habitat conditions for the island night lizard, such as *Atriplex californica*, *Calystegia macrostegia*, and *Isocoma menziesii* (Vartanian 2013, pers. comm.). Additionally, the

Navy continues to implement BMPs to prevent and minimize erosion on San Nicolas Island. Therefore, based on the best available information, we continue to conclude that erosion is not a substantial threat to island night lizard habitat on San Nicolas Island, nor is it likely to become a substantial threat in the future.

Santa Barbara Island and Sutil Island

Currently, NPS management policies dictate that the NPS will actively preserve soil resources, prevent unnatural erosion, and prevent or minimize potentially irreversible impacts on soil (NPS 2006a, p. 56). Therefore, based on the best available information about current erosion levels and NPS efforts to preserve soil resources, we continue to conclude that erosion is not a substantial threat to island night lizard habitat on Santa Barbara and Sutil Islands, nor is it likely to become a threat in the future.

Climate Change

At the time of listing (42 FR 40682, August 11, 1977), we did not find climate change to be a threat to the island night lizard or its habitat. The 2006 and 2012 5-year reviews and the proposed delisting rule concluded that generally, climate change is predicted to result in warmer air temperatures, lower rainfall amounts, and rising sea levels; however, it is currently unknown how climate change will specifically affect island night lizard habitat on San Clemente, San Nicolas, and Santa Barbara Islands (Service 2006, p. 24; Service 2012a, pp. 38–39; 78 FR 7908, 7925–7926). The island

night lizard may be more susceptible to natural catastrophes on San Nicolas and Santa Barbara Islands because of its restricted distribution on those islands, while its greater numbers and distribution on San Clemente Island may indicate the island night lizard is less susceptible to stochastic events on that island. Regardless, we expect that the island night lizard's susceptibility to climate change is somewhat reduced by its ability to use varying habitat types and by its broad generalist diet. See the proposed delisting rule for a more detailed discussion on climate change (78 FR at 7925–7926).

Since publication of the proposed delisting rule (78 FR 7908), no new information indicates that climate change has become a substantial threat to island night lizard habitat on San Clemente, San Nicolas, or Santa Barbara Islands, or that it will become a substantial threat to habitat in the future. Therefore, we continue to conclude that climate change is not a substantial threat to island night lizard habitat throughout the species' range, nor is it likely to become a threat in the future.

Factor A Summary

Since publication of the proposed delisting rule (78 FR 7908), no new information indicates that loss and modification of island night lizard habitat by nonnative herbivores, nonnative plants, land use and development, fire, erosion, and climate change have become a substantial threat to the island night lizard or its habitat on San Clemente, San Nicolas, and Santa Barbara Islands. The Navy on San Clemente and San Nicolas Islands continues to monitor for these concerns and conduct management efforts through

implementation of INRMPs and management plans on the two islands to ensure that these concerns do not threaten the island night lizard or its habitat now or in the future, and we expect these efforts to continue in the future. Additionally, the NPS on Santa Barbara Island (and adjacent Sutil Island) continues to monitor for these concerns and conducts management efforts through implementation of the Organic Act and management plans that avoid or minimize these threats to the island night lizard or its habitat now or in the future.

Therefore, we continue to conclude that habitat destruction or modification from introduction of nonnative taxa, land use and development, fire, erosion, and climate change do not pose a substantial threat to the island night lizard or its habitat on San Clemente, San Nicolas, and Santa Barbara Islands (including Sutil Island) now, nor are they likely to become threats in the future.

Factor B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes.

Overutilization for commercial, recreational, scientific, or educational purposes was not identified as a threat to the island night lizard at listing (42 FR 40682, August 11, 1977). The 2006 and 2012 5-year reviews and the proposed delisting rule did not identify overutilization for commercial, recreational, scientific, or educational purposes as a threat to the island night lizard (Service 2006, p. 18; Service 2012a, p. 28; 78 FR 7908, 7927). Currently, island night lizards on San Clemente and San Nicolas Islands are only

captured for scientific purposes or for relocation efforts due to Navy projects in accordance with permitted activities covered by a section 10(a)(1)(A) permit under the Act. However, at the Eucalyptus sampling site on San Nicolas Island, all island night lizards have disappeared, and researchers believe their disappearance is due to unpermitted collection of the species (Fellers 2013, pers. comm.; Drost 2013, pers. comm. 2013). While we lack specific evidence indicating these lizards were collected by other persons, the loss of these individuals is of concern and should be further monitored; however, this situation is not a substantial threat to the population as a whole on San Nicolas Island.

Currently, we have issued four active section 10(a)(1)(A) permits for the island night lizard. Research activities may result in impacts to some individuals (use of pitfall traps and toe-clipping); however, they do not constitute a significant threat to the species (Service 2012a, p. 31). The Navy has been notified that collection of the island night lizard might be occurring at one site on San Nicolas Island (Fellers 2013, pers. comm.). Aside from this, capture of island night lizards for commercial or other nonpermitted activities is unlikely to occur on San Clemente or San Nicolas Islands because access to these islands is strictly limited by the Department of Defense. No available information indicates that visitors to Santa Barbara Island are actively collecting island night lizards. Although it is possible that someone visiting or working on any of the islands could collect island night lizards, based on the best available information, we have no indication that such activities are occurring.

Therefore, based on the limited number of active section 10(a)(1)(A) permits and lack of evidence that collection is occurring on either San Clemente or Santa Barbara Island, we find that overutilization for commercial, recreational, scientific, or educational purposes is not currently a substantial threat, nor is it likely to become a substantial threat to the species on San Clemente and Santa Barbara Islands in the future. Additionally, although some lizards appear to have been collected from one site on San Nicolas Island, this is not a substantial threat to the island-wide population, which numbers at approximately 15,300 lizards (Service 2012,a p. 31), and the Navy has been notified of potential unauthorized activity.

Factor C. Disease or Predation.

Disease

Disease was not identified as a threat to the island night lizard at listing (42 FR 40682, August 11, 1977), in the 2006 or 2012 5-year reviews, or in the proposed delisting rule (Service 2006, p. 19; Service 2012a, p. 29; 78 FR 7908, 7927). Additionally, no new information indicates that disease has become a threat on San Clemente, San Nicolas, or Santa Barbara Islands. Therefore, we continue to conclude that disease is not a threat to the island night lizard on any of the islands, nor is it likely to become a threat in the future.

Predation

At the time of listing (42 FR 40682, August 11, 1977), we identified predation of island night lizards as a threat to the species due to the introduction of nonnative feral cats and pigs to San Clemente Island (42 FR at 40683). The listing rule (42 FR at 40684) also indicated that the introduction of the nonnative southern alligator lizard to San Nicolas Island might pose a threat to the island night lizard through depredation or increased competition (42 FR at 40684). Currently, each island has native predators, such as foxes and raptors, but the best commercial and scientific available information does not indicate these predators are a substantial threat to the island night lizard now or in the future.

No new information indicates current native and nonnative predators on San Clemente Island, San Nicolas, and Santa Barbara Islands have become a substantial threat to the island night lizard. See the proposed delisting rule for a detailed discussion of predation and management efforts and policies implemented by the Navy on San Clemente Island and San Nicolas Island, and NPS on Santa Barbara Island, to monitor and eliminate the future introduction of nonnative predators (78 FR 7908, 7927–7928).

San Clemente Island

Since listing, nonnative predators have been identified on San Clemente Island, including feral cats, black rats, and a single gopher snake (*Pituophis catenifer*). The 2006 and 2012 5-year reviews and the proposed delisting rule concluded that predation by feral

cats was not a substantial threat due to predator management actions implemented through the Navy's INRMP and the large lizard population on the island (Service 2006, p. 19; Service 2012, p. 32; 78 FR 7908, 7928). Additionally, since the removal of the single gopher snake, no other snakes have been identified on San Clemente Island (Service 2012, p. 32). Despite our review of the best scientific and commercial information available, the information does not indicate whether or how often black rats prey upon island night lizards. Therefore, due to current predator management efforts implemented by the Navy on San Clemente Island that we expect to continue in the future, we continue to conclude that predation is not a substantial threat to the island night lizard, nor is it likely to become a threat in the future.

San Nicolas Island

The 2006 5-year review indicated that the introduction of two nonnative lizards (southern alligator lizard and side-blotched lizard) may impact island night lizards on San Nicolas Island (Service 2006, p. 20). Although the distribution of the southern alligator lizard and island night lizard on San Nicolas Island does overlap, Fellers *et al.* (2009, p. 18) noted that southern alligator lizards primarily occur in different habitats and there is no indication of negative impacts to the island night lizard. The 2012 5-year review and proposed delisting rule concluded that the two nonnative lizards were not a predation threat to the island night lizard (Service 2012a, p. 32; 78 FR 7908, 7928).

In the 2006 5-year review, we concluded that feral cat predation threatened the island night lizard due to the small lizard population and the large feral cat population on San Nicolas Island (Service 2006, p. 20). However, in 2009, the Navy began implementing a feral cat removal program and announced the successful completion of this project in February 2012 (Little 2012, pers. comm.). Based on the successful feral cat eradication efforts, we subsequently concluded in the 2012 5-year review and proposed delisting rule that feral cats were no longer a threat to the island night lizard on San Nicolas Island (Service 2012a, p. 30; 78 FR 7908, 7928). Therefore, due to current management efforts implemented by the Navy on San Nicolas Island that we expect to continue in the future, we continue to conclude that predation is not a substantial threat to the island night lizard on that island, nor is it likely to become a threat in the future.

Santa Barbara and Sutil Island

The 2006 and 2012 5-year reviews and the proposed delisting rule for the island night lizard concluded that Santa Barbara Island does not support any nonnative predators, but does support populations of native predators of the island night lizard, including burrowing owl (*Athene cunicularia*), American kestrel (*Falco sparverius*), and barn owl (*Tyto alba*) (Service 2006, p. 19; Service 2012a, p. 33; 78 FR 7908, 7928). While natural predators may pose a threat to individual island night lizards (Service 2012a, p. 33; 78 FR at 7928), they do not pose a substantial threat to the continued existence of the species on Santa Barbara Island due to the current number of lizards on the island, highly sedentary nature of the lizard, and tendency to remain under shelter

such as dense vegetation or rock, which limits their exposure to aerial predators (Service 2006, p. 19; Service 2012a, p. 33; 78 FR at 7928). To prevent future introductions of nonnative predators to Santa Barbara Island, the NPS restricts bringing any animal onto the island (NPS 2012). Therefore, due to current management efforts implemented by the NPS on Santa Barbara Island that we expect to continue in the future, we continue to conclude that predation is not a substantial threat to the island night lizard, nor is it likely to become a threat in the future.

Factor C Summary

At the time of listing (42 FR 40682, August 11, 1977), disease was not considered a threat to the island night lizard and, as discussed in further detail in the 2006 and 2012 5-year reviews as well as the proposed delisting rule (Service 2006, p. 19; Service 2012a, p. 29; 78 FR 7908, 7927), no new information indicates that disease is a threat to the island night lizard. Therefore, we continue to conclude that disease is not a threat to the island night lizard on any of the islands, nor is it likely to become a threat in the future.

At the time of listing (42 FR 40682, August 11, 1977), predation by feral cats and southern alligator lizards was considered a threat, but their impacts were not fully understood. Since listing, we have identified predation by nonnative lizards, feral cats, and black rats as a threat to the species. Recent research indicates that neither the southern alligator lizard nor the more recently introduced nonnative side-blotched lizard negatively impact the island night lizard on San Nicolas Island. Additionally, in 2010,

the Navy successfully completed a feral cat removal program on San Nicolas Island. The Navy has also implemented efforts to control black rats and feral cats on San Clemente Island as part of the recovery efforts for the San Clemente loggerhead shrike and San Clemente Island sage sparrow. Though black rats and feral cats may affect individual island night lizards, they do not currently pose a substantial threat to the species on San Clemente Island. Since the identification and removal of a single gopher snake from San Clemente, no other snakes have been identified on any of the occupied islands. No nonnative predators of the island night lizard exist on Santa Barbara Island, and native predators on Santa Barbara Island do not currently pose a threat to the species existence. Also, both the Navy and NPS have policies in place to control the introduction of potential predators, and such efforts are expected to continue in the future. Therefore, as no new information indicates the predation has become a threat to the island night lizard on any of the islands, we continue to conclude that predation is not a substantial threat to the island night lizard, nor is it likely to become a threat in the future.

Factor D. Inadequacy of Existing Regulatory Mechanisms.

The inadequacy of existing regulatory mechanisms was not identified as a threat to the island night lizard at the time of listing, in the 2006 and 2012 5-year reviews, or in the proposed delisting rule. Because all islands are under Federal ownership, there are various laws, regulations, and policies administered by the Federal agencies that provide protective mechanisms for the island night lizard and its habitat that will continue after the species' delisting. Primary Federal laws that provide some benefit for the species and

its habitat absent the Act include NEPA, the Sikes Act, the Federal Noxious Weed Act, the Soil Conservation and Domestic Allotment Act, and the NPS Organic Act. Additionally, INRMPs, management plans, and policies implemented by the Navy on San Clemente and San Nicolas Island are important guiding documents that help to integrate the military's mission with natural resource protection. See the proposed delisting rule for a more detailed discussion of the existing regulatory mechanisms absent the Act conducted and implemented by the Navy and NPS that benefit the island night lizard and its habitat (78 FR 7908, 7929–7931).

No new information indicates that inadequacy of existing regulatory mechanisms is a threat to the island night lizard or its habitat on San Clemente, San Nicolas, and Santa Barbara Islands. Therefore, we continue to conclude that existing regulatory mechanisms provide adequate protection to the island night lizard and its habitat on all of the islands now and will continue to provide adequate protection in the future, even with the removal of the protections of the Act.

Factor E. Other Natural or Manmade Factors Affecting the Continued Existence of the Species.

The listing rule (42 FR 40682, August 11, 1977) states that island-adapted taxa are often detrimentally affected by accidental or intentional introduction of nonnative species. This threat was the only one attributed to Factor E for any of the seven taxa included in that rule. Because the primary effect of most nonnative taxa was related to

habitat or predation, the discussion of introduced, nonnative taxa is now included under Factor A as it relates to habitat and Factor C as it relates to predation.

The restricted distribution of the island night lizard on San Nicolas and Santa Barbara Islands makes these populations susceptible to natural catastrophes such as fires, landslides, or prolonged droughts (Service 2006, p. 24). Potential impacts and management efforts to reduce or control effects of fire and erosion to habitat are discussed under Factor A. The 2012 5-year review and proposed delisting rule discuss the potential threat of climate change and its effects on precipitation, drought, and sea level rise as it relates to the island night lizard (Service 2012a, pp. 39–41; 78 FR 7908, 7925–7926). See the proposed delisting rule for a more detailed discussion of climate change and its effects on the continued existence of island night lizards (78 FR at 7932).

Climate Change

As discussed under Factor A—Climate Change above, climate change poses a potential impact to island night lizards and their habitat based on modeling and climate change projections for southern California from various sources (Intergovernmental Panel on Climate Change 2007, PRBO 2011). Because the best available information for the region that encompasses San Clemente, San Nicolas, and Santa Barbara Islands refers only to the marine environment and not the terrestrial environment occupied by island night lizards (PRBO 2011, p. 4), we are utilizing projections made for the Southwestern California ecoregion in this threat analysis (see *Factor A*—Climate Change section above

for additional discussion on available data, climate model predictions for temperature and precipitation, and potential impacts related to island night lizard habitat).

Currently, climate modeling projections for fog (Field *et al.* 1999, pp. 21–22) and precipitation are the subject of uncertainty, with relatively little consensus concerning projections for the Southwestern California ecoregion (PRBO 2011, p. 40). Additionally and as noted above, no specific information is available related to precipitation and temperature projections specific to the terrestrial environment of the California Channel Islands. The best available data indicate that, when daily temperatures increase, lizard species spend more time in burrows or refuges and less time foraging (Sinervo *et al.* 2010, p. 894). This reduced foraging time could possibly impact growth and survival of this already highly sedentary lizard. Drought conditions also reduce the arthropod populations in the spring, reducing a food source and compounding the effects of climate change (Knowlton 1949, p. 45; Schwenkmeyer 1949, pp. 37–40; Bolger *et al*. 2000, p. 1242). Therefore, in the event of a prolonged period of warmer air temperature and lower rainfall, the island night lizard's habitat and food supply could also potentially be reduced. However, island night lizards use a variety of habitat types and have a broad generalist diet, which likely reduces the species' susceptibility to changing climate. Additionally, Sinervo *et al.* (2010, p. 898) investigated climate change impacts on Xantusidae and, though his work focused on the effects of temperature change rather than changes in rainfall, he predicted that the species' extinction risk for this family is zero through 2080. Therefore, we do not consider climate change to be a substantial threat to the island night lizard now or in the future.

Factor E Summary

Although climate change may affect the island night lizard and its habitat on all three islands, we expect that the lizard's susceptibility to climate change is somewhat reduced by its ability to use varying habitat types and by its broad generalist diet. However, the best available information does not allow us to make accurate predictions regarding the effects of climate change on the island night lizard at this time. Therefore, based on the best available information, we continue to conclude that climate change is not a substantial threat to the island night lizard on San Clemente, San Nicolas, and Santa Barbara Islands, nor is it likely to become a threat in the future.

Cumulative Effects

A species may be affected by a combination of threats. Within the preceding review of the five listing factors, we identified multiple threats that may have interrelated impacts on the island night lizard or its habitat. Fire (*Factor A)* may increase in intensity and frequency on all occupied islands if there is an abundance of nonnative plants (grasses) (*Factor A*). Similarly, across all islands occupied by the island night lizard, fire (*Factor A*) may become more frequent if climate change results in hotter and drier environmental conditions (*Factors A and E*). An increase in the frequency of fires (*Factor A*) may potentially lead to an increased risk of predation (*Factor C*) due to loss of vegetative cover for the island night lizard in burned areas. On San Clemente and San

Nicolas Islands, land use and development activities (*Factor A*) conducted by the Navy can prompt an increase in erosion (*Factor A*) and the potential for fire (*Factor A*) in island night lizard habitat. Additionally, effects from climate change, such as rising sea level in conjunction with increased storm frequency and high-tide wave action (*Factor A*), could potentially impact island night lizard habitat by accelerating erosion (*Factor A*) on all islands. Although island night lizard productivity may be reduced because of these threats, either alone or in combination, it is not easy to determine whether a specific threat is the primary threat having the greatest impact on the viability of the species, or whether it is exacerbated by, or functioning in combination with, other threats to result in cumulative or synergistic effects on the species. The Navy and NPS are actively managing for the potential threats described above to minimize impacts to the island night lizard and its habitat. It is anticipated that their continued management of these potential threats will maintain any potential impacts at a level where synergistic effects are not likely to result in a substantial impact to the island night lizard or its habitat. Therefore, we do not consider the cumulative impact of these potential threats to be substantial at this time or in the future.

Determination

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the island night lizard and its habitat, including information presented in the May 1, 1997, and March 22, 2004, petitions; comments and information received after publication of our 90-day finding (71

FR 48900, August 22, 2006); two 5-year status reviews, information available in our files; comments and information received on the proposed delisting rule, and other available published and unpublished information. We also consulted with recognized experts on the island night lizard and its habitat, and with other Federal agencies. Impacts to the island night lizard and habitat from past threats have been reduced or are being actively managed for by the Navy or NPS.

A species is an "endangered species" for purposes of the Act if it is in danger of extinction throughout all or a signification portion of its range (section 3(6) of the Act) and is a "threatened species" if it is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (section 3(20) of the Act). The Act does not define the term "foreseeable future." For purposes of this determination, we define the "foreseeable future" to be the extent to which, given the amount and substance of available data, we can anticipate events or effects or reliably extrapolate threat trends, such that reliable predictions can be made concerning the future as it relates to the status of the island night lizard.

Specifically for the island night lizard, we consider the foreseeable future to extend to 2080, which is generally the latest time period that most climate change emission scenario models use because they lose confidence beyond this point, for the purposes of the discussion below. Additionally, all three occupied islands have been under Federal ownership since the mid-1930s. The Navy will continue to manage and monitor natural resources, including the island night lizard and its habitat after the species

is delisted, through implementation of INRMPs which are revised every 5 years pursuant to the Sikes Act Improvement Act of 1997, and numerous management plans and policies that manage for nonnative species, fire, and erosion. We expect future revisions to take into account management of island night lizards and their habitat. The NPS will also continue to manage and monitor all natural resources, including the island night lizard and its habitat after the species is delisted, through implementation of management plans and policies pursuant to the NPS Organic Act. No available information indicates that ownership of any of the three islands will change in the future. Therefore, we will use the 2080 timeframe established for modelling of climate change effects as the foreseeable future for all remaining potential threats.

The reasons for listing the island night lizard as threatened (42 FR 40682, August 11, 1977) were: Habitat loss or modification through the introduction of nonnative herbivores such as feral goats and pigs on San Clemente Island; habitat modification through the introduction of nonnative plants throughout the species' range (San Clemente, San Nicolas, and Santa Barbara Islands); predation by feral cats on San Clemente Island; and competition with the southern alligator lizard on San Nicolas Island.

At the time of listing, several threats related to destruction of habitat were identified for the island night lizard on one or more of the Channel Islands. Since listing, these threats have been addressed by multiple actions through implementation of the

Navy's INRMPs and the NPS's management policies. While a variety of threats existed under Factor A, not all threats were present on all three islands.

All nonnative herbivores have been removed from San Clemente, San Nicolas, and Santa Barbara Islands, and the slow process of natural recovery of native habitat is ongoing. Additionally, restoration efforts by the Navy on San Clemente and San Nicolas Islands, and NPS on Santa Barbara Island to outplant native plant species are aiding in the recovery of native habitat and ameliorating impacts from erosion. Management actions to control, remove, or prevent introduction of nonnative plant species are also implemented on all three islands by the Navy and NPS.

Current management efforts on San Clemente and San Nicolas Islands to avoid or minimize impacts from land use and development, fire, and erosion due to military activities have resulted in reduction of threats to the island night lizard or its habitat on those islands. Land use and development is not considered a threat to the lizard or its habitat on Santa Barbara Island. Fire is also not a substantial threat to the lizard or its habitat on Santa Barbara Island due to limited human presence, current fire management policy on the island, and a fire management plan (FMP) for Channel Islands National Park (including Santa Barbara Island). Erosion resulting from historical grazing by nonnative herbivores and historical land use practices is exacerbated by current military activities. Efforts to control these sources of erosion on San Clemente and San Nicolas Islands are currently ongoing, as outlined in the Navy's INRMPs for both islands and Erosion Control Plan on San Clemente Island. As a result of management efforts by the

Navy and NPS, we do not consider any of these threats to the island night lizard habitat to be substantial on any of the occupied islands, nor do we expect them to become so in the foreseeable future.

Disease is not a current threat for the island night lizard on any of the islands where it occurs nor do we anticipate it to be in the foreseeable future; however, predation has impacted the species in the past and continues to be a potential impact to individuals on San Clemente Island. We do not consider predation to be a substantial threat currently or in the foreseeable future due to ongoing feral cat removal efforts implemented through the Navy's INRMP. All feral cats have been removed from San Nicolas Island, and predation is not a threat to the lizard on Santa Barbara Island. Finally, research indicates that the southern alligator lizard is not a threat to the island night lizard on San Nicolas Island.

The overutilization for commercial, recreational, scientific, or educational purposes and inadequacy of regulatory mechanisms are not threats to the island night lizard on any of the occupied islands, nor do we anticipate them to become threats in the foreseeable future.

Climate change has been identified as a potential threat with regard to the present or threatened destruction, modification, or curtailments of its habitat, as well as with regard to other human and manmade factors. However, we cannot precisely determine how climate change will potentially impact the island night lizard and its habitat on San

Clemente, San Nicolas, and Santa Barbara Islands. The species' biology indicates that the lizard may be able to withstand some changes in habitat conditions. Therefore, we do not consider climate change to be a substantial threat to the species throughout its range now or in the foreseeable future.

At the time of listing, the number of island night lizards on San Clemente, San Nicolas, and Santa Barbara Islands was unknown. Research conducted since then indicates that approximately 21 million island night lizards occur on San Clemente Island, 15,300 lizards occur on San Nicolas Island, and 17,600 lizards occur on Santa Barbara Island. While no new population numbers are available, new habitat assessments indicate that the amount of quality habitat supporting the island night lizard has increased on each of the islands. It is likely that the number of lizards has increased in association with the increase of quality habitat on all three islands. Currently, the Navy conducts monitoring for management actions that impact threatened or endangered species, including the island night lizard, as required by its INRMP. The NPS also conducts monitoring on Santa Barbara Island to assess impacts of management actions on listed species, including the island night lizard. Once the island night lizard is removed from the Federal List of Endangered or Threatened Wildlife, the Navy and NPS will continue to monitor the lizard and its habitat through post-delisting monitoring efforts to ensure the species is recovering and does not warrant relisting. Additionally, the Navy and NPS implement management plans and policies to reduce impacts to native biological resources, such as the island night lizard and its habitat, that will help ensure the species does not warrant relisting in the foreseeable future.

We conclude that, since the time of listing in 1977, all substantial threats to the island night lizard have been ameliorated. Any remaining potential threats or nonsubstantial threats to the species or its habitat (i.e., the introduction of nonnative plants, fire, and erosion; land use and development on San Clemente and San Nicolas Islands; and predation on Santa Barbara Island) are currently managed to minimize impacts such that they are not of sufficient imminence, intensity, or magnitude to rise to the level of a threatened species (i.e., likely to become an endangered species within the foreseeable future). The one exception is climate change, for which sufficient information does not currently exist for us to make accurate predictions about the timing and degree of potential impacts. However, data suggest that the extinction risk for the family Xantusidae (which includes the island night lizard) is zero through the year 2080 (based on Sinervo *et al.* (2010) evaluation of Xantusidae (see Climate Change section)). Therefore, using 2080 as our frame of reference for determining the foreseeable future for this threat, we concluded that climate change is not likely to become a substantial threat now or in the foreseeable future. We also note that all six primary objectives of the Recovery Plan were, or are in the process of, being fulfilled (see **Recovery Plan Implementation** section). Additionally, since listing, it was determined that more than 21 million lizards exist in high-quality habitat among the three islands. Based on the current level of threats, we would not anticipate future declines in population numbers.

Therefore, we conclude that the island night lizard is not likely to become endangered in the foreseeable future throughout all of its range because all substantial

threats have been ameliorated, potential threats that may cause stress on one or more populations (or portions of a population) are currently managed, and Recovery Plan objectives have been initiated or fulfilled.

Significant Portion of Its Range Analysis

Having examined the status of the island night lizard throughout all of its range, we next examine whether it could be in danger of extinction or likely to become so in a significant portion of its range. The range of a species can theoretically be divided into portions in an infinite number of ways. However, there is no purpose in analyzing portions of the range that have no reasonable potential to be significant or in analyzing portions of the range in which there is no reasonable potential for the species to be endangered or threatened. To identify only those portions that warrant further consideration, we determine whether substantial information indicates that: (1) The portions may be "significant" *and* (2) the species may be in danger of extinction there or likely to become so within the foreseeable future. Depending on the biology of the species, its range, and the threats it faces, it might be more efficient for us to address the significance question first or the status question first. Thus, if we determine that a portion of the range is not "significant," we do not need to determine whether the species is endangered or threatened there; if we determine that the species is not endangered or threatened in a portion of its range, we do not need to determine if that portion is "significant." In practice, a key part of the determination that a species is in danger of extinction in a significant portion of its range is whether the threats are geographically

concentrated in some way. If the threats to the species are essentially uniform throughout its range, no portion is likely to warrant further consideration. Moreover, if any concentration of threats to the species occurs only in portions of the species' range that clearly would not meet the biologically based definition of "significant," such portions will not warrant further consideration.

We consider the "range" of the island night lizard to be San Clemente, San Nicolas, and Santa Barbara Islands (including Sutil Island) of the California Channel Islands.

We considered whether the threats facing the island night lizard and its habitat might be different on San Clemente Island with approximately 99.85 percent of the population compared to San Nicolas and Santa Barbara Islands with, combined, approximately 0.15 percent of the population (Service 2012b, unpublished data). A detailed spatial evaluation of threats showed that the level of threat, and extent of protective measures, is different on San Clemente Island and San Nicolas Island, compared to Santa Barbara Island due to ownership and activities conducted by the Navy (Service 2012b, unpublished data). However, all substantial threats have been ameliorated throughout the species' range, and the remaining potential threats to the island night lizard are actively managed for by the Navy through implementation of INRMPs, the Federal Noxious Weed Act, and the Soil Conservation and Domestic Allotment Act. On Santa Barbara Island, there are no substantial threats, and the remaining potential threats receive protections provided through the implementation of

NPS's management policies and the Channel Islands National Park Wildland FMP in accordance with the Organic Act. It is our conclusion, based on our evaluation of the current potential threats to the island night lizard on San Clemente, San Nicolas, and Santa Barbara Islands (see **Summary of Factors Affecting the Species** section), that potential threats are neither sufficiently concentrated nor of sufficient magnitude to indicate the species is in danger of extinction or likely to become so on any island and thus it is likely to persist throughout its range.

Future Conservation Measures

Section 4(g)(1) of the Act requires us, in cooperation with the States, to implement a monitoring program for not less than 5 years for all species that have been recovered and delisted. The purpose of this requirement is to develop a program that detects the failure of any delisted species to sustain itself without the protective measures provided by the Act. If at any time during the monitoring period, data indicate that protective status under the Act should be reinstated, we can initiate listing procedures, including, if appropriate, emergency listing. The management practices of, and commitments by, the Department of Defense and NPS under existing laws, regulations, and policies should afford adequate protection to the island night lizard into the foreseeable future upon delisting, as the entire known range of this species occurs within Department of Defense lands on San Clemente and San Nicolas Islands, and NPS lands at Channel Islands National Park.

Post-Delisting Monitoring Plan Overview

The Service has developed a final post-delisting monitoring (PDM) plan for the island night lizard in cooperation with the Navy and NPS. The final PDM plan is designed to verify that the island night lizard remains secure from risk of extinction after removal from the Federal List of Endangered and Threatened Wildlife by detecting changes in its status and habitat throughout its known range.

The final PDM plan outlines five different sampling surveys that will occur over a 9-year period (i.e., years 1, 3, 4, 7, and 9). The draft PDM Plan includes the following measures:

(1) Monitoring the overall health of the island night lizard populations on each island through trap capture rates and recruitment at previously established sampling sites. This monitoring will occur in all habitats for 9 years following delisting. Biologists will conduct density assessments using several methodologies including: pitfall traps, rock-turn surveys, and coverboards arranged in grid arrays or transects. Efforts will be made to sample all sites within each sampling period.

(2) Monitoring high-quality habitat will occur twice throughout post-delisting monitoring to assess abundance and distribution of high-density island night lizard habitats on all islands. Recently completed island-wide habitat maps will be utilized as the baseline assessment to compare with post-delisting monitoring mapping efforts.

(3) Identifying thresholds that would trigger an extension of monitoring, alteration of management approach, or a status review will be established related to island night lizard density, recruitment, and habitat.

Additionally, we are recommending that land managers on each island conduct monitoring in previously unsampled areas on each island consisting of different habitats at least once during PDM with a focus on high-quality habitat. Within these new areas, we recommend using already-established protocols to allow for comparison of newly sampled island night lizard densities and distribution with previously established sites for each island. We also recommend establishing identical protocols for each island to allow for comparison among islands. Additionally, we are recommending that the Navy on San Clemente Island continue to recognize the INLMA and that the Navy on San Nicolas Island establish an INLMA to identify biologically sensitive areas for the island night lizard. Lastly, we recommend that each island continue restoration efforts of high-quality island night lizard habitat to increase distribution and connectivity.

We also expect to monitor the commitments and actions of management plans implemented by the Navy and NPS, which manage potential threats to the island night lizard and its habitat, including the introduction and current persistence of nonnative plants, land use and development, erosion, and fire.

Effects of This Rule

This final rule revises 50 CFR 17.11(h) and removes the island night lizard from the Federal List of Endangered and Threatened Wildlife. Because no critical habitat was designated for this species, this rule would not affect 50 CFR 17.95.

Because this final rule removes this species from the Federal List of Endangered and Threatened Wildlife, the prohibitions and conservation measures provided by the Act, particularly through sections 7 and 9 of the Act, no longer apply. Removal of the island night lizard from the Federal List of Endangered and Threatened Wildlife relieves Federal agencies from the need to consult with us to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of this species.

Required Determinations

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

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

National Environmental Policy Act

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.), need not be prepared in connection with removing a species from the Federal List of Endangered or Threatened Wildlife. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

Government-to-Government Relationship with Tribes

In concurrence with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and the Department of 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. We have determined that there are no tribal lands affected by this rule.

References Cited

A complete list of all references cited in this rule is available on the Internet at *http://www.regulations.gov* or upon request from the Field Supervisor, Carlsbad Fish and Wildlife Office (see **ADDRESSES**).

Author

The primary author of this rule is the Carlsbad Fish and Wildlife Office in Carlsbad, California (see **ADDRESSES**).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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

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

2. Amend §17.11(h) by removing the entry for “Lizard, Island night” under “Reptiles” in the Federal List of Endangered and Threatened Wildlife.

Dated: March 10, 2014.

Betsy Hildebrandt,

Acting Director, Fish and Wildlife Service.

Billing Code 4310–55

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