
Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding. Members of the public should note that from the time a Notice of Proposed Rulemaking is issued until the matter is no longer subject to Commission consideration or court review, all ex parte contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible ex parte contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

List of Subjects in 47 CFR Part 73
Television, Television broadcasting.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 73 as follows:

PART 73—RADIO BROADCAST SERVICES

1. The authority citation for part 73 continues to read as follows:


§ 73.622(i) [Amended]
2. Section 73.622(i), the Post-Transition Table of DTV Allotments under Wisconsin is amended by adding DTV channel 5 and removing DTV channel 44 at Fond du Lac.

Clay C. Pendarvis,
Associate Chief, Video Division, Media Bureau, Federal Communications Commission.

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BILLING CODE P

DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service

50 CFR Part 17

[FWS-R8-ES-2009-0019; M9221050083]
RIN 1018-AV91

Endangered and Threatened Wildlife and Plants; Listing Casey's June Beetle (Dinacoma caseyi) as Endangered and Designation of Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list Casey's June beetle (Dinacoma caseyi) as endangered under the Endangered Species Act and propose to designate approximately 777 acres (ac) (314 hectares (ha)) of land as critical habitat for Casey's June beetle in south Palm Springs, Riverside County, California. This species inhabits desert chaparral plant communities associated with gently sloping, depositional surfaces formed at the base of the Santa Rosa Mountains in the Coachella Valley region. This proposed rule, if made final, would implement Federal protection provided by the Act.

DATES: We will accept comments received or postmarked on or before September 8, 2009. We must receive requests for public hearings, in writing at the address shown in FOR FURTHER INFORMATION CONTACT.

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

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

• U.S. mail or hand-delivery: Public Comments Processing, Attn: [FWS- R8-ES-2009-0019]; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will not accept e-mail or faxes. We will post all comments on http://www.regulations.gov. This generally means that we will post any personal information you provide us (see the Public Comments section below for more information).


SUPPLEMENTARY INFORMATION:

Public Comments

We intend that any final action resulting from this proposal will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or suggestions on this proposed rule from the public, tribes, other concerned governmental agencies, the scientific community, industry, or any other interested parties. We particularly seek comments concerning:

(1) Any available information on known or suspected threats and proposed or ongoing projects with the potential to threaten Casey's June beetle, specifically: (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; and (e) other natural or manmade factors affecting its continued existence;

(2) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Endangered Species Act of 1973, as amended (Act; 16 U.S.C. 1531 et seq.), including whether there are threats to this species from human activity, the degree of which can be expected to increase due to the designation, and
whether that increase in threat outweighs the benefit of designation, such that the designation of critical habitat is not prudent;
(3) Additional information concerning the range, distribution, and population size of this species, including the locations of any additional populations of this species;
(4) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat;
(5) Any foreseeable economic, national security, or other relevant impacts resulting from the proposed critical habitat designation and, in particular, any impacts to small entities, and the benefits of including or excluding areas that exhibit these impacts;
(6) The proposed designation of tribal lands owned by the Agua Caliente Band of Cahuilla Indians in light of Secretarial Order 3206, “American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act” (June 5, 1997); 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 relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2); and
(7) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the ADDRESSES section. We will not consider comments sent by e-mail or fax or to an address not listed in the ADDRESSES section.

We will post your entire comment—including your personal identifying information—on http://www.regulations.gov. If you provide personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy comments on http://www.regulations.gov. Please include sufficient information with your comment to allow us to verify any scientific or commercial data you submit.

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

Background

It is our intent to discuss only those topics directly relevant to the proposed listing of Casey’s June beetle as endangered and proposed designation of critical habitat. For more detailed information on the taxonomy, biology, and ecology of Casey’s June beetle, please refer to the 90–day finding on the petition to list the species under the Act, published in the Federal Register on August 8, 2006 (71 FR 44960), and the 12–month finding, published in the Federal Register on July 5, 2007 (72 FR 36635). These documents are available on the Internet at http://www.fws.gov/Carlsbad.

Species Information

Life History and Habitat

Casey’s June beetle (Dinacoma caseyi) was first collected in the City of Palm Springs, California, in 1916 and later described by Blaisdell (1930. pp. 174–176) based on male specimens. This species measures 0.55 to 0.71 inch (1.4 to 1.8 centimeters (cm)) long, with dusty brown or whitish coloring, and brown and cream longitudinal stripes on the elytra (wing covers and back). Casey’s June beetles emerge from underground burrows sometime between late March and early June, with abundance peaks generally occurring in April and May (Duff 1990, p. 3; Barrows 1998, p. 1). Females are always observed on the ground and are considered flightless (Duff 1990, p. 4; Hovore 1995, p. 7; Hovore 2003, p. 3). It is unknown how far females can disperse, or if they may disperse by other than terrestrial crawling (such as incidental movement by birds). Flightless adult June beetles are not likely to be dispersed by the wind or larger animals. It is likely adult or larval females are moved by water flow in wash areas, although it is unclear what their survival rate is under such circumstances. Females display an accentuated sexual dimorphism characterized by an enlarged abdomen, reduced legs and antennae, and metathoracic wing reduction and venation. During the active flight season, males emerge from the ground and begin flying near dusk (Hovore 2003, p. 3). Males are reported to fly back and forth or crawl on the ground where a female beetle has been detected (Duff 1990, p. 3). After mating, females return to their burrows or dig a new burrow and deposit eggs. Excavations of adult emergence burrows revealed pupal exuviae (casings) at depths ranging from approximately 4 to 6 in (10 to 16 cm) (Hovore 1995, p. 6).

The larval cycle for the species is likely 1 year, based on the absence of larvae (grubs) in burrows during the adult flight season (La Rue 2004, p. 1). The food source for Casey’s June beetle larvae while underground is unknown, but other species of June beetles are known to eat “plant roots or plant detritus and associated decay organisms” (La Rue 2004, p. 1).

La Rue (2006, p.1) stated that all Dinacoma species populations are ecologically associated with alluvial sediments. Casey’s June beetle habitat is typically associated with broad, gently sloping, depositional surfaces that form at the base of the Santa Rosa Mountains in the dry Coachella Valley region by the overlapping or converging of individual alluvial fans (bajada) (Bates and Jackson 1987, p. 52).

Casey’s June beetle is most commonly associated with Carsitas gravelly sand series soil (CdC), described by the United States Department of Agriculture (USDA on-line Geographic Information System (GIS) database 2000; USDA 1980, pp. 11–12) as gravelly sand on 0 to 9 percent slopes. This soil series is associated with alluvial fans, rather than areas of aeolian or windblown sand deposits. Hovore (2003, p. 2) described soils where Casey’s June beetle occurs or occurred historically as, “* * * almost entirely carsitas series, of a CdC type, typically gravelly sand, single grain, slightly effervescent, moderately alkaline (pH 8.4), loose, non-sticky, non-plastic, deposited on 0 to 9 percent slopes. On alluvial terraces and where they occur within washes, these soils show light braiding and some organic deposition, but [most years] do not receive scouring surface flows.” Although Casey’s June beetles have primarily been found on CdC soils, the beetles are also associated with Riverwash (RA), and possibly Carsitas cobble sand (ChC), soils in the Palm Canyon Wash area (Anderson and Love 2007, p. 1). Their burrowing habits would suggest that Casey’s June beetles need soils that are not too rocky or compacted and not difficult to burrow into.

Species Distribution and Status

Casey’s June beetle distribution is confined to an area of less than 800 acres (324 hectares (ha)) in southern Palm Springs, California. According to information reported in the 12–month finding (72 FR 36635: July 5, 2007), known occurrences of Casey’s June
beetles are restricted to locations within the Palm Canyon alluvial floodplain. Additional information on the species’ distribution was brought to our attention following the publication of our 12-month finding. Surveys conducted by Bruyca in 2006 discovered a total of 13 individual Casey’s June beetles at a new location east and south of Palm Canyon Wash, adjacent to East Palm Canyon Drive. This location, not known to us at the time of the publication of our 12-month finding, represents a slight eastern extension for Casey’s June beetle. However, small, declining, and peripheral (disjunct or connected) populations are more vulnerable to demographic, genetic, and environmental stochastic events and natural catastrophes. Genetic stochastic events can further influence population demography via inbreeding depression and genetic drift. In a seminal work, Allee (1931) suggested small, single populations disappear when opportunities for reproduction dissipate because of reduced opportunity to find each other (Allee effect or depensation). Stephens et al. (1999, pp. 185–190) and Dennis (2002, pp. 389–401) suggest comparable definitions indicating that the Allee effect is a density-dependent event that is inversely related to population size. Courchamp et al. (2008, pp. 160–170) further notes that habitat loss and fragmentation may exacerbate Allee effects by further decreasing the size or density of small populations. Although no empirical information is available to determine the rate of population change for Casey’s June beetle, the population has decreased over the past 10 years, even when locations of new sightings of scattered individuals are considered.

For the purposes of determining current range in relation to our proposed critical habitat designation, we assume all suitable habitat areas are occupied adjacent to and between areas where Casey’s June beetles have been detected. We determined this assumption based on the presence of the primary constituent elements (PCEs) in these areas and the dispersal capabilities of males during flight season, with reasonable potential for male movement throughout all suitable habitat areas.

For more information about the distribution and historic range of the species, please refer to the 12-month finding (72 FR 36635; July 5, 2007).

**Previous Federal Action**

This proposed listing with critical habitat is in response to our warranted but precluded 12-month finding that was published in the *Federal Register* on July 5, 2007 (72 FR 36635). For more information on previous Federal actions related to Casey’s June beetle, please refer to our July 5, 2007, 12-month finding.

Casey’s June beetle was precluded from listing in our July 5, 2007, finding (72 FR 36635) because of the lack of funding for the large number of candidate species. In Fiscal Year 2007, we had more than 120 species with a Listing Priority Number (LPN) of 2, based on our September 21, 1983, guidance for assigning an LPN for each candidate species (48 FR 43098). Using this guidance, we assigned each candidate an LPN of 1 to 12, depending on the magnitude of threats (high vs. moderate to low), immediacy of threats (imminent or nonimminent), and taxonomic status of the species (in order of priority: monotypic genus (a species that is the sole member of a genus); species or part of a species (subspecies, distinct population segment, or significant portion of the range)). The lower the LPN, the higher the listing priority (that is, a species with an LPN of 1 would have the highest listing priority). Based of the large number of high-priority species, we further ranked the candidate species with an LPN of 2 by using the following extinction-risk type criteria: International Union for the Conservation of Nature and Natural Resources (IUCN) Red List status/rank, Heritage rank (provided by NatureServe), Heritage threat rank (provided by NatureServe), and species currently with fewer than 50 individuals, or 4 fewer populations. Those species with the highest IUCN rank (critically endangered), the highest Heritage rank (G1), the highest Heritage threat rank (substantial, imminent threats), and currently with fewer than 50 individuals, or fewer than 4 populations, comprised a list of approximately 40 candidate species (“Top 40”). These 40 candidate species have the highest priority to receive funding to work on a proposed listing determination. Casey’s June beetle, composed of one biological population, ranked as critically endangered (G1), and with substantial threats, was included in the Top 40. Although funding was not available at the time of the 12-month finding, we subsequently received funding for development of a proposed listing rule for this Top 40 species.

**Proposed Listing of Casey’s June Beetle**

**Summary of Factors Affecting the Species**

Section 4 of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to Federal Lists of Threatened and Endangered Wildlife and Plants. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1) of the Act. The five listing factors are: (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; and (e) other natural or manmade factors affecting its continued existence.

**Factor A. The Present or Threatened Destruction, Modification, or Curtailment of the Species’ Habitat or Range.**

Casey’s June beetle is part of a family of beetles that have naturally restricted ranges (LaRue 2006, p. 1). This beetle is adapted to specialized habitat and soil types found in the Palm Canyon Wash area of Palm Springs, California. We do not know the exact historical range of Casey’s June beetle due to general location descriptions from early collection records (see discussion in the 90-day finding (71 FR 44962; August 8, 2006)). Based on this anecdotal information, we used soils data as the principle component to estimate that 97 percent of the historical range of Casey’s June beetle has been converted to development. Of the 777 ac (314 ha) of land remaining as extant habitat, 343 ac (139 ha) are tribal lands and 323 ac (131 ha) are in private ownership. Tribal land consists of approximately 86 ac (35 ha) in tribal trust, 67 ac (28 ha) in fee-title, and 193 ac (78 ha) in allotment. The remaining 14 percent (111 ac (45 ha)) is owned by local entities (City of Palm Springs and County Flood Control) for roads, flood control, and water facilities. All tribal lands are at risk of development, as are any undeveloped portions of the lands owned by local governments and private landowners.
The population of the City of Palm Springs has increased from 42,805 to 47,251 between 2000 and 2008, an increase of 10 percent (CDF 2008, Table 1, Table E-1). The city is predicted to grow by 25 percent between 2000 and 2020 (SCAG 2004, table 2004GF). The current growth rate has increased development pressure for residential and commercial property that encroaches upon Casey’s June beetle habitat.

We analyzed suburban development within southern Palm Springs from 2003 to 2007 to determine habitat impacts of completed and pending projects as cited in the petition and referenced in the July 5, 2007, 12–month finding (72 FR 36635). We were unable to identify all projects cited in the petition (and the 90–day finding: 71 FR 44962, August 8, 2006), as the petitioners did not provide specific geographic descriptions, and the extent of area of proposed development projects cited did not exactly match calculations in our most recent analysis. However, based on site visits and digital aerial photographs, we identified at least seven projects that removed occupied and likely occupied habitat, within the distribution described above, in the past 5 years. The Monte Sereno project north of Bogart Trail adjacent to Palm Canyon Wash (tribal lands) impacted approximately 39 acres (16 ha) of occupied habitat. Impacts to Casey’s June beetle were expected to be mitigated by payment of $600 per acre ($240 per ha) (total of $24,780) to the City of Palm Springs or $600 per acre ($240 per ha) (total of $57,600) to the City of Palm Springs or $600 per acre ($240 per ha) (total of $17,400) for Smoke Tree Ranch Cottages (City of Palm Springs). The petitioners did not provide specific information and 2008 digital aerial photographs, we determined that there is upland habitat (approximately 6 ac (2.4 ha) of this upland habitat is occupied and likely occupied by Casey’s June beetle). We conducted an analysis for the 12–month finding (72 FR 36635) that used available digital aerial photographs at intervals from 1991 to 2005 (Anderson and Love 2007, pp. 1–2) and 2006 field surveys (Anderson 2006b, pp. 1–36), which determined that Casey’s June beetle experienced an approximate 25 percent reduction in contiguous habitat from 770 ac (314 ha) in 1991 to 576 ac (233 ha) in 2006. Since 2006, new biological surveys and information have been provided to us that results in a larger area that we now consider as occupied habitat. With this new information and 2008 digital aerial photographs, we determined that there was approximately 1,001 ac (405 ha) of habitat in 1991. Therefore, our new analysis shows that Casey’s June beetle has experienced approximately 22 percent reduction in habitat from 1,001 ac (405 ha) in 1991 to 777 ac (314 ha) in 2008. Our updated calculations account for these additional acres and reveal that habitat was lost at a rate of 1.6 percent per year from 1991 to 1996, at a rate of 0.6 percent per year from 1996 to 2003, at a rate of 3.8 percent per year from 2003 to 2005, and at a rate of 0.7 percent per year from 2005 to 2008. The rate of habitat loss could be accelerated as remaining parcels of habitat are developed or impacted in blocks; thus, any or all remaining habitat could be developed/lost or impacted within a given year.

Since publication of the July 5, 2007, 12–month finding (72 FR 36635), the City of Palm Springs completed the California Environmental Quality Act (CEQA) environmental review process for the 80–100 ac (32–40 ha) Eagle Canyon residential development project planned on tribal lands (Davis 2007, p. 1; Davis 2007, p. 1) in the area containing CdC soils west of South Palm Canyon Drive near Bogart Trail and Acanto Drive (tentative tract number 30047) (City of Palm Springs 2008, p. 14). Our analysis (Anderson and Love 2007, pp. 1–3) indicates that this project may alter the drainage system maintaining soil moisture levels in approximately 54 ac (22 ha) by disrupting the water source maintaining suitable soil moisture levels and directly impacting CdC soils likely to be occupied. This in turn could potentially decrease the 777 ac (314 ha) of remaining extant, suitable habitat by 7 percent. Limited surveys conducted on the Eagle Canyon project, where occupancy was previously documented, were inconclusive in determining the likelihood of current habitat occupancy (Osborne 2008b, p. 3).

Extant habitat estimations include wash habitat where Casey’s June beetle may not be able to maintain occupancy following severe flood events (Cornett 2004, p. 14; Hovore 2003, p.11). Of the total 777 ac (314 ha) estimated remaining habitat, only 523 ac (212 ha) is upland habitat (approximately 6 ac (2.4 ha) of this upland habitat is proposed to be impacted by the Eagle Canyon project). Upland habitat refers to any upland terrace area that is outside of the wash and does not occur on Riverwash (RA) soils. According to the Coachella Valley General Plan data (Riverside County 2005), all remaining upland habitat within Smoke Tree Ranch and on tribal lands north of Acanto Drive is projected to be developed at a density of two homes per acre (0.8 per ha) by the year 2020, even though some parcels are designated as parks and recreation in the 2020 General Plan (code GP2020 = “1145”) and are presently developed with three homes per acre (1.2 per ha). Undeveloped habitat on tribal land south of Acanto Drive has the same initial land use designation as adjacent land north of Acanto Drive (LU93 = “1300”) (Riverside County 2005, pp. 94–120) in the East Bogert Trail area, except that it
is outside the city limit of Palm Springs (code GP2020 = “58”). Some of these lands are developed at a density of one home or more per acre (0.4 per ha). Code GP2020 = “58” is designated as tribal land or open space in the General Plan. However, lands in this area with this designation have been developed at a density as high as three homes per acre, indicating that planning designs on tribal land do not ensure the final land use. Land use projections (Riverside County 2005) indicate most of the 523 ac (212 ha) of remaining upland Casey’s June beetle habitat (where the species would not be exposed to scouring floods) could be eliminated by development.

Development is the greatest threat to habitat in upland CdC soils that are believed to support Casey’s June beetle; however, development threats are not limited to upland terrace habitat. For example, entire sections of Palm Canyon Wash east of occupied habitat near Gene Autry Trail have been converted to golf course landscaping (Anderson and Love 2007, p. 3). La Rue (2006, p. 2) emphasized the magnitude of development threats to Dinacoma spp. population survival: “Most Dinacoma [spp.] have experienced range reduction because of unprecedented habitat destruction and modification for recreational, residential and urban development resulting in serious distributional fragmentation throughout [their] former already naturally limited ranges. Consequently, several populations [of the genus Dinacoma] have been extirpated, especially those that once existed in Los Angeles County (for example, Glendale, Eaton Canyon).” Therefore, habitat modification for recreational, residential, and urban development reduces an already limited range for Casey’s June beetle and poses a substantial threat to this species’ survival.

However, we note that although undeveloped and undisturbed lands are essential to the survival of Casey’s June beetle, Smoke Tree Ranch represents the largest remaining habitat patch and largest occurrence of the species, and may represent a community where the spatial scale of human disturbance or fragmentation can coexist with this species’ occupancy, as Hanski (Hanski et al. 2005, pp. 21–28) models for butterflies, and others identify with neutral models (Doak et al. 1992, pp. 315–336; With and Crist 1995, pp. 2446–2459). Although Smoke Tree Ranch represents the largest known remaining habitat patch, Allee effects as a function of fragmentation may be expressed on this segment of the population (Courchamp et al. 2008, pp. 160–170).

In addition to the threat of direct conversion of remaining habitat, analysis of 2008 aerial photography in Palm Canyon Wash indicates numerous land-disturbance activities affecting occupied wash habitat managed by the Riverside County Flood Control and Water Conservation District. In the vicinity of the State Route 111 bridge and Araby Drive, there appears to be road maintenance and flood control activities, as well as unregulated off-road vehicle disturbance. Cornett (2003, p. 12) noted similar off-road vehicle (ORV) impacts during Casey’s June beetle surveys on a nearby site adjacent to Whitewater Wash and the Palm Springs Airport. Off-road vehicles impact desert soils and associated biota by increasing erosion (Snyder et al. 1976, pp. 29–30; Rowlands 1980, p. 169), reducing both plant and vertebrate diversity (Bury et al. 1977, Table 4, Figure 6; Rowlands 1980, pp. 63–74; Lathrop 1983, pp. 153–166; Cornett 2004, p. 15), and changing soil density through compaction, which may also influence soil water retention capacity (Lathrop and Rowlands 1983, pp. 144–145; Webb 1983, pp. 51–79, Adams et al. 1982, pp. 167–175). Indirect evidence suggests that land disturbance impacts the species’ burrows and larvae that occur in the soil and the flightless females when they rest at the top of the burrows (Cornett 2004, p. 15). Any activities that cause direct adult mortality, compact or disturb soils when adult beetles are active, or affect soils to a depth where immature stages or resting adults are found, may affect the species’ persistence in those areas or dispersal to adjacent areas. Land practices that disc the soil as a means of fire prevention or control may also impact habitat, as well as frequent use for horseback riding by local riding clubs. Therefore, land disturbance activities pose a significant threat to species’ survival.

Casey’s June beetle habitat in Palm Springs has been increasingly fragmented by development in recent years (see above development discussion). Continued fragmentation of already limited, remnant habitat compromises the ability of various species to disperse and establish new, or augment declining, populations (Collinge 2000, p. 2211–2226; Freemark 2002, pp. 58–83; Driscoll and Weir 2005, pp. 182–194) and can isolate segments of a population (Picket and White 1986, pp. 189–192). Isolated populations, in particular, are at increased risk of expropriation by stochastic events, and elimination of dispersal areas that would have provided for population expansion (Hanski et al. 1995, pp. 21–28; Collinge pp. 2000, 2211–2226). This process, as it applies to Casey’s June beetle, is evident in the development history of the City of Palm Springs and the distribution of populations (Cornett 2004, pp. 11, 14). Casey’s June beetle is especially impacted by habitat fragmentation because females are flightless and unable to move between fragmented patches (Hovore 1995, p. 7). Although male beetles can move between habitat patches, thereby maintaining genetic mixing on a local scale, fragmented patches that no longer support any female Casey’s June beetles may be attractive sinks to male beetles. The risk of local extinction is widely noted to increase as the fraction of occupied habitat patches, occupied patch area, and density of occupied patches decrease (Foreman and Godron 1989, 87–91; Hanski 1991, pp. 17–38; Hanski et al. 1995, pp. 21–28; Hokit and Branch 2003, pp. 1060–1068).

Hovore (2003, p. 4) indicated population movement would be “slow and indirect,” and suggested the population structure for Casey’s June beetle in any given area could be described as multiple mini-colonies or “clusters of individuals around areas of repeated female emergence.” Females located in habitat edge patches may be most at-risk due to their placement in the landscape. This would, in Hovore’s (2003, p. 4) assessment, make the species “susceptible to extirpation resulting from land use changes that would remove or alter surface features” that isolate colonies into non-contiguous patches. Although fragmentation of habitat within a population still allows mixing of genes by male flight, it would preclude recolonization of a site should all flightless female individuals be eliminated. Fragmentation of suitable habitat into smaller patches increases the amount of habitat edge and, therefore, increases the risk of colony loss and decreases the probability of species’ survival.

Summary of Factor A

Twenty-two percent (193 ac [78 ha]) of the 1,001 ac (405 ha) of contiguous suitable habitat for Casey’s June beetle identified in 1991 has been lost to development. The rate of habitat loss has continued to increase since the early 1990’s. From 2003 to 2005 the greatest loss of Casey’s June beetle habitat occurred at a rate of 3.8 percent per year. Although the rate of habitat loss since 2005 is less than 3.8 percent per year, development and habitat impact
trends are continuing (see above discussion of Eagle Canyon project approved by the City of Palm Springs), and we anticipate additional upland habitat for the beetle may be impacted or lost in the foreseeable future. Based on recent information and calculations, we believe that the estimated amount of undeveloped habitat currently available for the species is approximately 777 ac (314 ha) (including all non-contiguous habitat containing all soil types used by the species) with some of these areas possibly serving as biological sinks for the species. Projecting development at current rates within the extant range of the beetle suggests that in 20 years almost all remaining habitat may be lost on private or tribally owned land. Based on current projected development and habitat impact trends, the loss of historically occupied locations, the limited distribution of Casey’s June beetle, habitat fragmentation, and land use changes associated with urbanization, we find that Casey’s June beetle is in danger of extinction by the present and threatened destruction, modification, and curtailment of its habitat.

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

We are not aware of any information regarding overutilization of Casey’s June beetles for commercial, recreational, scientific, or educational purposes and do not consider collection for these activities to be a threat to the species at this time.

**Factor C. Disease or Predation**

We are not aware of any information regarding threats of disease or predation to Casey’s June beetle and do not consider disease or predation to be a threat to the species at this time.

**Factor D. The Inadequacy of Existing Regulatory Mechanisms**

Existing regulatory mechanisms that could provide some protection for Casey’s June beetle include: (1) State laws and regulations; and (2) local land use processes and ordinances (for example, tribal environmental policies). However, these regulatory mechanisms are not preventing continued habitat modification and fragmentation. There are no regulatory mechanisms that specifically or indirectly address the management or conservation of essential habitat for Casey’s June beetle. Additionally, there are no regulatory protections for other species that may provide incidental benefit to Casey’s June beetle. The following section discusses the above-mentioned regulatory protections.

**State Laws**

The California Environmental Quality Act (CEQA) requires disclosure of potential environmental impacts resulting from public or private projects carried out or authorized by all non-Federal agencies in California. The CEQA guidelines require a finding of significance if a project has the potential to “reduce the number or restrict the range of an endangered, rare or threatened species” (CEQA Guideline 15065). As a candidate species for Federal listing, Casey’s June beetle is considered rare under CEQA Guideline 15380. The lead agency can either require mitigation for unavoidable significant effects or decide that overriding considerations make mitigation infeasible (CEQA Guideline 21002); such overrides are rare. In the case of overrides, projects may be approved that cause significant environmental effects, such as destruction of listed endangered species or their habitat. Therefore, protection of listed species through CEQA is dependent upon the discretion of the agency involved.

The California Endangered Species Act (CESA) provides protections for many species of plants, animals, and some invertebrate species. However, insect species, such as Casey’s June beetle, are not afforded protection under CESA. Therefore, this is an existing regulatory mechanism that does not provide for the protection of Casey’s June beetle or its habitat.

**Existing Tribal Regulatory Mechanisms**

Lands of the Agua Caliente Band of Cahuilla Indians, included in the draft Tribal Habitat Conservation Plan (HCP), encompass 343 ac (139 ha) or approximately 45 percent of the estimated extant Casey’s June beetle habitat (RA and CdC soils) according to our 2009 habitat analysis. Based on soil and species collection records, we estimate that historically (pre-European settlement), Casey’s June beetle potentially occupied 5,834 ac (2,361 ha) (18 percent) of land currently owned by the Tribe. All post-1996 development of occupied habitat, with the exception of the 17-ac (7-ha) Smoke Tree Commons project, has occurred on Agua Caliente Band of Cahuilla Indians land. The remaining 273 ac (111 ha) of upland habitat on the Agua Caliente Band of Cahuilla Indians land is relatively flat and adjacent to, or surrounded by, recent development (Davis 2007, pp. 1–3), and some of these lands are approved for development by the City of Palm Springs and will likely be developed (please refer to the discussion of the Eagle Canyon project under “Factor A” above).

In a letter to the Carlsbad Fish and Wildlife Office’s Field Supervisor dated October 10, 2006, the Tribe stated they had “...enacted a Tribal Environmental Policy Act to, among other things, ensure protection of natural resources and the environment. See Tribal Ordinance No. 28 at I.B., (2000).” The referenced Tribal Environmental Policy Act (Tribal Act) (Tribe 2000) states that the Agua Caliente Band of Cahuilla Indians is the lead agency for preparing environmental review documents, and that tribal policy is to protect the natural environment, including “all living things.” According to the Tribal Act (Tribe 2000, p. 4), the Tribe will consult with any Federal, State, and local agencies that have special expertise with respect to environmental impacts.

Several projects implemented on tribal lands since the enactment of the Tribal Act have impacted Casey’s June beetle habitat. Casey’s June beetle occupancy of the Bogert Trail site in the vicinity of South Palm Canyon Drive on tribal land (Duff 1990, pp. 2–3, 4; Barrows and Fisher 2000, p. 1; Cornett 2004, p. 3; Hovore 1997, p. 4; Hovore 2003, p. 4) has been greatly reduced, if not eliminated, by development since our receipt of the petition in 2004 (see Factor A above). The Alta and Monte Sereno development projects eliminated most of the species’ upland habitat outside of Smoke Tree Ranch estimated to be occupied in 2003. Hovore (2003, p. 4) estimated that grading for the Alta project near South Palm Canyon Drive and Bogert Trail in May 2003 reduced the extant Casey’s June beetle population size by “about one-third.”

No Federal, State, or local agencies that have special expertise with respect to environmental impacts to Casey’s June beetle were consulted and no review documents were prepared by the Tribe prior to the recent development of the Alta and Monte Sereno projects in occupied Casey’s June beetle habitat; therefore, our understanding is that the Tribal Act does not effectively protect the species’ habitat. The Chief Planning and Development Officer for the Tribe (Davis 2007, p. 1) affirmed that the Tribal Act does not apply to all tribal reservation lands; for example, the currently planned Alturas development project (see Factor A above) is not covered, because it is “fee land.” Although State environmental review documents (CEQA Environmental Impact Reports) were prepared by private consultants and reviewed by the
City of Palm Springs for the Eagle Creek development project, the Tribe did not participate in the review or comment with regard to Casey’s June beetle (Davis 2007, p. 1).

Our analysis indicates that although some tribal environmental policy does exist (Tribe 2000), it is a non-specific guidance document that does not contain mandates or adequately protect Casey’s June beetle and its habitat. Therefore, we do not believe that existing tribal regulatory documents ensure conservation of Casey’s June beetle. The Service will continue to work with the Tribe to obtain any other information that illustrates how tribal actions or policies would help conserve Casey’s June beetle habitat and protect the species. Currently, we do not have information documenting how occupied or potentially occupied habitat for Casey’s June beetle is protected from development and other impacts on tribal lands. The Agua Caliente Band of Cahuilla Indians prepared and submitted a draft HCP to the Service, which has undergone public review in accordance with the National Environmental Policy Act (72 FR 58112). Although the Casey’s June beetle was proposed as a “Covered Species” in the draft HCP, the Tribe informed the Carlsbad Fish and Wildlife Office that they have “decided to remove Casey’s June beetle from the list of species for which it is seeking take authority under its Tribal Habitat Conservation’ plan (ACBCI 2008, p. 1). In discussions regarding preparation of our final permit decision documents for the HCP, we asked the Tribe to reconsider their decision, and we continue to work with them to address Casey’s June beetle and other species that may be impacted by land development activities on their tribal lands.

Coachella Valley Multiple Species Habitat Conservation Plan

Some non-Federal lands within the purported historical range of Casey’s June beetle are proposed for management under the Coachella Valley Multiple Species Habitat Conservation Plan (Coachella Valley MSHCP). The Service issued a single incidental take permit (TE-104604-0) under section 10(a)(1)(B) of the Act to 19 permittees under the Coachella Valley MSHCP for a period of 75 years on October 1, 2008. Although Casey’s June beetle was initially considered for coverage under the Coachella Valley MSHCP, the September 2007 release of the final MSHCP did not include Casey’s June beetle as a covered species. Because it is not a covered species, the MSHCP does not provide specific measures for the protection or conservation of the species and its habitat.

Summary of Factor D

Existing regulatory mechanisms are not adequate to protect remaining Casey’s June beetle habitat or the species itself. Occupied habitat continues to be lost to development projects, such as those in the Bogert Trail area, which were constructed without any Casey’s June beetle mitigation. Because existing regulatory mechanisms do not provide protection for this species or its habitat, we believe this presents a significant threat to the survival of Casey’s June beetle.

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

The Casey’s June beetle population may be threatened by other natural or anthropogenically influenced factors, such as climate change, increased intensity and frequency of scouring events in wash habitat, and indirect effects associated with adjacent development. However, there is little species-specific scientific information describing or predicting the potential for these threats to be realized, and these issues should be the subject of future research.

Past and ongoing development adjacent to Palm Canyon Wash, channelization of the wash to protect development, and development of associated flood-control levees are all likely to increase Casey’s June beetle mortality during flood events. Urban development adjacent to natural creek beds or washes concentrates stream flow by Constraining channel width, thereby increasing the speed of water flowing past a given location (hydrograph; cubic feet per second) (Poff et al. 1997, p. 772). Therefore, scouring events occur more frequently than would have occurred prior to development that has already occurred around Palm Canyon Wash. Scouring events may temporarily eliminate Casey’s June beetles within Palm Canyon Wash (Hovore 2003, p.9; Cornett 2004, p. 14). After scouring events, the wash would be slowly repopulated by females from neighboring occupied habitat outside the wash (for example, Smoke Tree Ranch) or from refugia within the wash. However, if scouring events continue to increase in frequency, there may be a point when the ability of and time needed for females to emigrate from surrounding occupied habitat or higher-elevation refugia into the wash will be longer than the scouring frequency. We do not know how far or how fast females can emigrate from upland refugia; however, we expect that travel across land would be relatively slow and occur over short distances compared to males that can fly. If this point is reached, Casey’s June beetles may become extirpated from Palm Canyon Wash. We determined that the increased frequency of scouring events due to indirect effects of development adjacent to the wash may be a significant threat to Casey’s June beetle.

Casey’s June beetle is sensitive to changes in climate factors, such as wind, temperature (for example, drying of alluvial soils), precipitation, and catastrophic flood events (Noss et al. 2001. p. 42; La Rue 2006, p. 2). As discussed above, increased intensity and frequency of flooding and scouring events in Palm Canyon Wash is of particular concern for Casey’s June beetle. The global frequency of heavy precipitation events has increased since 1960, consistent with warming and observed increases of atmospheric water vapor, and it is “very likely” (90 percent confidence) that heavy precipitation will generally become even more frequent over most land areas (IPCC 2007, pp. 2 and 8–9). A review of literature and historic climate data specific to the area of Casey’s June beetle (Anderson 2007, pp. 1–6) indicates Coachella Valley precipitation, peak stream flow (NWIS 2008), and other weather patterns since 1950 in Palm Canyon, are locally consistent with these global patterns predicted by the IPCC (2007 p. 2, pp. 8–9, and 15). General Circulation Models predict a 1 to 3 degree Fahrenheit (0.5 to 1.7 degree C) rise in temperature and at least a 25 percent increase in precipitation by 2050, to as much as a 50 percent increase in precipitation as early as 2030 for California (Field et al. 1999, pp. 5–10; Giorgi et al. 1994, pp. 375–399), and increasing intensity of flood and drought events (Dessens 1995, pp. 1241–1244; Giorgi et al. 1994, pp. 375–399). Other models predict an as much as a 100 percent increase in summer monsoonal precipitation for portions of the southwestern United States (Arritt et al. 2000, pp. 565–568). Therefore, it is likely the severity and frequency of heavy precipitation events will increase in the area.

Insect surveys using light traps have recorded male Casey’s June beetles traveling up to 328 feet (ft) (100 meters (m)) to artificial light sources (Osborne 2008a, p. 2) during light nights. Artifical light sources as black lights or mercury vapor lights may draw males in
a line-of-sight radius from existing habitat (Hovore 2003, p. 3). As males fly in search of female pheromone plumes (Domek et al. 1999, pp. 271–276), they may become distracted by light sources that attract them to sites that are out of suitable habitat for this species where they are preying upon, or to local swimming pools where they end up in pool skimmers and often drown. Swimming pools are one common source for male Casey's June beetle specimens (Barrows 1998, p. 1; Barrows and Fisher 2000, p. 1; Cornett 2004, p. 5) and may serve as a genetic sink for this species. If large numbers of male Casey’s June beetles are lost to these indirect effects of development, there could be reduced genetic diversity in males available for mating. Male beetles located at habitat patch edges closer to light sources would be more susceptible to distraction than those located at the center of patches. The loss of large numbers of these male Casey’s June beetles would reduce or eliminate genetic segments of the population and diminish the overall genetic diversity of the population. We believe that loss of male beetles due to the indirect effects of development adjacent to upland habitat may be a significant threat to Casey’s June beetle.

Summary of Factor E

Casey’s June beetle is negatively affected by increased intensity and frequency of catastrophic flood events, changing climatic patterns, and loss of habitat. We believe that loss of male beetles due to the indirect effects of development adjacent to upland habitat may be a significant threat to Casey’s June beetle.

Determination

We carefully assessed the best available scientific and commercial information regarding the past, present, and future threats to Casey’s June beetle. Section 3(5)(C)(6) of the Act defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range.” This species’ extremely low numbers, slow dispersal rate, and highly restricted geographic range make it particularly susceptible to extinction at any time from random events, such as 100-year floods, scouring events, or isolation of known occurrences.

As described in detail above, projections for human population growth extend out to 2030 in Palm Springs (SCAG 2004). Such projections frame our analysis as they help us understand what factors can reasonably be anticipated to meaningfully affect the species’ future conservation status. We updated our original analysis by Anderson and Love (2007, pp. 1–2) to determine rates of habitat loss in southern Palm Springs from 1991 to 2008. During that time, Casey’s June beetle experienced an approximate 22 percent reduction in contiguous, undeveloped habitat from 1,001 ac (405 ha) in 1991 to 777 ac (314 ha) in 2008. Habitat loss was greatest in the 2003 to 2005 time period, and impacts have continued to occur. Habitat has been lost at a rate of 1.6 percent per year from 1991 to 1996, at a rate of 0.6 percent per year from 1996 to 2003, at a rate of 3.8 percent per year from 2003 to 2005, and at a rate of 0.7 percent per year from 2005 to 2008.

In summary, the most significant threat to Casey’s June beetle, as listed in Factor A, is loss of its habitat. This species faces immediate and continuing threats from development of habitat and habitat fragmentation and degradation. At the rate of habitat loss since 1996, we estimate that nearly all remaining upland habitat on private or tribally owned land will be lost by 2020. Additionally, a variety of localized threats factors (which fall under Factors A, D, and E) continue to negatively affect the species (including attraction to artificial light sources, swimming pools, and changes in soil hydrology). Furthermore, as described in Factor D, existing regulatory mechanisms provide little direct protection of Casey’s June beetle habitat, the loss of which is the most significant threat to the species. This single remaining known population may already have reached the point where it is not naturally sustainable and may require management of remaining occupied habitat and population augmentation to prevent extinction.

Therefore, based on the best available scientific and commercial information, we find that Casey’s June beetle is in danger of extinction throughout all of its range. Consequently, we are proposing to list Casey’s June beetle as an endangered species under the Act. Available Conservation Measures

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

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

Federal agency actions within the species’ habitat that may require conference or consultation or both as described in the preceding paragraph include management and any other landscape altering activities on Federal lands administered by the Department of Defense, U.S. Fish and Wildlife Service, and U.S. Forest Service; issuance of section 404 Clean Water Act permits by the U.S. Army Corps of Engineers; leases on Tribal Trust lands that require Bureau of Indian Affairs approval; construction and management of gas pipeline and power line rights-of-way by the Federal Energy Regulatory Commission; and construction and maintenance of roads or highways by the Federal Highway Administration.

The Act and its implementing regulations set forth the general prohibitions and exceptions that apply to all endangered wildlife. The
prohibitions, codified at 50 CFR 17.21 for endangered wildlife, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import, export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving threatened or endangered wildlife species under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 for endangered species. You may obtain permits for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities.

Critical Habitat

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

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

(a) essential to the conservation of the species and

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

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

Conservation, as defined under section 3 of the Act, means the use of all methods and procedures that are necessary to bring any endangered or threatened species to the point at which the measures provided under the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management, such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, transplantation, and in the extraordinary case where population pressures within a given ecosystem cannot otherwise be relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the prohibition against Federal agencies carrying out, funding, or authorizing the destruction or adverse modification of critical habitat. Section 7(a)(2) of the Act requires consultation on Federal actions that may affect critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by private landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the landowner’s obligation is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

For inclusion in a critical habitat designation, habitat within the geographical area occupied by the species at the time it is listed must contain the physical and biological features that are essential to the conservation of a species, and be included only if those features may require special management considerations or protection. Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life-cycle needs of the species (areas on which are found those PCES laid out in the appropriate quantity and spatial arrangement essential to the conservation of the species). We can designate areas outside the geographical area occupied by the species at the time of listing only when we determine that the best available scientific data demonstrate that the designation of such areas are essential for the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act, published in the Federal Register on July 1, 1994 (59 FR 34271), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

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

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that we may eventually determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be required for recovery of the species.

Any areas that support populations, but are outside the critical habitat designations, will continue to be subject to conservation actions Federal agencies implement under section 7(a)(1) of the Act. They are also subject to the regulatory protections afforded by section 9 and the section 7(a)(2) jeopardy standard, as determined on the basis of the best available scientific information at the time of the Federal agency action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other efforts if available information at the time of these planning efforts calls for a different outcome.

Prudence Determination

Section 4(a)(3) of the Act and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, we designate critical habitat at the time a species is determined to be endangered or threatened. Regulations under 50 CFR 424.12(a) state that the designation of
critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other human activity and the identification of critical habitat can be expected to increase the degree of threat to the species; or (2) such designation of critical habitat would not be beneficial to the species.

There is no documentation that disclosing Casey’s June beetle locations would cause harm to this species. Casey’s June beetle locations are already available in public literature, and designation of a critical habitat would not increase risk to this species. Further, we find that there are benefits to a critical habitat designation. The potential benefits include: (1) Triggering consultation under section 7 of the Act and (2) providing education benefits to State or county governments or private entities (which may help to focus conservation efforts and awareness).

The primary regulatory effect of critical habitat is the requirement under section 3(5)(A)(i) of the Act that Federal agencies refrain from taking action that destroys or adversely modifies critical habitat. Casey’s June beetle occurs solely on Agua Caliente Band of Cahuilla Indians land, local government lands, and private lands. Nevertheless, tribal and private lands may be subject to Federal actions that trigger the section 7 consultation process, such as granting Federal monies for conservation projects or the need for a Federal permit for projects subject to section 404 of the Clean Water Act. There may also be some education or information benefits to the designation of critical habitat. Education benefits include the notification of land owners, land managers, and the general public of the importance of protecting the habitat of this species. In the case of Casey’s June beetle, these aspects of critical habitat designation would benefit the conservation of the species. Since we have determined that the designation of critical habitat will not likely increase the degree of human threat to the species and may provide some measure of benefit, we find that designation of critical habitat is prudent for Casey’s June beetle.

Methods

As required by section 4(b) of the Act, we used the best scientific and commercial data available in determining areas that contain the features essential to the conservation of Casey’s June beetle. This includes information from the 90-day finding (71 FR 46406; August 8, 2006) and the 12-month finding (72 FR 36665; July 5, 2007). Information and survey observations published in published peer-reviewed literature and provided in academic theses and agency reports; location data and survey information provided in agency status and monitoring reports and on GIS maps; regional GIS coverages; correspondence (for example, unpublished observations and data) from species experts; and data provided as part of the Coachella Valley MSHCP. Additionally, we reviewed available information about the historical and current distribution, ecology, life history, and habitat requirements for Casey’s June beetle. This included data and reports submitted by species experts; research published in peer-reviewed scientific publications; museum records; technical reports, and unpublished field observations by Service, State, and other experienced biologists; additional notes and communications with qualified biologists and experts; and regional GIS coverages.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to propose as critical habitat, we consider the physical and biological features that are essential to the conservation of the species that may require special management considerations or protection. We consider the physical and biological features to be the PCEs laid out in the appropriate quantity and spatial arrangement essential to the conservation of the species. These include, but are not limited to:

1. Space for individual and population growth and for normal behavior;
2. Food, water, air, light, minerals, or other nutritional or physiological requirements;
3. Cover or shelter;
4. Sites for breeding, reproduction, and rearing (or development) of offspring; and
5. Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions.

We derive the specific PCEs required for Casey’s June beetle from its biological needs.

Space for Individual and Population Growth and for Normal Behavior

Casey’s June beetle is associated with native vegetation of Sonoran (Coloradan) desert scrub located on desert alluvial fans and bajadas at the base of the Santa Rosa Mountains in the Coachella Valley, Riverside County, California. Sonoran desert scrub habitat is characterized as scattered assemblages of broad-leaved microphyll shrubs with an open canopy (Mayer and Laudenslayer 1988, p. 114). The open canopy provides space for male beetles to fly in search of females and fulfill normal life-history activities. This scrub habitat type also provides the microhabitat space inhabited by Casey’s June beetle. Individual shrubs provide refugia for the underground stage of the beetle’s life history, protecting emergence holes from anthropogenic disturbance.

Habitats utilized by Casey’s June beetles are varied as a result of areas that are known to undergo anthropogenic disturbances. In general, the species uses soil surfaces to burrow and deposit eggs. After beetles emerge, emergence holes are easily detectable beneath shrub canopies where they are protected from human activity. However, many emergence holes that occur in the open are apparently destroyed or disturbed by “equestrians, vehicles, and other human activities” (Hovore 2003, p. 3). Therefore, the habitat where subterranean larvae and females waiting on the surface for mates are protected from human impacts is clustered around trees and shrubs where there is intact crustal soil (Hovore 2003, p. 3). These individual shrubs are refugia for the underground and reproductive stages of the beetle’s life history, which protect them from anthropogenic disturbance. The undisturbed soil may not reflect the entire distribution of the emergence holes (the primary indicator of occupancy) because disturbance easily destroys evidence of the hole, but instead represent the remaining intact holes observable following a disturbance (Hovore 2003, p. 3). Individual shrubs also provide the subterranean space required for reproduction and to maintain larval development. See the “Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements” section for more specific information on soil characteristics and nutritional requirements.

In addition to anthropogenic disturbance, Casey’s June beetle habitat undergoes natural disturbance. Palm Canyon Wash experiences intense flooding and scouring about once every 10 years (Cornett 2004, p.14), with turbulence that can excavate and unearth sand where the species may occur (Wright 2003, p.3; NWIS 2008). These events are likely to extirpate Casey’s June beetles from locations within the wash; however, these areas may subsequently be recolonized by beetles from surrounding upland areas or local refugia. It is hypothesized that
the wash serves as a sink area (an area that is often extirpated) for Casey's June beetle (Cornett 2004, p. 14), but wash habitat may also serve as a source area when population densities are high between flooding events. If correct, these concepts indicate the need to conserve both upland and wash habitat to achieve conservation of the species.

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

Vegetation, soil, and climate contribute to the nutritional and physiological requirements of Casey's June beetle. It is hypothesized that beetle larvae feed on organic matter and detritus below ground (Hovore 2003, p. 2; LaRue 2004, p. 1). Observations of adult Casey's June beetles feeding underground have not yet occurred (Hovore 1995, p. 2); however, accumulation of leaves around shrubs contribute to surface litter and subsurface detritus. Additionally, co-occurrences of annual plants and grasses using these desert scrubs as nurse plants or refugia also contribute to surface litter and likely provide an additional food source as radiculum (plant rootlets (LaRue 2004, p. 1, Simpson 1968, p. 500)). Although Casey's June beetle distribution is not likely correlated with the distribution of a specific plant host, proximity of observed emergence holes to Sonoran (Coloradan) desert scrub plants indicate these plants may be important as a direct or indirect food source (Wright 2004, p.6).

The Palm Springs area has slightly higher precipitation than surrounding areas in the eastern Coachella Valley, due to its proximity to the base of the San Jacinto and Santa Rosa Mountains (LaRue 2006, p. 2). This precipitation keeps the underlying soil damp, which is an important component for Casey's June beetle life history because they, like many other subterranean scarab beetles, prefer the interface between surface soil and damp subsoil (Hovore 1995, p. 6; LaRue, 2008, p. 1). The depth of the damp soil is generally between 10 cm (3.94 in) to 20 cm (7.87 in) (Hovore 1995, p. 5) and averages 72 to 78 degrees Fahrenheit (22 to 26 degrees Celsius) (USDA 1980, p. 11). This depth coincides with the depth at which larvae are usually found (5 cm (1.97 in) to 20 cm (7.87 in)) (LaRue 2004, p. 1). Individual scrub plant architecture has developed for maximum capture of precipitation, channeling water along stems to the central root system. Moisture in the soil layer prevents desiccation of larvae and eggs and maintains a constant temperature (LaRue 2008, p. 1). Additionally, areas with higher soil moisture are associated with a higher density of vegetation and microorganisms, such as fungi and bacteria believed to provide a more diverse food source for beetle larvae (LaRue 2008, p. 1).

The Sonoran desert scrub plant community endemic to the Palm Canyon Wash and adjacent terraces also serve to maintain habitat consistency. The Carsitals series soils have a water table located from 2 to 6 ft (0.6 to 1.9 m) deep. Shrubs are important in water and nutrient cycling in desert ecosystems (Sala et al. 1984-1987, pp. 501–505; McAlliffe 1994, pp. 111–148). Desert shrubs have deeper root systems that bring water from lower levels up to higher levels, cycle nutrients through the soil, and mediate diurnal temperature variations. Midday temperatures are lower near the center of desert scrub patches than in areas outside the canopy (Pickett and White 1985, pp. 174–176). The combination of moisture cycling, diurnal temperature variation, and seasonal climate change (Rosenburg 1974, pp. 66–74) may provide beetle larvae with a gradient of micro-environments to inhabit in the subsoil through the year, thereby allowing them to maintain optimal body temperature and humidity levels. Therefore, the precipitation of the Palm Canyon area, and its influence on the local plant community, may be a unique factor critical for Casey's June beetle.

Soils associated with known occurrences of Casey's June beetles are described by Hovore (2003, p. 2) as almost entirely of the Carsitals Series, (CdC), typically gravelly sand, single grain, slightly effervescent, moderately alkaline (pH 8.4), loose, non-sticky and non-plastic, and deposited on 0 to 9 percent slopes. These soils show light braiding and some organic deposition on alluvial terraces and where they occur within washes, although they generally do not receive scouring surface flows (Hovore 2003, p. 2). Additionally, Casey's June beetle is associated with Riverwash (RA) and Carsitals cobble (CdC) series of soils (Anderson 2007, p.1), usually occurring in these soils when they are contiguous with CdC series soil. The CdC type soils may also contain small inclusions of fine or coarse soils, such as Myoma (MaB) fine sand and Coachella (CpA) fine sand (USDA 1980, pp. 11–12, 16, and 23).

Alluvial soil (RA) is also an important component to Casey's June beetle habitat requirements. Organic matter and vegetation may be uprooted, redistributed, and deposited in the wash during low-frequency, high-magnitude floods. Debris deposited by these hydrological processes and periodic flooding are essential to maintain alluvial soils in Palm Canyon Wash and may serve as new or re-conditioned habitat.

Cover or Shelter

The upland terraces and Palm Canyon Wash are the remaining areas known to be inhabited by Casey's June beetle. The upland terraces offer the only known shelter from flooding and scouring events, or ORV impacts since vehicles tend to remain within the wash. Since the Palm Canyon Wash experiences periodic flooding and scouring that is likely to impact the species during flood events, the upland terraces are essential to the conservation of Casey’s June beetle for long-term maintenance of the population because they act as a potential source of females for recolonization of the wash. Systematic surveys in the wash indicate that this area is important to the long-term survival of the species. Both the upland terraces and Palm Canyon Wash contain soil types conducive to burrowing and maintain plant communities that support the nutritional and physiological processes essential for the species.

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

Casey’s June beetle breeding and dispersal mechanisms require specific habitat important to species’ reproduction. Because female Casey’s June beetles are flightless, the species’ breeding system and the ability of females to disperse (which is uncertain but much reduced compared to flight-capable males and likely less than 1,000 ft (305 m)) is restricted geographically to a relatively small area. During breeding, adults of the species are most active at dusk. Females emit pheromones to attract males to burrows for the purposes of mating. Breeding success depends on males’ ability to detect pheromones and ability to maneuver to remain in contact with the pheromone plume (Domek et al. 1999, pp. 271–276). The southern Palm Springs area is surrounded by mountains and ridges that protect the area from the high winds that are frequent in the Coachella Valley (Wright 2004, p.4), thus providing conditions that are conducive to successful male flight, and pheromone detection and tracking. Therefore, successful reproduction depends on shelter provided by the surrounding mountains and ridges.

Dispersal of Casey’s June beetle is also limited by the flightlessness of females. This adaptation significantly hinders this species’ ability to disperse or
recolonize an area. Females appear to emerge from burrows and remain on the surface nearby and then either re-enter these burrows or dig new burrows to lay eggs. If an isolated portion of the population were extirpated, then it would be difficult for females to quickly recolonize that area (Driscoll and Weir 2005, pp. 192–193; de Vries et al. 1996, pp. 332–342) because flightless females disperse by crawling and likely by water flow in wash areas (although it is unclear what the survival rate would be under water flow dispersal). Because male Casey’s June beetles cannot repopulate an area by themselves, and females are flightless, habitat fragmentation and isolation are significant threats to gene flow in this species. Therefore, connectivity of suitable habitats that provides for dispersal over multiple generations is essential to the conservation of the species.

Undisturbed suitable habitat is also essential to Casey’s June beetle. As stated above, the adults of this species burrow in alluvial soils to lay eggs and the larval stages are known to live out this life stage in alluvial soil as well. The presence of undisturbed soil is crucial to Casey’s June beetle. Such artificial, nonnative surfaces as concrete or highly manipulated ornamental landscaping cannot serve the same function as native habitat. Casey’s June beetles are documented to occur in abundance within the residential community of Smoke Tree Ranch (Cornett 2004, Table 1). Cornett (2004, p. 14) hypothesized this abundance could be attributed to the landscape irrigation system in the community (creating high soil moisture), native vegetation landscaping, its location on an upland terrace, and widely spaced houses with open space. Driscoll and Weir (2005, pp. 182–194) reported that habitat fragmentation had a smaller effect on beetle species’ abundance in Australia than patch size in disturbed landscapes, but individual species that were flightless or lived underground were most at-risk from the effects of fragmentation. While undeveloped and undisturbed lands are essential to the survival of Casey’s June beetle, Smoke Tree Ranch represents the largest remaining habitat patch and largest occurrence of the species and may represent a community where the spatial scale of human disturbance or fragmentation can coexist with this species’ occupancy, as Hanski (Hanski et al. 2005, pp. 21–28) models for butterflies.

Habitats Protected from Disturbance or Representative of the Historical, Geographical, and Ecological Distributions of the Species

As stated in the 12-month finding for Casey’s June beetle (72 FR 36635; July 5 2007), all remaining CdC or RA type soils in the southern part of the City of Palm Springs are important for this species’ survival. Because the species is so restricted in its range (due to such factors as loss of suitable habitat and habitat fragmentation) and there has been substantial development throughout its historical range, we consider all occupied habitat, including habitat contiguous with or adjacent to habitat with known occurrences, to contain the physical and biological features essential to the conservation of Casey’s June beetle.

Primary Constituent Elements for Casey’s June beetle

Based on the above needs and our current knowledge of the life history, biology, and ecology of the species, we determined that the Casey’s June beetle PCEs are:

(1) Soils (regardless of disturbance status) of the Carsitas (CdC) gravelly sand soil series, soils of Riverwash (RA) and Carsitas cobblely sand (ChC) series adjacent and contiguous with CdC soil, and small inclusions of Myoma (MaB) and Coachella (CpA) fine sands adjacent to CdC soil, at or below 640 ft (195 m) in elevation associated with washes and alluvial fans deposited on 0 to 9 percent slopes providing space for population growth and reproduction, moisture, and food sources.

(2) Intact, native Sonoran (Coloradan) desert scrub vegetation and native desert wash vegetation that provide shelter and food for the species.

With this proposed designation of critical habitat, we define the physical and biological features that are essential to the conservation of the species through the identification of the appropriate quantity and spatial arrangement of the PCEs sufficient to support the life-history functions of the species. Because not all life-history functions require all the PCEs, there may be areas within the critical habitat unit that will not contain all of the PCEs. We are proposing one unit for designation based on sufficient PCEs being present to support at least one of the species’ life-history functions.

Special Management Considerations or Protection

When designating critical habitat within the geographical area occupied by the species, we assess whether the physical and biological features essential to the conservation of the species may require special management considerations or protection. Major threats to Casey’s June beetle include (1) habitat disturbance; (2) habitat loss and fragmentation associated with development (such as grading, building roads and other infrastructure, and constructing commercial and residential structures); and (3) recreational activities (for example, ORV use and equestrian activities) as described in Factor A of the “Summary of Factors Affecting the Species” section, above.

Anderson and Love (2007) examined the rate of habitat loss since 1996, and additional analyses identified continuing habitat loss over the last two years. Because Casey’s June beetle is now restricted to a relatively small area as compared to its probable historical range, and habitat fragmentation is a threat to the long-term viability of Casey’s June beetle, special management considerations or protection of the essential physical and biological features may be needed to address development or urban expansion impacts. Local government planning departments should eliminate urban expansion within or adjacent to Casey’s June beetle habitat and provide linkage corridors between habitat patches to address the protection necessary for this species at this time. Preserving habitat and corridors linking habitat patches have been shown to be vital landscape elements for the conservation of species.

Localized, small-scale impacts and incremental human disturbance, such as ORV activities, may have an insidious, cumulative impact on the essential features of Casey’s June beetle habitat. The Service, in cooperation with local governments, can work to establish habitat restoration programs and restrict, fence, or post areas with signs to reduce land disturbance. Additionally, special management considerations or protection of the essential features may be needed to minimize the impacts of development or urban expansion to Casey’s June beetle habitat. Designing open areas, maintaining or planting native vegetation, and irrigation appropriate for the vegetation, may be important programs for the conservation of this species. This should also include a program to monitor ongoing habitat loss and disturbance, and invasive plants. Management and monitoring plans could provide a uniform set of guidelines to assist local governments in this effort. However, habitat management guides and plans are
voluntary and may not provide for the long-term conservation of the species.

**Criteria Used To Identify Critical Habitat**

As required by section 4(b)(1)(A) of the Act, we use the best scientific and commercial data available in determining the specific areas within the geographical area occupied by the species that contain the features essential to the conservation of species which may require special management considerations or protection, as well as when determining if any specific areas outside the geographical area occupied by the species are essential for the conservation of the species. We only designate areas outside the geographical area occupied by a species when the Secretary determines that a designation limited to a species' present range would be inadequate to ensure the conservation of the species (50 CFR 424.12(e)). For Casey's June beetle, we limited proposed critical habitat to the present range of the species, because the only potentially suitable habitat outside the present range occurs in small, disjunct areas that are remote in relation to the proposed critical habitat. It is unlikely that the flightless females would be able to reach these small, isolated areas, and we believe these locations would be population sinks due to their remoteness if Casey's June beetle was artificially introduced. We are proposing to designate critical habitat in areas that we determined are occupied and contain the physical and biological features essential to the conservation of the species.

We consider all known occurrences of Casey's June beetle to constitute a single population based on currently available data. However, additional studies are needed to confirm this assumption. Because of the limitations of surveys to detect insect occupancy, the population level is the appropriate scale at which to determine occupancy of areas proposed as critical habitat. Although an area may be occupied by Casey's June beetles at the population distribution scale, light-trapping surveys to detect male presence during a given flight season may not have detected any individuals, either because they were at low densities, or because environmental conditions were not suitable for beetle activity. Although no formal data, such as a genetic analysis, has indicated all known occupied areas are within the same population distribution, we assume they are, based on the potential for male movement among sites that contain the constituent elements. Additionally, we assume all suitable habitat areas are occupied adjacent and intermediate to areas where Casey's June beetle has been detected based on appropriate PCEs in place and dispersal capabilities of males during flight season, with reasonable potential for male movement throughout all areas delineated as critical habitat. Therefore, all areas we are proposing to designate as critical habitat are considered to be currently occupied.

We used the following data to delineate critical habitat: (1) Areas known to be occupied recently (1995–present); (2) all adjacent areas contiguous with occupied sites and on CdC soils or RA, ChC, MaB, and CpA soils when adjacent to CdC soils; (3) areas below 640 ft (195 m) in elevation (within 100 meters of the highest known elevation of an occurrence); (4) land dominated by native vegetation, but may contain some nonnative vegetation; and (5) areas that provide connectivity between occurrences (when possible) to provide for dispersal, recolonization, and genetic exchange. We also used information in our files and referred to expert opinion from Service biologists and outside experts who are knowledgeable about the species. The proposed critical habitat is designed to capture observed occurrences of Casey's June beetles and the soils and native vegetation needed for its long-term conservation.

We delineated the proposed critical habitat boundaries using the following steps:

(1) We mapped observations of Casey's June beetles from Bruyeea (2006), Cornett (2004), Hovore (1997), Hovore (1995), Powell (2003), and Simonsen-Marchant (2000, 2001). These records were initially mapped over digital aerial photographs of the Palm Canyon area in Palm Springs, California, acquired in June 2005 with a ground resolution of 3.28 ft (1 m). We believe these surveys are the best available data on Casey's June beetle distribution, accurately depict the best location of known occurrences within the species' range, and provide a logical starting point for the delineation of critical habitat.

(2) We incorporated digital soil data produced by the USDA Natural Resources Conservation Service for all soils in the Palm Canyon area. This data delineated CdC (Carpitas gravelly sand), RA (Riverwash), ChC (Carpitas cobbley sand), MaB (Myoma fine sand) and CpA (Coachella fine sand) soils. We selected areas where the CdC soils were adjacent to one of the other soil series and contiguous with occupied habitat. This mapping delineated the soils that are suitable for, and assumed occupied by, the beetle.

(3) After mapping the soils, we examined the elevations of all Casey's June beetle observations. Because the beetle is vulnerable to scouring flows that occur during rain events in washes at higher elevations, the species is normally found at elevations less susceptible to heavy water flows. We determined the highest elevation of an occurrence was 540 ft (165 m), and we extended the boundary elevation 100 ft (30.5 m) to account for soil gradients and any occurrences that may have not been observed. As a result, we are proposing as critical habitat the area below the 640 ft (195 m) contour with the best locations of known occurrences within the species' range and the appropriate soils.

(4) We utilized digital aerial photographs acquired in April 2008 with a ground resolution of 6 in (15 cm) to closely examine the area below the 640 ft (195 m) contour and ensure it captured the PCEs necessary to support life-history functions essential to the conservation of Casey's June beetle. Specifically, we removed areas that did not have native vegetation (such as golf course greens) or contained large denuded or graded areas to eliminate areas that likely do not and could not support Casey's June beetles.

(5) We added connective corridors between known occurrences to help address habitat fragmentation between segments of the population, which is a substantive threat to the species. As a result, we included undeveloped areas that contain suitable habitat (native vegetation and appropriate soils as identified above) to provide connectivity between known occurrences of Casey's June beetles.

When determining proposed critical habitat boundaries within this proposed rule, we made every effort to avoid including developed areas, such as lands covered by buildings, pavement, and other structures, because such lands lack essential features for Casey's June beetle. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed critical habitat are excluded by text in this proposed rule. Therefore, when the critical habitat designation is finalized, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action may affect adjacent critical habitat.
Proposed Critical Habitat Designation

We are proposing one unit as critical habitat that encompasses the geographical area occupied by the species and totals 777 ac (314 ha). The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for Casey’s June beetle.

The approximate area of proposed critical habitat for Casey’s June beetle totals 777 ac (314 ha), including 343 ac (139 ha) of tribal land, 111 ac (45 ha) of local government land, and 323 ac (131 ha) of private land. Area estimates reflect all land within the proposed critical habitat unit boundaries. Acre and hectare values were computer-generated using GIS software, rounded to nearest whole number, and then summed.

We present a brief unit description below and reasons why it meets the definition of critical habitat for Casey’s June beetle. The unit is located in Riverside County, California, and extends from the confluence of Andreas Canyon Wash with Palm Canyon Wash northward along the toe of slope west of South Palm Canyon Drive to Murray Canyon Drive and northeastward (downstream) along Palm Canyon Wash, crossing East Palm Canyon Drive to South Gene Autry Trail.

The critical habitat unit consists of approximately 777 ac (314 ha) considered occupied by Casey’s June beetle. The Unit includes areas west of South Palm Canyon Drive, Palm Canyon Wash, and Smoke Tree Ranch, and two areas east of Palm Canyon Wash and south of East Palm Canyon Drive. This unit contains all of the physical and biological features essential to the conservation of the species (PCEs 1 and 2), including alluvial soils of the CdC, RA, ChC, MaB and CpA soil series with Sonoran desert scrub and desert wash vegetation.

Habitat in the unit is threatened by development, persistent recreational activity, and periodic flash flooding. Specifically, urban expansion, in-fill development, and recreational activities continue to result in the loss of habitat on tribal and private land. Therefore, the features essential to the conservation of the species in this unit likely require special management considerations or protection to minimize impacts resulting from these threats (see “Special Management Considerations” section above).

Approximately 45 percent of this unit is on Agua Caliente Band of Cahuilla Indians land and the Agua Caliente Band of Cahuilla Indians removed the species from their proposed HCP and thus from consideration under existing development agreements with the local jurisdictions as of October 28, 2008 (ACBCI 2008, p. 1). Because the Agua Caliente Band of Cahuilla Indians has indicated that they are not planning to manage Casey’s June beetle habitat, we determined that it is appropriate to include the tribal lands in the proposed critical habitat unit. However, we recognize the importance of Government-to-Government relationships with Tribes, and we are seeking public comment on the appropriateness of the inclusion of these lands in the final critical habitat designation (see “Public Comments” section above).

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify designated critical habitat. Decisions by the Fifth and Ninth Circuit Courts of Appeals have invalidated our definition of “destruction or adverse modification” (50 CFR 402.02) (see Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service, 378 F. 3d 1059 (Ninth Cir. 2004) and Sierra Club v. U.S. Fish and Wildlife Service et al., 245 F.3d 434, 442F (Fifth Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional to serve its intended conservation role for the species.

Under section 7(a)(2) of the Act, if a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

1. A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
2. A biological opinion for Federal actions that are likely to adversely affect listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define “Reasonable and prudent alternatives” at 50 CFR 402.02 as alternative actions identified during consultation that:

• Can be implemented in a manner consistent with the intended purpose of the action,
• Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,
• Are economically and technologically feasible, and
• Would, in the Director’s opinion, avoid jeopardizing the continued existence of the listed species or destroying or adversely modifying critical habitat.

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

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

Federal activities that may affect Casey’s June beetle or its designated critical habitat will require section 7(a)(2) consultation under the Act. Activities on State, tribal, local or private lands requiring a Federal permit (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) are examples of agency actions that may be subject to the section 7(a)(2) consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, tribal,
local or private lands that are not federally funded, authorized, or permitted, do not require section 7(a)(2) consultations.

Application of the “Adverse Modification” Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for Casey’s June beetle. Generally, the conservation role of Casey’s June beetle’s critical habitat unit is to support a viable self-sustaining population of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore should result in consultation for Casey’s June beetle include (but are not limited to) habitat disturbance, loss and fragmentation associated with development (for example, grading, building roads and other infrastructure, and constructing commercial and residential structures) and recreational activities (for example, ORV use and equestrian activities). Please see “Special Management Considerations or Protection” section for a more detailed discussion on the impacts of these actions to the listed species.

Exemptions and Exclusions

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

Section 4(b)(2) of the Act states that the Secretary must designate and revise critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the legislative history is clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we must consider various factors in making a critical habitat designation. For example, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. We also consider whether landowners having proposed critical habitat on their lands have developed any conservation plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social or other impacts that might occur because of the designation.

There are no HCPs or other management plans that we are considering for exclusion under section 4(b)(2) of the Act. The Agua Caliente Band of Cahuilla Indians prepared and submitted a draft HCP to the Service, which has undergone public review in accordance with the Act and the National Environmental Policy Act. Although the Casey’s June Beetle was proposed as a “Covered Species” in the draft HCP, the tribe informed the Carlsbad Fish and Wildlife Office that they have “decided to remove Casey’s June beetle from the list of species for which it is seeking take authority under its Tribal Habitat Conservation” plan (ACBCI 2008, p. 1). In discussions regarding preparation of our final permit decision documents for the HCP, we have asked the tribe to reconsider their decision, and we continue to work with them to address Casey’s June beetle and other species impacted by land development activities on their tribal lands. Casey’s June beetle is also not a covered species under the recently permitted Coachella Valley MSHCP. Therefore, the areas covered by these HCP efforts are not currently being considered or proposed for exclusion under section 4(b)(2) of the Act.

In preparing this proposed rule, we determined that the lands within the proposed designation of critical habitat for Casey’s June beetle are not owned or managed by the Department of Defense and there are currently no HCPs for Casey’s June beetle. At this time, we have not identified areas for which the benefits of exclusion outweigh the benefits of inclusion; therefore, we are not identifying any specific proposed exclusions for the designation of critical habitat for Casey’s June beetle.

Economics

Under section 4(b)(2) of the Act, we must also consider economic impacts. We are preparing an analysis of the economic impacts of this proposed designation of critical habitat for Casey’s June beetle. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at http://www.regulations.gov, or by contacting the Carlsbad Fish and Wildlife Office directly (see ADDRESSES section). We may exclude areas from the final rule based on the information in the economic analysis.

Peer Review

In accordance with our joint policy published in the Federal Register on July 1, 1994 (59 FR 34270), we are obtaining the expert opinions of at least three appropriate independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our proposed rule is based on scientifically sound data, assumptions, and analyses. We invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed rule.

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

Public Hearings

The Act provides for one or more public hearings on this proposal, if we receive any requests for hearings. We must receive your request for a public hearing within 45 days after the date of this Federal Register publication. Send your request to the person named in FOR FURTHER INFORMATION CONTACT. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the Federal Register and local newspapers at least 15 days before the first hearing.

Required Determinations

Regulatory Planning and Review-Executive Order 12866

The Office of Management and Budget (OMB) has determined that this proposed rule is not significant and has not reviewed this proposed rule under
Executive Order (E.O.) 12866. OMB bases its determination upon the following four criteria:

(1) Whether the rule will have an annual effect of $100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government.

(2) Whether the rule will create inconsistencies with other Federal agencies’ actions.

(3) Whether the rule will materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.

(4) Whether the rule raises novel legal or policy issues.

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

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

At this time, we lack the available economic information necessary for the areas being proposed to provide an adequate factual basis for the required RFA finding. Therefore, we defer the RFA finding until completion of the draft economic analysis prepared under section 4(b)(2) of the Act and E.O. 12866. The draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, we will announce its availability in the Federal Register and reopen the public comment period for the proposed designation. We will include with this announcement, as appropriate, an initial regulatory flexibility analysis or a certification that the proposed critical habitat designation will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination. We have concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that we make a sufficiently informed determination based on adequate economic information and provide the necessary opportunity for public comment.

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

In accordance with the Unfunded Mandates Reform Act, we make the following findings:

(1) This critical habitat designation will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or Tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program.”

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

(2) We do not expect this critical habitat designation to significantly or uniquely affect small governments. Small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. Therefore, a Small Government Agency Plan is not required. However, as we conduct our economic analysis for the proposed critical habitat designation, we will further evaluate this issue and revise this assessment if appropriate.

Takings – Executive Order 12630

In accordance with E.O. 12630 (“Government Actions and Interference with Constitutionally Protected Private Property Rights”), we have analyzed the potential takings implications of designating critical habitat for Casey’s June beetle in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for Casey’s June beetle does not pose significant takings implications for lands within or affected by the proposed designation.

Federalism – Executive Order 13132

In accordance with E.O. 13132 (Federalism), the proposed critical habitat designation does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in California. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the primary constituent elements of
the habitat necessary to the conservation of Casey’s June beetle are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

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

Civil Justice Reform – Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), it has been determined that the proposed critical habitat designation does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed critical habitat in accordance with the provisions of the Act. This proposed critical habitat designation uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of Casey’s June beetle.

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

This proposed rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995. The rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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

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

Clarity of the Rule

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

1. Be logically organized;
2. Use the active voice to address readers directly;
3. Use clear language rather than jargon;
4. Be divided into short sections and sentences; and
5. Use lists and tables wherever possible.

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

Government-to-Government Relationship with Tribes

In accordance with the President’s memorandum of April 29, 1994, Government-to-Government Relations with Native American Tribal Governments (59 FR 22951); Executive Order 13175; and the relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2), we will continue to coordinate with the tribe during the designation process.

Energy Supply, Distribution, or Use – Executive Order 13211

E.O. 13211 requires Federal agencies to prepare Statements of Energy Effects when undertaking certain actions. Because there are no energy or distribution facilities within the area proposed as critical habitat, we do not expect it to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

References Cited

A complete list of all references cited in this rulemaking is available on http://www.regulations.gov and upon request from the Field Supervisor, Carlsbad Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT section).

Author

The primary author of this notice is staff from the Carlsbad Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT section).
List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

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


2. In §17.11(h) add an entry for “Beetle, Casey’s June” in alphabetical order under “INSECTS,” to the List of Threatened and Endangered Wildlife, to read as follows:

§17.11 Endangered and threatened wildlife.

(h) * * * *

3. In §17.95, amend paragraph (d) by adding an entry for “Casey’s June beetle (Dinacoma caseyi),” in the same alphabetical order that the species appears in the table at §17.11(h), to read as follows:

§17.95 Critical habitat—fish and wildlife.

(d) Insects.

Casey’s June Beetle (Dinacoma caseyi)

(1) The critical habitat unit is depicted for Riverside County in California on the map below.

(2) Within this area, the primary constituent elements of critical habitat for Casey’s June beetle are the habitat components that provide:

(a) Soils (regardless of disturbance status) of the Carsitas (CdC) gravelly sand soil series, soils of Riverwash (RA) and Carsitas cobbly sand (ChC) series adjacent and contiguous with CdC soil, and small inclusions of Myoma (MaB) and Coachella (CpA) fine sands adjacent to CdC soil, at or below 640 ft (195 m) in elevation associated with washes and alluvial fans deposited on 0 to 9 percent slopes providing space for population growth and reproduction, moisture, and food sources.

(b) Intact, native Sonoran (Coloradan) desert scrub vegetation and native desert wash vegetation that provide shelter and food for the species.

(3) Critical habitat does not include lands covered by man-made structures, such as buildings, aqueducts, airports, and roads, existing on the effective date of this rule and not containing one or more of the primary constituent elements.

(4) Critical habitat map unit. Data layers defining the map unit were created on a base of USGS 7.5’ quadrangles, and the critical habitat unit was then mapped using Universal Transverse Mercator (UTM) coordinates zone 11, North American Datum (NAD) 1983 coordinates.

(5) Note: Map of critical habitat for Casey’s June beetle follows:

BILLING CODE 4310–55–S
Critical Habitat for Casey's June Beetle (Dinacoma caseyi) Unit, Riverside County, California

Dated: June 19, 2009

Jane Lyder,
Deputy Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. E9–16282 Filed 7–8–09; 8:45 am]

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