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Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Astragalus lentiginosus var. coachellae; Proposed Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2011–0064; MO 92210–0–0009]

RIN 1018–AX40

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Astragalus lentiginosus var. coachellae

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to revise designated critical habitat for *Astragalus lentiginosus* var. *coachellae* (Coachella Valley milk-vetch) under the Endangered Species Act of 1973, as amended (Act). In total, we are proposing approximately 25,704 acres (10,402 hectares) as critical habitat for this taxon in Riverside County, California.

DATES: We will accept comments received or postmarked on or before October 24, 2011. We must receive requests for public hearings, in writing, at the address shown in the **FOR FURTHER INFORMATION CONTACT** section by October 11, 2011.

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

(1) *Electronically:* Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* Search for Docket No. FWS–R8–ES–2011–0064, which is the docket number for this rulemaking.

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R8–ES–2011–0064; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

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).

FOR FURTHER INFORMATION CONTACT: Jim Bartel, Field Supervisor, U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office, 6010 Hidden Valley Rd., Ste. 101, Carlsbad, CA 92011; telephone 760–431–9440; facsimile 760–431–5902. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Public Comments

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

(1) The reasons why we should or should not designate particular habitat as ''critical habitat'' under section 4 of the Act (16 U.S.C. 1531 *et seq.*) including whether there are threats to the taxon (the term taxon, as used herein, refers to any taxonomic rank that is not a species (for example, a genus, a subspecies, or a variety); *Astragalus lentiginosus* var. *coachellae* is a variety) 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 may not be prudent.

(2) Specific information on:

(a) The amount and distribution of *Astragalus lentiginosus* var. *coachellae* habitat;

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

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

(d) What areas, that were not occupied at the time of listing, are essential for the conservation of the taxon and why.

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

(4) Information on the projected and reasonably likely impacts associated with climate change on *Astragalus lentiginosus* var. *coachellae* and proposed critical habitat.

(5) What areas, extent, and quality of the unoccupied fluvial (water) sand transport systems in the Coachella Valley and surrounding hills and mountains are essential to the conservation of *Astragalus lentiginosus* var. *coachellae* and should be included in the designation and why.

(6) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation; in particular, any impacts on small entities, families, or tribes, and the benefits of including or excluding areas that exhibit these impacts.

(7) Which specific areas within tribal lands proposed for critical habitat should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific tribal lands outweigh the benefits of including that area, in particular for tribal lands owned or managed by the Morongo Band of Mission Indians (formerly the Morongo Band of Cahuilla Mission Indians of the Morongo Reservation) or the Agua Caliente Band of Cahuilla Indians of the Agua Caliente Indian Reservation.

(8) Which specific lands covered by the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan (Coachella Valley MSHCP/NCCP) proposed as critical habitat should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area covered by the Coachella Valley MSHCP/NCCP outweigh the benefits of including that area. We are currently considering all lands covered by the Coachella Valley MSHCP/NCCP and proposed as critical habitat for exclusion under section 4(b)(2) of the Act (see the *Habitat Conservation Plan Lands—Exclusions under Section 4(b)(2) of the Act* section below).

(9) What specific actions the Coachella Valley Association of Governments (CVAG) has undertaken to meet the objectives and goals set out in the Coachella Valley MSHCP/NCCP specific to *Astragalus lentiginosus* var. *coachellae* since CVAG began implementing the MSHCP/NCCP.

(10) Whether there are any other lands covered by habitat conservation plans or other conservation actions that benefit *Astragalus lentiginosus* var. *coachellae* and should be considered for exclusion under section 4(b)(2) of the Act, where the benefits of potentially excluding any specific area outweigh the benefits of including that area.

(11) 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.

(12) The validity of our approach for determining the extent of the fluvial sand transport system, and differentiating between fluvial sand transport and fluvial sand source areas. We identified fluvial sand source areas (areas where sediment is eroded from

parent rock by moving water) as portions of drainages where slope is 10 percent or greater and fluvial sand transport areas (corridors along which water transports sediment, but little erosion of parent rock takes place) as portions of drainages where slope is less than 10 percent. This approach was informed by Griffiths *et al.* (2002, p. 21), who found that sediment production in the drainage areas supplying sand to *Astragalus lentiginosus* var. *coachellae* habitat is much lower in areas where the ground slope is less than 10 percent.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We request that you send comments only by the methods described in the **ADDRESSES** section. We will post your entire comment—including your personal identifying information—on *http://www.regulations.gov.* You may request at the top of your document that we withhold personal information such as your street address, phone number, or e-mail address from public review; however, we cannot guarantee that we will be able to do so.

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

Background

It is our intent to discuss only those topics directly relevant to the revised designation of critical habitat for *Astragalus lentiginosus* var. *coachellae* in this proposed rule. A summary of topics relevant to this proposed rule is provided below. For more information on *A. l.* var. *coachellae,* refer to the final listing rule published in the **Federal Register** on October 6, 1998 (63 FR 53596), and the designation of critical habitat for *A. l.* var. *coachellae* published in the **Federal Register** on December 14, 2005 (70 FR 74112). Additionally, information on this taxon may be found in the 5-year review for *A. l.* var. *coachellae* signed on September 1, 2009, which is available on our Web site at: *http://www.fws.gov/carlsbad/.*

Description of the Taxon

Astragalus lentiginosus var. *coachellae* is a member of the Fabaceae (pea family). It is one of the 36 varieties of *Astragalus lentiginosus* that collectively range from desert to timberline in North America (Barneby 1964, pp. 911–958). Coachella Valley milk-vetch was originally described by Rupert C. Barneby as *A. l.* var. *coulteri* based on a specimen collected in 1913 by Alice Eastwood in Palm Springs, California (Barneby 1945, p. 129). However, the name had previously been published for another milk-vetch, and consequently Barneby published a new, and currently accepted, name of *A. l.* var. *coachellae* (Barneby 1964, p. 695). It is an erect winter annual or short-lived perennial, 4 to 12 inches (in) (10 to 30 centimeters (cm)) tall and densely covered with short, white-silky hairs, giving it a silvery appearance. The flowers are deep purple to violet, in a loose or dense 13- to 25-flowered raceme (an inflorescence in which stalked flowers are arranged singly along a central stem). The two-chambered fruits are greatly inflated (Spellenberg 1993, pp. 597–598).

Taxon Biology and Life History

Astragalus lentiginosus var. *coachellae* cohorts (a group of individuals of the same age, recruited into the population at the same time (Lincoln *et al.* 2003, p. 64)) may have different life histories, depending on rainfall and climatic conditions. Occurrences of plants can consist of both reproductive annuals as well as perennials (facultative perennial), and the number of individuals in an area can fluctuate yearly (Meinke *et al.* 2007, p. 6). *Astragalus lentiginosus* var. *coachellae* seeds germinate between fall and early winter (Meinke *et al.* 2007, p. 46). Seasonally dormant root crowns (the point at which the root system and stem of a plant meet) of perennial plants produce new shoots between December and January. Second-year plants can begin to flower as early as December, while plants in their first year usually do not flower until January or February. Flowering continues into April (Meinke *et al.* 2007, p. 6).

Astragalus lentiginosus var. *coachellae* is an outcrosser (a plant that typically cross-pollinates) and is dependent on pollinators. While there are studies that show the plant is able to self-pollinate and generate viable seeds, *A. l.* var. *coachellae* is only marginally reproductively successful without pollinators and produces seed at very low rates. Meinke *et al.* (2007, p. 36) performed a pollinator exclusion study and found that only 2 fruits containing 11 seeds total were produced from 144 flowers limited to self-pollination, compared to 72 fruits containing 596 seeds total produced by 138 flowers left open to insect pollination. Additionally, Mazer and Travers (1992) found that a related variety, *A. l.* var. *piscinensis,* is incapable of autogamy (self-fertilization) and reliant on pollinators. The presence of pollinators vastly improves the success of pollination and the abundance of seed produced by *A. l.* var. *coachellae* plants (Meinke *et al.* 2007, p. 36).

Based on field observations, the primary pollinators of *Astragalus lentiginosus* var. *coachellae* in many instances appear to be nonnative honeybees (*Apis mellifera*) (Meinke *et al.* 2007, p. 36). Meinke *et al.* (2007, p. 36) observed that less than 1 percent of pollinator visits to *A. l.* var. *coachellae* plants were made by native bees (not identified; possibly a species of *Anthidium*); all other pollinator visits were made by nonnative honeybees. We presume the natural pollinator(s) of *A. l.* var. *coachellae* are native insects, most likely native solitary bees, because other varieties of *Astragalus lentiginosus* are known to have solitary bees as their major or essential pollinators (Burks 1979, p. 850; Mazer and Travers 1992, p. 18).

Fruits of *Astragalus lentiginosus* var. *coachellae* are inflated (contain pockets of air as opposed to being flat or compact); this adaptation makes the fruits suited to dispersal by wind when dry (Meinke *et al.* 2007, p. 40), which facilitates gene flow between populations. Insect predation, disease, and mammal herbivory destroy many seeds, leaving the viable seed set as only about 25 percent of the total number of fruits produced (Meinke *et al.* 2007, p. 43). As summer progresses and seed is set, the plants may die or aerial stems may die back. Plants may persist through the fall as dormant root crowns (Meinke *et al.* 2007, p. 6).

Meinke *et al.* (2007, p. 31) observed that the proportion of plants surviving the summer and fall is dependent upon climatic conditions. Although they survive a second year, *Astragalus lentiginosus* var. *coachellae* are generally not long-lived (Meinke *et al.* 2007, p. 33). Plants in the northwestern portion of the range, where rainfall is higher, are more likely than those farther southeast to survive into their second year or longer. Plants that occur in the southeastern extent of the range, which receives less rain, are primarily annuals (Meinke *et al.* 2007, p. 31).

Astragalus lentiginosus var. *coachellae* populations can survive and persist in prolonged drought as dormant seeds in the soil (seed bank) (Sanders and Thomas Olsen Associates 1996, p. 3). Therefore, visible, above-ground plants, which may not be evident at a site each year, are only a partial indication of population size. The

extent of time that the seeds are viable in the soil is not known, although studies on *A. l.* var. *micans* (freckled milk-vetch) demonstrate that buried seeds can germinate after a period of up to 8 years (Pavlik 1987, p. 317). Suitable habitat that lacks above-ground individuals may sustain the taxon through one or more dry years as an undetectable seed bank and dormant root crowns. Therefore, appropriate habitat that lacks above-ground individuals may be important to the long-term survival of *A. l.* var. *coachellae.*

Habitat

Astragalus lentiginosus var. *coachellae* is strongly associated with active, stabilized, ephemeral, and shielded sandy substrates in the Coachella Valley, Riverside County, California (Sanders and Thomas Olsen Associates 1996, p. 3; Barrows and Allen 2007, p. 323). This taxon is primarily found on loose aeolian (wind transported) or fluvial (water transported) sands that form dunes or sand fields, and along margins of sandy washes (Sanders and Thomas Olsen Associates 1996, p. 3).

Most of the sand in the northern Coachella Valley is derived from drainages within the Indio Hills, the San Bernardino Mountains, the Little San Bernardino Mountains, and the San Jacinto Mountains. This sand is moved into and through the valley by the sand transport system. The sand transport system consists of two main parts: (1) The fluvial (water) portion (headwaters, tributaries, and the stream channels within the various drainages surrounding Coachella Valley), and (2) the aeolian (wind) portion (predominantly westerly and northwesterly winds moving through the valley) (Griffiths *et al.* 2002, pp. 5–7). The fluvial and aeolian portions of the systems are capable of moving sand until the velocity of the water or wind decreases to a point that sand is deposited. Both portions of the system are subdivided into three components: source areas, transport areas, and depositional areas.

Fluvial Portion of the Sand Transport System

The water that forms the basis of the fluvial portion of the sand transport system in the Coachella Valley enters the system as precipitation during storm events (Griffiths *et al.* 2002, p. 5). These storm events cause flash flooding, which facilitates the erosion that generates sediment, and moves that sediment downstream in ephemeral streams and washes and eventually into the aeolian transport corridor. Most flooding events only transport small amounts of sediment to the valley floor; flooding events large enough to move large amounts of sediment are very infrequent (for example, the last large flooding event on the Whitewater River occurred in 1938) (Griffiths *et al.* 2002, p. 5).

Fluvial Sand Source Areas

Fluvial source areas are the areas where sediment is generated. In these areas, sediment is eroded from parent rock or sediment deposits and is carried downstream by moving water, which continues to erode rock and generate sediment until it reaches the fluvial transport area. This process occurs mainly in the hills and mountains surrounding Coachella Valley in areas of high relief (greater than 10 percent slope). However, in the Indio Hills/Thousand Palms area (which contains proposed Unit 4 of critical habitat, as described in the Proposed Critical Habitat Designation section below), the fluvial source area consists of alluvial deposits (sand, silt, clay, gravel, or other matter deposited by flowing water) at the base of the Indio Hills. Large episodic floods move sediment trapped in the alluvial deposits into an alluvial fan (a fan-shaped alluvial deposit formed by a stream where its velocity is abruptly decreased), from which the sediment can be transported by wind (Lancaster *et al.* 1993, p. 28). Fluvial sand source areas do not provide habitat for *Astragalus lentiginosus* var. *coachellae* and therefore are not considered to be within the geographical area occupied by the taxon at the time of listing.

Fluvial Sand Transport Areas

The fluvial transport areas are stream channels that convey the sediment generated in fluvial source areas downstream to fluvial depositional areas. Very little erosion of parent rock or sediment deposits takes place in fluvial transport areas compared to fluvial source areas. Fluvial sand transport areas are generally portions of drainages where the slope is less than 10 percent. Fluvial transport channels include portions of the lower reaches of Mission Creek, Morongo Wash, Whitewater River, San Gorgonio River, and Snow Creek (upstream portions of these waterways are considered fluvial source areas because the higher ground slope in these areas allows for erosion/generation of sediment). Fluvial sand transport areas do not provide habitat for *Astragalus lentiginosus* var. *coachellae* and therefore are not considered to be within the geographical area occupied by the taxon at the time of listing.

Fluvial Sand Depositional Areas

The fluvial sand depositional areas are broad, flat, depositional plains or channel terraces where sediment carried by fluvial transport channels is deposited (Griffiths *et al.* 2002, p. 5). During larger flood events, sediment can be deposited on bajada (large, coalescing alluvial fans) surfaces as floodplain deposits. There are four main fluvial sand depositional areas in the Coachella Valley: (1) In the Snow Creek/Windy Point area, which receives sediment from the San Gorgonio River and Snow Creek; (2) in the Whitewater Floodplain area, which receives sediment from the Whitewater River; (3) in the Willow Hole area, which receives sediment from Mission Creek and Morongo Wash; and (4) in the Thousand Palms area, which receives sediment from washes associated with drainages originating in the Indio Hills. These four main fluvial sand depositional areas do provide habitat for *Astragalus lentiginosus* var. *coachellae,* are currently occupied, and were occupied by the taxon at the time of listing.

Aeolian Portion of the Sand Transport System

The aeolian portion of the sand transport system begins where the fluvial portion of the system ends. Northerly and northwesterly winds pick up sand-sized grains of sediment accumulated in fluvial depositional areas, and carry them south/southeast through the valley and into aeolian depositional areas where they form sand fields and dunes (Griffiths *et al.* 2002, p. 7).

Aeolian Sand Source Areas

Aeolian sand source areas are the portions of the fluvial depositional areas that are subject to wind erosion. Winds erode these sediment accumulations and carry sand across aeolian sand transport areas. Between flooding events, which replenish the sediment in fluvial depositional areas, sand available for aeolian transport can be depleted by wind erosion. Figure 6B in Griffiths *et al.* (2002, p. 25) shows the aeolian sand source areas (fluvial depositional areas) associated with the San Gorgonio River, the Whitewater River, and Mission Creek and Morongo Wash. Aeolian sand source areas provide habitat for *Astragalus lentiginosus* var. *coachellae,* are currently occupied, and were occupied by the taxon at the time of listing.

Aeolian Sand Transport Areas

Sand eroded from the aeolian sand source areas is blown into and across the aeolian sand transport areas. Sand may accumulate in aeolian transport areas when ample sand is available in upwind source areas; conversely, aeolian transport areas may be depleted of sand when sand is lacking upwind. Figure 6B in Griffiths *et al.* (2002, p. 25) shows the aeolian sand transport areas for the portions of the sand transport system associated with the San Gorgonio River, the Whitewater River, and Mission Creek and Morongo Wash. Aeolian sand transport areas provide habitat for *Astragalus lentiginosus* var. *coachellae,* are currently occupied, and were occupied by the taxon at the time of listing.

Aeolian Sand Depositional Areas

Sand carried by wind through the sand transport areas is deposited when the velocity of the wind decreases sufficiently. This occurs mainly where wind is slowed by vegetation (for example, honey mesquite in the Willow Hole area), other objects, or geological features. In general, sand formations (for example, sand dunes and sand fields) persist in depositional areas, whereas sand accumulations in transport areas are more ephemeral. Aeolian sand depositional areas provide habitat for *Astragalus lentiginosus* var. *coachellae,* and support, currently and at the time of listing, the highest numbers of the taxon.

The fluvial and aeolian processes discussed above have been disrupted in many areas by development, alteration of stream flow, and the proliferation of nonnative plants. These threats to the persistence of *Astragalus lentiginosus* var. *coachellae* habitat are discussed further in the *Special Management Considerations or Protection* section below.

Sand Formations

Sand is found in various types of formations within the Coachella Valley, including but not limited to: Active sand dunes, stabilized or partially stabilized dunes, active sand fields, stabilized sand fields, shielded sand dunes and fields, ephemeral sand fields, and alluvial sand deposits on floodplain terraces of active washes. Each of these sand deposit formations provides habitat for *Astragalus lentiginosus* var. *coachellae* to varying degrees. A discussion of threats that are degrading the quality of *A. l.* var. *coachellae* habitat by impacting these sand formations (for example, development, unauthorized off-highway vehicle use, nonnative plants, and groundwater pumping) is included below in the *Special Management Considerations or Protection* section.

Active and Stabilized or Partially Stabilized Sand Dunes

Active sand dunes are almost barren expanses of moving sand with sparse, if any, perennial shrub cover. For *Astragalus lentiginosus* var. *coachellae,* active sand dunes provide suitable habitat. Active sand dunes may intermix with stabilized or partially stabilized dunes or become stabilized over time; stabilized sand dunes have similar sand accumulations and formations but are stabilized by shrubs, scattered low annuals, and perennial grasses. Stabilized or partially stabilized dunes are less vulnerable to loss of sand due to wind and therefore provide more stable habitat for long-term *A. l.* var. *coachellae* persistence (Griffiths *et al.* 2002, pp. 6–8).

Active Sand Fields

Astragalus lentiginosus var. *coachellae* also occurs in active sand fields that are similar to active sand dunes, but are smaller, shallower sand accumulations of insufficient depth to form dunes. Sand fields may form hummocks, which are local accumulations of sand that form when sand accumulates around, and is held in place by, shrubs or clumps of vegetation (for example, *Prosopis* spp.-mesquite hummocks). Shrubs that form hummocks are important for the maintenance of *A. l.* var. *coachellae* habitat where the plants occur because they prevent sand from being removed from depositional areas faster than it can be replaced by natural sand transport processes. In areas where mesquite plants are being lost (such as Willow Hole and Thousand Palms), aeolian processes are removing sand faster than it can be replenished (see the *Special Management Considerations or Protection* section below for further discussion of loss of mesquite hummocks due to groundwater pumping).

Stabilized Sand Fields

Stabilized sand fields are similar to active sand fields but contain sand accumulations that are stabilized by vegetation or are armored, a process where the wind picks up and moves smaller particles and leaves behind larger grains and gravels, forming an ''armor'' that prevents wind from moving additional smaller particles trapped below (Sharp and Saunders 1978, p. 12). Armored sand fields are temporarily stable, becoming active when the armor is disturbed over large areas (such as by flood, severe wind events, or human activities), or new sand is deposited from upwind fluvial depositional areas (Sharp and Saunders 1978, p. 12).

Shielded Sand Dunes and Fields

Shielded sand dunes and fields are similar to the sand formations described above, except that sand source and transport systems that would normally replenish these areas have been interrupted or the dunes are otherwise shielded by human development (CVAG 2007, p. 4.7–5). These shielded areas support large occurrences of *Astragalus lentiginosus* var. *coachellae* that may contribute to the conservation of the taxon; however, the natural processes sustaining the habitat have been permanently removed.

Ephemeral Sand Fields

Astragalus lentiginosus var. *coachellae* also occurs in ephemeral sand fields, which occur in areas where the rate at which sand is transported out of the area by wind exceeds the rate at which sand is replenished by upwind flood deposition events, resulting in a transient aeolian sand habitat that pulses after significant flood events deliver new sand to the aeolian transport corridor (Barrows and Allen 2007, p. 323; USFWS GIS data). This type of formation generally occurs at the western end of the Coachella Valley, where wind velocities are the highest (Barrows and Allen 2007, p. 323).

Alluvial Fans or Flood Plains

Astragalus lentiginosus var. *coachellae* can also occur on alluvial soils or on flood plain terraces (with little aeolian sands) in large alluvial fans, such as along Morongo Wash in Desert Hot Springs (J. Avery, USFWS Biologist, pers. obs. 2004–2009). Some of these formations have moderate amounts of diffuse disturbances and still support *A. l.* var. *coachellae* (Meinke *et al.* 2007, p. 21). Although the taxon can tolerate low levels of disturbance, plants do not typically persist into their second year in these conditions. Additionally, Meinke *et al.* (2007, p. 63) found that low levels of disturbance may help to promote seed germination. Therefore, the early stages and first-year plants of *A. l.* var. *coachellae* may be capable of surviving low-level disturbances that occur in these formations (Meinke *et al.* 2007, p. 63).

Suitable habitat may be transitory, and consequently currently unoccupied areas may become suitable following fluvial or aeolian events, and vice versa

(Lancaster 1995, p. 231). Conservation of the variety of sandy substrate types that may support the taxon is important for the conservation of *Astragalus lentiginosus* var. *coachellae* because of the dynamics of the aeolian sand transport processes. The life history of *A. l.* var. *coachellae* is uniquely suited to the transitory nature of its habitat, and the occurrences of the taxon will likely be impacted to the extent that the fluvial or aeolian sand transport systems are disrupted.

Plant Associations

Astragalus lentiginosus var. *coachellae* commonly occurs in association with Desert Dunes or Creosote bush—white burr sage-scrub vegetation (Sawyer *et al.* 2009, pp. 566–569, 876–877). These vegetation types are associated with rainfall patterns, shifting from west to east across the Coachella Valley. The vegetation generally consists of dispersed perennial shrubs, with intervening shrubless tracts providing space for wind dispersal of *A. l.* var. c*oachellae* fruits.

Woody perennials, such as *Lepidospartum squamatum* (California broomsage), *Hymenocela salsola* (cheesebush), *Ambrosia dumosa* (burrobush), and *Psorothamnus arborescens* (California dalea) are typically associated with *Astragalus lentiginosus* var. *coachellae* in the western and relatively high-rainfall areas near the San Gorgonio Pass (Meinke *et al.* 2007, p. 21). These perennial taxa along with *Larrea tridentata* (creosote bush) and annuals such as *Rafinesquia neomexicana* (California chicory) and *Camissonia pallida* (pale sun cup) are characteristic of the sandy wash habitat at Snow Creek (Meinke *et al.* 2007, pp. 22–24). This habitat type is associated with the fluvial sand deposits on floodplain terraces (discussed above).

In the southeastern extent of the range, where rainfall is the lowest, *Astragalus lentiginosus* var. *coachellae* occurs with annuals such as *Abronia villosa* (desert sand verbena), *Oenothera deltoides* (dune primrose), *Geraea canescens* (desert sunflower), *Oligomeris linifolia* (leaved cambess), *Astragalus aridis* (annual desert milk-vetch), and *Baileya pauciradiata* (Colorado Desert marigold) (Meinke *et al.* 2007, p. 21) on primary dunes at the Coachella Valley National Wildlife Refuge (Meinke *et al.* 2007, p. 17). This habitat type is associated with active sand dunes or partially stabilized sand dunes (discussed above). *Astragalus lentiginosus* var. *coachellae* is variously found with *Larrea tridentata* (creosote bush), *Psorothamnus emoryi* (Emory dalea), *Atriplex canescens* (fourwing saltbush), *Dicoria canescens* (desert dicoria), *Achnatherum* (as *Oryzopsis*) *hymenoides* (Indian ricegrass), *Croton californicus* (California croton), and *Petalonyx thurberi* (sandpaper plant) on low-shifting dunes; sand fields; and small, isolated dunes (Meinke *et al.* 2007, pp. 22–24).

Salsola tragus (Russian thistle), *Schismus barbatus* (Mediterranean grass), *Tamarix* spp. (salt-cedar), and *Brassica tournefortii* (Sahara mustard) are nonnative plants known to occur with and threaten *Astragalus lentiginosus* var. *coachellae* via competition for resources such as water and nutrients (Meinke *et al.* 2007, p. 26). The latter is considered to pose the most serious threat by competitive exclusion and by restricting natural movement of sand (Meinke *et al.* 2007, p. 24). Further discussion of nonnative plants is presented in the *Special Management Considerations or Protection* section below.

Spatial Distribution, Historical Range, and Population Size

Astragalus lentiginosus var. *coachellae* has a distribution limited to the Coachella Valley, Riverside County, in the southern California portion of the Colorado Desert. At the time of listing, the distribution of the taxon was equivalent to the historical geographic range of the taxon. The range of *A. l.* var. *coachellae* has remained effectively the same since the taxon was listed as endangered in 1998 (63 FR 53596; October 6, 1998); however, the spatial distribution within that range has changed as development has eliminated occurrences. At the time of listing, there were an estimated 25 extant occurrences of *A. l.* var. *coachellae,* and the quantity of suitable habitat was considered to be decreasing due to continuing direct and indirect impacts associated with development (63 FR 53596; October 6, 1998). Additional occurrences have been detected within the historical geographic range of the taxon since 1998; however, it is likely that these occurrences existed at the time of listing and we are aware of them now because of increased survey efforts. Throughout this rule we refer to all occurrences as ''occupied at the time of listing'' regardless of whether the areas were documented before or after the taxon was listed.

The majority of verified historical and extant occurrences of *Astragalus lentiginosus* var. *coachellae* are found in the northern Coachella Valley, from just east of the community of Cabazon eastward to the dunes off Washington Street, in the city of Thousand Palms, north and west of the city of Indio, within approximately 3 miles (mi) (5 kilometers (km)) of Interstate 10 (Barrows 1987 (map); CNDDB 2011). Collections northeast of Desert Center in the Chuckwalla Valley, east of the Coachella Valley, were thought at the time of listing to represent disjunct occurrences of *A. l.* var. *coachellae* (63 FR 53598). However, these have since been determined to most likely be *A. l.* var. *variabilis* (Meinke *et al.* 2007, p. 1).

Periodic surveys and observations indicate that the extent and success of germination events and surviving reproductive population sizes may differ widely from year to year, depending on climatic and environmental conditions (for example, Barrows 1987, pp. 1–2). Densities of standing plants can vary considerably among occurrences across the taxon's range in any given year. This makes meaningful assessment of total numbers of *Astragalus lentiginosus* var. *coachellae* plants (that is, population size) difficult. Additionally, as discussed above, the number of standing plants at any given time is only a partial indication of population size because seeds can persist in the ground (seed bank) for a number of years (Sanders and Thomas Olsen Associates 1996, p. 3). The number of individuals present may also be underestimated if surveys are conducted at a time or place where aerial stems have died back and broken off leaving the root crown, which could be overlooked. The historical abundance of *A. l.* var. *coachellae* plants is unknown (Sanders and Thomas Olsen Associates 1996, p. 3).

Previous Federal Actions

The following section summarizes the previous Federal actions since *Astragalus lentiginosus* var. *coachellae* was listed as endangered on October 6, 1998 (63 FR 53596); please refer to this final listing rule for a discussion of Federal actions that occurred prior to the taxon's listing.

At the time of listing, we determined that designation of critical habitat was ''not prudent'' (63 FR 53596). On November 15, 2001, the Center for Biological Diversity (CBD) and the California Native Plant Society (CNPS) filed a lawsuit against the Secretary of the Interior and the Service challenging our ''not prudent'' determinations for eight plant taxa, including *Astragalus lentiginosus* var. *coachellae* (*Center for Biological Diversity, et al.* v. *Norton,* case number 01–cv–2101 (S.D. Cal.)). A second lawsuit asserting the same challenge was filed on November 21, 2001, by the Building Industry Legal

Defense Foundation (*Building Industry Legal Defense Foundation* v. *Norton,* case number 01–cv–2145 (S.D. Cal.)). The parties in both cases agreed to remand the critical habitat determinations for the eight plant taxa at issue to the Service for reconsideration. On July 1, 2002, the Court directed us to reconsider our not prudent determination and if we determined that designation was prudent, submit to the **Federal Register** for publication a proposed critical habitat designation for *A. l.* var. *coachellae* by November 30, 2004, and to submit to the **Federal Register** for publication a final rule designating critical habitat by November 30, 2005. The proposed rule to designate critical habitat for *A. l.* var. *coachellae* published in the **Federal Register** on December 14, 2004 (69 FR 74468). The final rule designating critical habitat for *A. l.* var. *coachellae* published in the **Federal Register** on December 14, 2005 (70 FR 74112).

The Center for Biological Diversity filed a lawsuit on January 14, 2009, claiming the Service failed to designate adequate critical habitat for *Astragalus lentiginosus* var. *coachellae* (*CBD* v. *Kempthorne,* case number ED–cv–09–0091 VAP(AGRx) (C.D. Cal.)). In a settlement agreement dated November 14, 2009, we agreed to reconsider the critical habitat designation for *A. l.* var. *coachellae.* The settlement requires the Service to submit a proposed revised critical habitat designation for *A. l.* var. *coachellae* to the **Federal Register** by August 18, 2011, and submit a final revised critical habitat designation to the **Federal Register** by February 14, 2013.

Critical Habitat

Background

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

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

(a) Essential to the conservation of the species and

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

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

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

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

For inclusion in a critical habitat designation, the habitat within the geographical area occupied by the species at the time it was listed must contain physical or biological features which are essential to the conservation of the species and which may require special management considerations or protection. Critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat), focusing on the principal biological or physical constituent elements (primary constituent elements) within an area that are essential to the conservation of the species (such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type). Primary constituent elements are the elements of physical or biological features that, when laid out in the appropriate quantity and spatial arrangement to provide for a species' life-history processes, are essential to the conservation of the species.

Under the Act, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species. When the best available scientific data do not demonstrate that the conservation needs of the species require such additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the species. An area currently occupied by the species but that was not occupied at the time of listing may, however, be essential for the conservation of the species and may be included in the critical habitat designation.

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 determine which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, 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.

Climate Change and Critical Habitat

''Climate'' refers to an area's long-term average weather statistics (typically for at least 20- or 30-year periods), including the mean and variation of surface variables such as temperature, precipitation, and wind, whereas ''climate change'' refers to a change in the mean or variability or both of climate properties that persists for an extended period (typically decades or longer), whether due to natural processes or human activity (Intergovernmental Panel on Climate Change (IPCC) 2007a, p. 78). Although changes in climate occur continuously over geological time, changes are now occurring at an accelerated rate. For example, at continental, regional, and ocean basin scales, recent observed changes in long-term trends include: A substantial increase in precipitation in eastern parts of North America and South America, northern Europe, and northern and central Asia; an increase in intense tropical cyclone activity in the North Atlantic since about 1970 (IPCC 2007a, p. 30); and an increase in annual average temperature of more than 2 °F (1.1 °C) across the United States since 1960 (Global Climate Change Impacts in the United States (GCCIUS) 2009, p. 27). Examples of observed changes in the physical environment include: An increase in global average sea level; declines in mountain glaciers and average snow cover in both the northern and southern hemispheres (IPCC 2007a, p. 30); substantial and accelerating reductions in Arctic sea-ice (e.g., Comiso *et al.* 2008, p. 1); and a variety of changes in ecosystem processes, the distribution of species, and the timing of seasonal events (e.g., GCCIUS 2009, pp. 79–88).

The IPCC used Atmosphere-Ocean General Circulation Models and various greenhouse gas emissions scenarios to make projections of climate change globally and for broad regions through the 21st century (Meehl *et al.* 2007, p. 753; Randall *et al.* 2007, pp. 596–599), and reported these projections using a framework for characterizing certainty (Solomon *et al.* 2007, pp. 22–23). Examples include: (1) It is virtually certain there will be warmer and more frequent hot days and nights over most of the earth's land areas; (2) it is very likely there will be increased frequency of warm spells and heat waves over most land areas, and the frequency of heavy precipitation events will increase over most areas; and (3) it is likely that increases will occur in the incidence of extreme high sea level (excludes tsunamis), intense tropical cyclone activity, and the area affected by droughts (IPCC 2007b, p. 8, Table SPM.2). More recent analyses using a different global model and comparing other emissions scenarios resulted in similar projections of global temperature change across the different approaches (Prinn *et al.* 2011, pp. 527, 529).

All models (not just those involving climate change) have some uncertainty associated with projections due to assumptions used, data available, and features of the models; with regard to climate change this includes factors such as assumptions related to emissions scenarios, internal climate variability, and differences among models. Despite this, however, under all global models and emissions scenarios, the overall projected trajectory of surface air temperature is one of increased warming compared to current conditions (Meehl *et al.* 2007, p. 762; Prinn *et al.* 2011, p. 527). Climate models, emissions scenarios, and associated assumptions, data, and analytical techniques will continue to be refined, as will interpretations of projections, as more information becomes available. For instance, some changes in conditions are occurring more rapidly than initially projected, such as melting of Arctic sea ice (Comiso *et al.* 2008, p. 1; Polyak *et al.* 2010, p. 1797), and since 2000 the observed emissions of greenhouse gases, which are a key influence on climate change, have been occurring at the mid- to higher levels of the various emissions scenarios developed in the late 1990s and used by the IPPC for making projections (e.g., Raupach *et al.* 2007, Figure 1, p. 10289; Pielke *et al.* 2008, entire; Manning *et al.* 2010, Figure 1, p. 377). Also, the best scientific and commercial data available indicate that average global surface air temperature is increasing and several climate-related changes are occurring and will continue for many decades even if emissions are stabilized soon (e.g., Meehl *et al.* 2007, pp. 822–829; Church *et al.* 2010, pp. 411–412; Gillett *et al.* 2011, entire).

Changes in climate can have a variety of direct and indirect impacts on species, and can exacerbate the effects of other threats. Rather than assessing ''climate change'' as a single threat in and of itself, we examine the potential consequences to species and their habitats that arise from changes in environmental conditions associated with various aspects of climate change. For example, climate-related changes to habitats, predator-prey relationships, disease and disease vectors, or conditions that exceed the physiological tolerances of a species, occurring individually or in combination, may affect the status of a species. Vulnerability to climate change impacts is a function of sensitivity to those changes, exposure to those changes, and adaptive capacity (IPCC 2007, p. 89; Glick *et al.* 2011, pp. 19–22). As described above, in evaluating the status of a species, the Service uses the best scientific and commercial data available, and this includes consideration of direct and indirect effects of climate change. As is the case with all potential threats, if a species is currently affected or is expected to be affected by one or more climate-related impacts, this does not necessarily mean the species is an endangered or threatened species as defined under the Act. If a species is listed as endangered or threatened, this knowledge regarding its vulnerability to, and impacts from, climate-associated changes in environmental conditions can be used to help devise appropriate strategies for its recovery.

While projections from global climate model simulations are informative and in some cases are the only or the best scientific information available, various downscaling methods are being used to provide higher-resolution projections that are more relevant to the spatial scales used to assess impacts to a given species (see Glick *et al.,* 2011, pp. 58–61). With regard to the area of analysis for *Astragalus lentiginosus* var. *coachellae,* downscaled projections are not available.

Critical Habitat Dynamics

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

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

Physical or Biological Features

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

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

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

(3) Cover or shelter;

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

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

We derive the specific physical or biological features essential for *Astragalus lentiginosus* var. *coachellae* from studies of this taxon's habitat, ecology, and life history as described below. Additional information can be found in the final listing rule published in the **Federal Register** on October 6, 1998 (63 FR 53596), and the 5-year review for *A. l.* var. *coachellae* signed on September 1, 2009 (Service 2009). We have determined that the following physical and biological features are essential to *A. l.* var. *coachellae:*

Space for Individual and Population Growth and for Normal Behavior

Astragalus lentiginosus var. *coachellae* has a limited distribution. Within its limited range, *A. l.* var. *coachellae* requires space for the natural fluvial and aeolian transport and deposition of the sandy substrates on which it grows. Protection of aeolian and fluvial processes is crucial to maintain habitat for *A. l.* var. *coachellae.* These processes are responsible for transporting and depositing sand that is the foundation of habitat for *A. l.* var. *coachellae.* Disturbance or curtailment of these processes can result in a lack of adequate amounts of sand to produce the different formations that support habitat (for example, active dunes and sand fields). Protecting aeolian sand transport corridors between *A. l.* var. *coachellae* occurrences is also important for the dispersal of the wind-blown fruits into temporally unoccupied habitat to reestablish reproductive occurrences (metapopulation structure). *Astragalus lentiginosus* var. *coachellae* is also dependent upon insect pollinators (Meinke *et al.* 2007, p. 37). Protecting aeolian sand transport corridors also provides space for pollinator movement between occurrences, which is important for the long-term maintenance of occurrences. Therefore, based on the information above, we identify fluvial and aeolian sand transport and deposition processes, and aeolian sand transport corridors for seed dispersal and pollinator movement, to be physical or biological features for this taxon.

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

Astragalus lentiginosus var. *coachellae* is primarily found on various types of sand formations including active sand dunes, stabilized or partially stabilized dunes, active sand fields, stabilized sand fields, shielded sand dunes and fields, ephemeral sand fields, and alluvial sand deposits on floodplain terraces of active washes. Each of these sand deposit formations provides habitat for *A. l.* var. *coachellae* to varying degrees (see *Habitat* section above for further discussion of sand formations that support the taxon). The taxon also requires moving water and air to transport sand from sand source areas to occupied habitat areas as discussed above. *Astragalus lentiginosus* var. *coachellae* can be found in abundance on shielded sand fields, and the *A. l.* var. *coachellae* plants in these areas are important for the conservation of the taxon. However, we do not consider shielded habitat to contain the physical or biological features essential to the conservation of the taxon, because these areas are permanently cut off from the sand transport system. Shielded areas, although they currently contain sand formations, will eventually lose these formations as the winds remove sand over time. Therefore, based on the information above, we identify the other above-mentioned sand formations to be a physical or biological feature for this taxon.

The physiological and soil nutritional needs of *Astragalus lentiginosus* var. *coachellae* are not known at this time. The taxon shows variation in productivity and life-history patterns that appear to coincide with local or temporal variations in precipitation (wetter years result in higher levels of seed germination (e.g., Barrows 1987, p. 2)) and across its range (plants in the northwestern portion of the range where rainfall is higher are more likely to grow larger and survive into their second year or longer (Meinke *et al.* 2007, p. 25)). However, the specific optimal soil moisture range for the taxon is unknown.

Additionally, the taxon does not grow in some areas that appear to contain suitable habitat. For example, *Astragalus lentiginosus* var. *coachellae* grows on some portions of the alluvial sand deposits on floodplain terraces of Morongo Wash, but not others, and it does not grow in the bed of the wash when the bed is dry even though the bed contains sandy substrates (J. Avery, USFWS Biologist, pers. obs. 2004–2009). These apparent inconsistencies may be due to microsite differences (such as nutrient availability, soil microflora or microfauna, soil texture, or moisture). Research is needed to determine the specific nutritional and physiological requirements of *A. l.* var. *coachellae.*

Sites for Reproduction

Astragalus lentiginosus var. *coachellae* plants, like most plants, do not require areas for breeding or reproduction other than the areas they occupy and any area necessary for pollinators and seed dispersal. Reproduction sites accommodate all phases of the plant's life history. Seeds likely require certain soil conditions to germinate (for example, moisture and nutrient levels within a certain range, or close proximity to the soil surface), but as discussed above, we do not yet know what those requirements are. In addition, wind is important for the dispersal of the wind-blown fruits into temporally unoccupied habitat (metapopulation structure) of *A. l.* var. *coachellae.*

The primary visitors of *Astragalus lentiginosus* var. *coachellae* appear to be nonnative honeybees (*Apis mellifera*) (Meinke *et al.* 2007, p. 36). These bees appear to be flexible in their choice of nesting sites. For example, bee nests were found in discarded tires, in *Tamarix* spp. trees, and under a bridge near *A. l.* var. *coachellae* occurrences (Meinke *et al.* 2007, p. 36).

Native solitary bees, which may be the natural pollinators of *Astragalus lentiginosus* var. *coachellae,* utilize several plant species as pollen and nectar sources (Karron 1987, p. 188). Maintaining adequate populations of these bees likely depends on the presence of a variety of native plant species in sufficient numbers within or near *A. l.* var. *coachellae* occurrences, as well as between *A. l.* var. *coachellae* occurrences, to facilitate gene flow between occurrences. We do not know, however, why native bees have not yet been observed pollinating *A. l.* var. *coachellae.* Until specific pollinators for *A. l.* var. *coachellae* are identified, we are unable to consider protection of their specific habitat explicitly via this critical habitat designation. Therefore, based on the information above, we identify aeolian sand transport corridors for seed dispersal and pollinator movement to be a physical or biological feature for this taxon.

Habitats Protected From Disturbance or Representative of the Historical, Geographical, and Ecological Distributions of the Taxon

Astragalus lentiginosus var. *coachellae* is primarily found on loose aeolian (wind-transported) or fluvial (water-transported) sands that are located on dunes or sand fields, and along disturbed margins of sandy washes. Within active, stabilized, and ephemeral sand fields and dunes, *A. l.* var. *coachellae* tends to occur in coarse sands in the margins of dunes, but not in most active windswept sand areas (Coachella Valley MSHCP/NCCP 2007, pp. 9–27) (see *Habitat* section above for more detailed description of active and stabilized sand fields and dunes). Therefore, based on the information above, we identify substrate components and conditions suitable to support *A. l.* var. *coachellae* to be a physical or biological feature for this taxon.

The sandy substrates that are suitable for *Astragalus lentiginosus* var. *coachellae* are dynamic in terms of spatial mobility and tendency to change back and forth from active to stabilized (Lancaster 1995, p. 231). This has significant consequences for *A. l.* var. *coachellae* because the plant's population densities vary with different types of sandy substrates. Conserving the dynamics of the fluvial and aeolian sand transport processes is important for the conservation of *A. l.* var. *coachellae* because those dynamics create a variety of substrate types that support occurrences of the taxon.

The dynamics of the sandy substrates in the Coachella Valley are controlled by two main factors: (1) The supply of sand-sized sediment released, transported, and deposited by the fluvial system (water-transported); and (2) the rate of aeolian (wind-blown) transport (Griffiths *et al.* 2002, pp. 4–8). The latter is affected primarily by wind fetch (the length of unobstructed area exposed to the wind).

Most of the suitable sandy habitats in the Coachella Valley are generated from several drainage basins in the San Bernardino, Little San Bernardino, and San Jacinto Mountains and Indio Hills (Lancaster *et al.* 1993, pp. i–ii; Griffiths *et al.* 2002, p. 10). Sediment is eroded and washed from fluvial source areas (hill slopes and channels in the local hills and alluvial deposition areas in the Thousand Palms area (Unit 4)), and is transported downstream in stream channels and within alluvial fans during infrequent flood events (Griffiths *et al.* 2002, p. 7). Fluvial transport is the dominant mechanism that moves sediment into fluvial depositional areas in the Coachella Valley (Griffiths *et al.* 2002, p. 7). The largest depositional area in the Coachella Valley is in the Whitewater River floodplain, northwest of the City of Palm Springs (Griffiths *et al.* 2002, p. 5). For sufficient fine-grained sands to reach the aeolian system on the valley floor and support *Astragalus lentiginosus* var. *coachellae,* it is necessary to protect major fluvial channels that transport source sand from the surrounding drainage basins as well as bajadas and depositional areas. The Coachella Valley MSHCP/NCCP identifies the protection of the above-mentioned essential ecological processes, including sand source/transport systems, as a species conservation goal.

The San Gorgonio Pass is between the two highest peaks in southern California: San Gorgonio Mountain (11,510 feet (ft) (3,508 meters (m))) to the north and San Jacinto Mountain (10,837 ft (3,303 m)) to the south. Westerly winds funneling through San Gorgonio Pass are the dominant mechanism by which aeolian sands are transported from bajadas and fluvial depositional areas to aeolian deposits in the Coachella Valley (Sharp and Saunders 1978, p. 12; Griffiths *et al.* 2002, p. 1). *Astragalus lentiginosus* var. *coachellae* is associated with various types of sand formations that are formed by these aeolian deposits (Sanders and Thomas Olsen Associates 1996, p. 3). In order to maintain adequate replenishment of sands into aeolian depositional areas, it is important that sand-transport corridors between fluvial and aeolian depositional areas remain unobstructed for wind passage. The strong wind energy in this region can also erode sands from wash margins and suitable *A. l.* var. *coachellae* habitat, temporally shifting *A. l.* var. *coachellae* habitat into other areas, and thereby allowing the taxon to be dispersed and to colonize new areas or recolonize previously occupied areas. As a result, it is also necessary to protect sufficient space to allow for these dynamic aeolian sand deposits to shift in their distribution.

Primary Constituent Elements for Astragalus lentiginosus var. coachellae

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of *Astragalus lentiginosus* var. *coachellae* in areas occupied at the time of listing, focusing on the features' primary constituent elements. We consider primary constituent elements (PCEs) to be the specific elements of physical or biological features that provide for a species' life-history processes essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the taxon's life-history processes, we determine that the primary constituent element specific to *Astragalus lentiginosus* var. *coachellae* is:

Sand formations associated with the sand transport system in Coachella Valley, which:

(a) Include active sand dunes, stabilized or partially stabilized sand dunes, active or stabilized sand fields (including hummocks forming on leeward sides of shrubs), ephemeral sand fields or dunes, and fluvial sand deposits on floodplain terraces of active washes.

(b) Are found within the fluvial sand depositional areas, and the aeolian sand source, transport, and depositional areas of the sand transport system.

(c) Are comprised of sand originating in fluvial sand source areas (unoccupied by the taxon at the time of listing) in the hills surrounding Coachella Valley, which is moved into the valley by water (fluvial transport) and through the valley by wind (aeolian transport).

We consider the fluvial sand depositional areas and the aeolian sand source, transport, and depositional areas of the sand transport system described in (b) to be within the geographical area occupied by *Astragalus lentiginosus* var. *coachellae* at the time the taxon was listed, whereas the fluvial sand source areas referenced in (c) are considered to be outside the geographical area occupied by the taxon at the time of

listing. The sand formations provide substrate components and conditions suitable for growth. The aeolian sand transport corridor also provides space for seed dispersal and pollinator movement needed to maintain sand movement and genetic diversity of the taxon.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and that may require special management considerations or protection. The features essential to the conservation of this taxon may require special management considerations or protection to reduce the following threats: direct and indirect effects of urban and recreational (e.g., golf course) development, nonnative plant species, unauthorized off-highway vehicle (OHV) impacts, mining and other activities or structures that alter streamflow, and groundwater pumping.

Development

The Coachella Valley continues to attract increasing human populations and associated urban development pressure. Urban and recreational development can impact *Astragalus lentiginosus* var. *coachellae* directly by converting suitable, often occupied, habitat to structures, infrastructure, landscaping, or other non-natural ground cover that does not support the growth of the taxon. Structures and landscaping can also impact *A. l.* var. *coachellae* habitat indirectly by altering local wind and fluvial regimes. Such alterations can result in degraded *A. l.* var. *coachellae* habitat downstream or downwind of developed areas by inhibiting the movement of loose, unconsolidated sands needed for the formation and maintenance of suitable habitat vital to the growth and reproduction of the taxon. If the sand transport system is altered, sand cannot move through the valley to replace sands lost from the system downstream/downwind as a result of ongoing fluvial and aeolian processes.

Special management considerations or protection are needed within critical habitat areas to address the threats posed to *Astragalus lentiginosus* var. *coachellae* habitat by urban and recreational development. Management activities that could ameliorate these threats include, but are not limited to: Protection of lands that support suitable habitat and associated sand transport, and siting future development such that disruption of fluvial and aeolian sand transport processes is minimized and deposition areas are preserved. These management activities will protect the physical or biological features for the taxon by decreasing the direct loss of habitat to development and by helping to maintain the sand transport system and sand deposition areas that together provide the sand formations that are necessary components of *A. l.* var. *coachellae* habitat.

Preserving large areas of suitable habitat with intact wind and depositional regimes and preserving areas vital to the maintenance of the sand transport system are important to prevent further habitat loss. Preserving a variety of different habitat types (e.g., sand dunes, sand fields) throughout the range of the taxon should help maintain the genetic and demographic diversity (individuals in different age classes at any given time) of *Astragalus lentiginosus* var. *coachellae.*

Designing and orienting structures and landscaping such that they minimize the blockage of sand movement will also help to prevent the disruption of the sand transport system and further habitat loss. For example, orienting a building so that the face of the building is at an oblique angle with the prevailing wind direction may allow more sand to move around the building than would occur if the face of the building were at a right angle with the direction of sand movement. Planning development such that structures and landscaping are located outside of areas vital to sand transport will also help lessen the degradation of *Astragalus lentiginosus* var. *coachellae* habitat.

Nonnative Plant Species

Invasive nonnative plant species, such as *Brassica tournefortii* (Saharan mustard), *Schismus barbatus* (Mediterranean grass), and *Salsola tragus* (Russian-thistle), can impact *Astragalus lentiginosus* var. *coachellae* habitat by stabilizing loose sediments and reducing transport of sediment to downwind areas, thus making habitat unsuitable for *A. l.* var. *coachellae.* Additionally, *Tamarix* spp. (salt cedar) can create wind breaks in the aeolian transport system that can decrease the movement of sand through the valley. Dense cover of nonnative taxa may also impede the natural wind dispersal of the mature fruits of *A. l.* var. *coachellae.* This will curtail natural reproduction within a given site and natural dispersal to repopulate temporally unoccupied sites.

Management activities that could ameliorate these threats include, but are not limited to: Active weeding of nonnative plant species and targeted herbicide application. These management activities will protect the physical or biological features for the taxon by helping to control nonnative plants, which can degrade *Astragalus lentiginosus* var. *coachellae* habitat.

Unauthorized Off-Highway Vehicle (OHV) Impacts

Unauthorized OHV use may impact *Astragalus lentiginosus* var. *coachellae* habitat by making substrate conditions unsuitable for growth through the alteration of the fluvial sand transport system, changes in plant community composition, and disruption of the substrate, which can cause soils to lose moisture and may also impact soil microflora or microfauna (Service 2008, p. 8766). The native plant community associated with *A. l.* var. *coachellae* habitat allows for sand movement and does not inhibit dispersal. Disturbance from OHV use can affect the plant composition of the native plant community. Management activities that could ameliorate the threat of unauthorized OHV use include fencing and signage of habitat areas to assist in educating the public and engaging local authorities to improve the enforcement of laws prohibiting OHV trespass. Control of unauthorized OHV use in habitat occupied by *A. l.* var. *coachellae* has recently improved through increased local law enforcement in some areas, including lands managed by Bureau of Land Management (BLM), although it remains an issue on many privately owned lands.

Alteration of Stream Flow

The construction and operation of water percolation ponds, sand and gravel mines, and, to a lesser degree, dikes and debris dams can negatively impact *Astragalus lentiginosus* var. *coachellae* habitat if they prevent the fluvial transport of sand to habitat areas through diversion, channelization, or damming (Griffiths *et al.* 2002, pp. 13, 23). For example, the percolation ponds constructed on BLM and Coachella Valley Water District lands in the Whitewater River floodplain have substantially altered the transport of sand to habitat areas downstream and downwind, resulting in the severe degradation of sand and loss of *A. l.* var. *coachellae* habitat in these areas (Griffiths *et al.* 2002, pp. 6, 42).

Management activities that could ameliorate the threats posed to *Astragalus lentiginosus* var. *coachellae* habitat by alteration of stream flow include, but are not limited to: Working with concerned parties to find and

implement alternatives that allow for the removal or reconfiguration of existing barriers to fluvial sand transport, restoring sand transport to a more natural state, and working with concerned parties to design and implement future projects to maximize conservation/restoration of natural sand transport. These management activities will protect the physical or biological features for the taxon by helping to maintain the sand transport system that provides the sand that constitutes *A. l.* var. *coachellae* habitat.

Groundwater Pumping

Hummocks formed by *Prosopis* spp. (mesquite) and other shrubs contribute to the creation and stabilization of sand dunes and sand fields by anchoring dunes and making them less vulnerable to wind erosion. Wind-blown sand accumulates in areas where wind speed is reduced (by topographical features, rocks, shrubs, or other objects) near the ground (Fryberger and Ahlbrandt 1979, p. 440). The shrubs in the hummock help to stabilize and support sand deposits around the hummock, which support *Astragalus lentiginosus* var. *coachellae* occurrences and its sand dune and field habitat. The mesquite shrubs in the Banning Fault/Willow Hole area are senescent and appear to be dying, likely due to ongoing artificial lowering of groundwater levels in the sub-basin to provide water for human use (Mission Springs Water District 2008, p. 4–97). Similar mesquite hummocks that existed historically have already been lost in and near the Thousand Palms Reserve (in the Thousand Palms Conservation Area), likely due to groundwater withdrawals (based on water well log data, field observation, and aerial photos) (J. Avery, pers. obs. 2006). Loss of the anchoring mesquite shrubs will lead to the loss of the associated hummocks over time by the erosion of sand deposits, therefore affecting *A. l.* var. *coachellae* habitat created or maintained by the trapping of sand.

Management activities that could ameliorate the threats posed to *Astragalus lentiginosus* var. *coachellae* habitat by groundwater pumping include, but are not limited to: Subsurface irrigation of existing mesquite plants, and the planting, restoring, and irrigating of mesquite in areas where groundwater levels have fallen and caused the degradation or loss of the mesquite plants that hold sand in place, and which will ultimately result in the loss of the taxon's essential substrate. These management activities will protect the physical or biological features for *A. l.* var. *coachellae* by helping to maintain much of the extant mesquite hummocks within the range of the taxon and by restoring an undetermined acreage of historical mesquite hummocks that maintain (or will maintain) portions of *A. l.* var. *coachellae* habitat.

In summary, threats to *Astragalus lentiginosus* var. *coachellae* habitat include urban and recreational development, nonnative plant species, OHV impacts, alteration of stream flow, and groundwater pumping. We find that the occupied areas proposed as revised critical habitat contain the physical or biological features essential to the conservation of *A. l.* var. *coachellae,* and that these features may require special management considerations or protection. Special management considerations or protection may be required to eliminate, or reduce to a negligible level, the threats affecting each unit or subunit and to preserve and maintain the essential features that the proposed critical habitat units and subunits provide to *A. l.* var. *coachellae.* Additional discussions of threats facing individual sites are provided in the individual unit descriptions in the Proposed Critical Habitat Designation section below.

The designation of critical habitat does not imply that lands outside of critical habitat do not play an important role in the conservation of *Astragalus lentiginosus* var. *coachellae.* For example, drainage areas that provide source material for the aeolian sand in the habitat (fluvial sand source areas) are necessary for the survival of this taxon.

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 to designate critical habitat. We review available information pertaining to the habitat requirements of the species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we consider whether designating additional areas—outside those currently occupied as well as those occupied at the time of listing—are necessary to ensure the conservation of the species. We relied on information in articles in peer-reviewed journals, the Coachella Valley MSHCP/NCCP, survey reports and other unpublished materials, and expert opinion or personal knowledge. We also used the model developed by the Coachella Valley Mountains Conservancy to help identify *A. lentiginosus* var. *coachellae* habitat (CVMC 2004). Finally, we used information from the proposed (69 FR 74468; December 14, 2004) and final (70 FR 74112; December 14, 2005) critical habitat rules, the 5-year status review that was signed on September 1, 2009 (Service 2009), and other information in our files. We are proposing to designate revised critical habitat in areas within the geographical area occupied by *A. l.* var. *coachellae* at the time of listing in 1998. We are also proposing to designate specific areas outside the geographical area occupied by the taxon at the time of listing, because such areas support sand transport processes that are vital to maintaining suitable habitat, and therefore are essential for the conservation of the taxon.

Suitable habitat may be occupied by the taxon even if no plants appear above-ground. *Astragalus lentiginosus* var. *coachellae* populations can survive drought periods through dormant seeds (seed bank) and root crowns, and as a consequence, the number of above-ground plants at any given time is only a limited temporal indication of population size (Meinke *et al.* 2007, p. 39). It is not known how long *A. l.* var. *coachellae* seeds may remain viable, but studies on *A. l.* var. *micans* demonstrate that buried seeds may remain viable for at least 8 years (Pavlik and Barbour 1986, p. 31). Therefore, we also considered areas as occupied where suitable habitat did not contain above-ground individuals, but likely contain seed banks and dormant root crowns of *A. l.* var. *coachellae.*

Unoccupied areas that provide for the fluvial transport of sand from fluvial sand source areas to fluvial depositional areas occupied by *Astragalus lentiginosus* var. *coachellae* are also proposed for designation. These areas are essential for the conservation of *A. l.* var. *coachellae* because they maintain *A. l.* var. *coachellae* habitat (see criteria numbers 4, 5, and 6 below).

We defined the boundaries of each unit based on the criteria below:

Occupied Areas

(1) Potential suitable habitat for *Astragalus lentiginosus* var. *coachellae* was first identified using areas included in the Coachella Valley Mountains Conservancy (CVMC) species distribution model for the taxon (CVMC 2004). The CVMC model was developed using survey data for *A. l.* var. *coachellae* (Bureau of Land Management, unpublished data 2001), habitat variables, and expert opinion, and was created to assist in the design of preserves and to evaluate the potential benefits of the (then) proposed Coachella Valley MSHCP/NCCP for the plant (CVMC 2004). Environmental variables associated with *A. l.* var.

coachellae occurrence locations were identified and maps containing those variables were combined with Geographic Information Systems (GIS) land use and habitat data to create the model. Eight types of habitats were used in the model: (1) Margins of active dunes, (2) active shielded desert dunes, (3) stabilized desert dunes, (4) stabilized sand fields, (5) stabilized shielded sand fields, (6) ephemeral sand fields, (7) active sand fields, and (8) mesquite hummocks. The habitat types used to create the model represented conditions that result from the dynamic process of sand movement in the Coachella Valley floor; these habitat types are found in fluvial sand depositional areas and aeolian sand source, transport, and depositional areas (see *Habitat* section above for a detailed discussion of these habitat types). During our analysis for the 2005 critical habitat designation for *A. l.* var. *coachellae,* we reviewed the validity of the environmental variables used to create the model with occurrence data and information about the plant's ecology. We found documentation of *A. l.* var. *coachellae* occurrences in all of the natural communities used to create the model, and concluded that the model was reasonably capable of identifying suitable habitat for *A. l.* var. *coachellae.* We mapped the modeled habitat using GIS software, and refined the map to only include areas that we believe either contain the physical or biological features essential to the conservation of the taxon or are otherwise essential for the conservation of the taxon.

(2) We analyzed lands covered by the Coachella Valley MSHCP/NCCP, and determined that *A. l.* var. *coachellae* habitat within the Coachella Valley MSHCP/NCCP Conservation Areas sufficiently provides for the conservation of the taxon within areas covered by the Coachella Valley MSHCP/NCCP (Conservation Areas are a group of specific areas in which the bulk of the habitat conservation mandated by the HCP is to take place). We have determined that the modeled *A. l.* var. *coachellae* habitat outside of the Conservation Areas does not contain the physical or biological features considered essential to the conservation of the taxon, nor are these areas otherwise essential for the conservation of the taxon because these areas exist as small, disjunct patches, other larger areas where sand transport has been blocked, or they do not contain documented occurrences of the taxon.

The modeled *Astragalus lentiginosus* var. *coachellae* habitat areas that are covered by the Coachella Valley MSHCP/NCCP and are within the Conservation Areas are connected to the fluvial portion of the sand transport system. Each element of the PCE can be found in these areas (fluvial sand transport within Conservation Areas is discussed below). Modeled *A. l.* var. *coachellae* habitat areas that are covered by the Coachella Valley MSHCP/NCCP but are outside of the Conservation Areas may contain some elements of the PCE, but for reasons discussed above we do not consider these areas to meet the definition of critical habitat for *A. l.* var. *coachellae.* Therefore, in areas covered by the Coachella Valley MSHCP/NCCP, we have confined the proposed critical habitat to lands that are within the Conservation Areas.

(3) We added areas that are not covered under the Coachella Valley MSHCP/NCCP, but have been determined by biologists familiar with the taxon, its habitat, and its distribution, to contain the physical or biological features essential to the conservation of the taxon (see Summary of Changes From Previously Designated Critical Habitat section below for further discussion regarding these areas). The biologists used aerial map coverages, Service GIS data, and personal knowledge to determine these areas.

Unoccupied Areas

We determined that designating only those areas occupied at the time of listing (also identified as the occupied depositional areas and intervening areas needed for aeolian sand transport, seed dispersal, and pollinator movement) would not sufficiently provide for the conservation of *Astragalus lentiginosus* var. *coachellae,* because fluvial transport of sand from hills (fluvial sand source areas) into occupied areas is vital to the maintenance of habitat for the taxon. It will be impossible to conserve or recover this taxon if fluvial sand transport processes are lost; therefore, we determined that fluvial sand transport areas should be proposed for inclusion in the critical habitat designation for *A. l.* var. *coachellae* regardless of the fact that these areas are outside the geographical area occupied by *A. l.* var. *coachellae* at the time the species was listed. We used the following steps to determine which portions of the fluvial sand transport system are essential for the conservation of *A. l.* var. *coachellae:*

(4) Based on studies of the geomorphological processes of sediment movement in the Coachella Valley by Lancaster *et al.* (1993) and Griffiths *et al.* (2002), we identified and mapped drainage basins that provide sediment for the four major sand transport systems in the Coachella Valley (San Gorgonio/Snow Creek, Whitewater River, Mission Creek/Morongo Wash, and Thousand Palms). Based on Griffiths *et al.* (2002, p. 10), the drainages in eastern San Bernardino, western Little San Bernardino Mountains, northern San Jacinto Mountains, and Indio Hills that contribute sediment to the Coachella Valley include the: San Gorgonio River; Whitewater River; Snow Canyon; San Jacinto 1 and 2; Stubbes Canyon; Cottonwood Canyon; Garnet Wash; Mission Creek; Dry Morongo; lower Little Morongo Creek; lower Big Morongo south of Morongo Valley; and drainages in the southern flank of Indio Hills west of Thousand Palms Canyon. We used GIS data obtained from Peter Griffiths (United States Geological Survey 2002) to determine drainage boundaries. We used these drainage boundaries to ensure we did not include portions of stream channels that did not contribute sediment to occupied areas.

(5) We then used aerial imagery to determine where the main stream channels conveying sand to the fluvial depositional areas (San Gorgonio River, Whitewater River, Snow Creek, Mission Creek, and Morongo Wash) are located, and used our GIS software to draw polygons that define the extent of these streams. Griffiths *et al.* (2002) found that very little of the sand reaching the valley floor areas originates from portions of the mountain drainages where the ground slope is less than 10 percent. We considered only the lower reaches of main stream channels (fluvial sand transport areas) that receive sediment from source areas in the surrounding mountains and hills and convey that sediment to the fluvial depositional areas on the valley floor essential for the conservation of the taxon. These channels have upstream portions and numerous tributaries within areas with 10 percent slope or greater (sand source areas); therefore, we believe there is enough redundancy among these tributaries and the areas that they drain that only the lower reaches of main stream channels (where ground slope is less than 10 percent) are essential for the conservation of the taxon. If the lower reaches of any of the main stream channels are lost, sand transport to portions of the occupied *A. l.* var. *coachellae* habitat downstream and downwind will be lost as well. Using GIS data, we determined where the ground slopes of the main stream channels become greater than 10 percent. We believe that where the main streams exceed 10 percent slope, they too become redundant with the numerous tributaries and washes

feeding into them. Therefore, we have only identified those fluvial sand transport areas as essential for the conservation of the taxon where portions of the main stream channels have a slope of less than 10 percent.

(6) The occupied areas in the Thousand Palms area (proposed Unit 4) depend on large flooding events to wash sands stored in channels on alluvial fans to the north at the base of the Indio Hills (fluvial sand source areas) southward into fluvial depositional areas where the sand can be moved by aeolian processes. Therefore, in the Thousand Palms area, we used aerial imagery to determine the extent of the alluvial fans where the sand is stored, and used our GIS software to create a GIS polygon to encompass this area.

In this proposed revised critical habitat designation for *Astragalus lentiginosus* var. *coachellae,* we selected areas based on the best scientific data available that possess those physical or biological features essential to the conservation of the taxon and that may require special management considerations or protection, and other areas essential for the conservation of the plant. When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other hard structures because such lands lack physical or biological features for *A. l.* var. *coachellae.* 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 revised rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect adjacent critical habitat.

We are proposing for designation as critical habitat lands that we have determined were occupied at the time of listing and contain sufficient elements of physical or biological features to support life-history processes essential to the conservation of the taxon, and lands outside of the geographical area occupied at the time of listing that we have determined are essential for the conservation of *Astragalus lentiginosus* var. *coachellae.*

Summary of Changes From Previously Designated Critical Habitat

The areas identified in this proposed rule constitute a proposed revision to the critical habitat rule for *Astragalus lentiginosus* var. *coachellae* published on December 14, 2005 (70 FR 74112). In cases where we have new information or information that was not available for the previous designation, we are proposing changes to the critical habitat designation for *A. l.* var. *coachellae* to ensure that this rule reflects the best scientific data available. We modified our description of the primary constituent elements and the criteria used to identify critical habitat, which resulted in modification of the boundaries of previously proposed critical habitat units to more accurately reflect areas that include the features that are essential to the conservation of *A. l.* var. *coachellae.* The Secretary will also consider whether to exercise his discretion to exclude specific areas from the final designation under section 4(b)(2) of the Act, including reconsidering areas excluded in the prior designation; we are seeking public comment regarding this matter (see Public Comments section of this rule). Finally, we divided what was previously Unit 1 (Whitewater River System) into two units (Unit 1—San Gorgonio River/Snow Creek System, and Unit 2—Whitewater River System) to more accurately reflect the structure of the sand transport system in the Coachella Valley; these changes are outlined in Table 1 below.

TABLE 1—UNIT NUMBER AND NAME CHANGES FROM THE 2005 CRITICAL HABITAT DESIGNATION TO THIS PROPOSED RULE, AND REASONS FOR NAME CHANGES

Previous unit No.	Previous unit name	New unit No.	New unit name
Unit 1	Whitewater River System	Unit 1	San Gorgonio River/Snow Creek System.
		Unit 2	Whitewater River System.
Unit 2	Mission Creek/Morongo Wash System	Unit 3	Mission Creek/Morongo Wash System.
Unit 3	Thousand Palms System	Unit 4	Thousand Palms System.

Changes in Designation Process

In the 2004 proposed critical habitat rule for *Astragalus lentiginosus* var. *coachellae* (69 FR 74468, December 14, 2004), we determined that 20,559 acres (ac) (8,320 hectares (ha)) were essential to the conservation of the taxon. In that proposed rule, we excluded 16,976 ac (6,870 ha) from the designation. In the 2005 final critical habitat rule (70 FR 74112, December 14, 2005), we identified 17,746 ac (7,182 ha) as containing features essential to the conservation of *A. l.* var. *coachellae*. Of this area, we excluded 14,091 ac (5,703 ha) pursuant to section 4(b)(2) of the Act based on their coverage under the draft Coachella Valley MSHCP/NCCP, and removed 3,655 ac (1,480 ha) of Service Refuge and BLM lands from the designation because we determined that these lands did not meet the definition of critical habitat under section 3(5)(A) of the Act because these lands already received special management considerations due to their inclusion and management within the Coachella Valley Preserve System under the Coachella Valley Fringe-Toed Lizard HCP. The final 2005 critical habitat designation for *A. l.* var. *coachellae* was 0 ac.

In this 2011 revised critical habitat proposal, we determined that 25,704 ac (10,402 ha) meet the definition of critical habitat; this entire area is being proposed as critical habitat for the taxon. The footprint of lands deemed essential in 2005 is very similar to the footprint of the current proposal; however, the 2005 essential lands did not include fluvial sand transport areas or any lands outside of the Coachella Valley MSHCP/NCCP Conservation Areas. This 2011 proposal includes fluvial sand transport areas as well as Tribal areas and areas in the City of Desert Hot Springs that are outside of the Coachella Valley MSHCP/NCCP Conservation Areas.

In the 2011 proposal we made the following specific changes, based on the best available scientific and commercial information:

(1) We refined the primary constituent elements (PCEs) for clarity and to more accurately define the physical or biological features that are essential to the conservation of *A. l.* var. *coachellae.*

(2) We have proposed unoccupied areas we believe are essential for the conservation of *A. l.* var. *coachellae.* These areas consist of lower reaches of main channels (fluvial sand transport areas) that move the sands necessary for *A. l.* var. *coachellae* habitat from fluvial sand source areas in the surrounding hills and mountains to the depositional areas on the floor of the Coachella Valley. These areas were identified as important in the 2004 proposed critical habitat designation (69 FR 74473; December 14, 2004), but were not proposed for inclusion in the critical habitat designation at that time, and were not included in the final designation because they are not occupied, they do not contain suitable habitat, and because the (then draft) Coachella Valley MSHCP/NCCP was proposing to protect sand source areas in a way that was anticipated to benefit the taxon (70 FR 74122; December 14, 2005). After reconsidering the best available information, we now consider these unoccupied areas to be essential for the conservation of the taxon.

(3) We revised the criteria used to identify critical habitat based on the best scientific and commercial data currently available, and re-evaluated all lands within the taxon's range (including tribal lands and lands within the City of Desert Hot Springs, which is not currently a permittee under the Coachella Valley MSHCP/NCCP) in light of this best available information. As a result, some areas are included in this proposed rule that were not identified as containing the physical or biological features essential to the conservation of *A. l.* var. *coachellae* in the 2005 critical habitat designation. As in 2005, we determined that of the lands covered by the Coachella Valley MSHCP/NCCP, only lands within the Conservation Areas contain the physical or biological features essential to the conservation of the taxon. We outline the steps that were used to identify and delineate the areas that we are proposing as critical habitat in this revised proposed critical habitat designation compared to the 2005 critical habitat designation in order to ensure that the public better understands why the areas are being proposed as critical habitat (see the *Criteria Used to Identify Critical Habitat* section).

(4) In the 2004 proposed rule and the 2005 final rule, we excluded or did not include areas under sections 4(b)(2) or 3(5)(A) of the Act, respectively, within the planning boundaries for the (then draft) Coachella Valley MSHCP/NCCP and areas covered under the Coachella Valley Fringe-Toed Lizard HCP (which has since been subsumed by the Coachella Valley MSHCP/NCCP, and effectively no longer exists) (see the discussion above for the specific areas previously excluded or not included). We note that the Service does not now interpret the definition of critical habitat (section 3(5)(A) of the Act) to mean that areas receiving protection or management do not meet the definition of critical habitat. In this proposed rule, we are considering for exclusion under section 4(b)(2) of the Act the areas covered under the Coachella Valley MSHCP/NCCP that we believe meet the definition of critical habitat (see the *Habitat Conservation Plan Lands—Exclusions under Section 4(b)(2) of the Act* section). Exclusions that may occur in the final rule resulting from this proposed rule could differ from the exclusions made in the 2005 critical habitat designation.

Proposed Critical Habitat Designation

We are proposing four units as critical habitat for *Astragalus lentiginosus* var. *coachellae.* The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for *A. l.* var. *coachellae.* The four areas we propose as critical habitat are the San Gorgonio/Snow Creek system (Unit 1), the Whitewater River system (Unit 2), the Mission Creek/Morongo Wash fluvial system (Unit 3), and the Thousand Palms system (Unit 4). Each of these units consists of fluvial sand transport areas, which are not occupied by *A. l.* var. *coachellae,* and occupied areas (i.e., fluvial and aeolian depositional areas, as well as aeolian sand source areas and aeolian sand transport areas). The two types of areas are intimately associated in time and space. The approximate area of each proposed critical habitat unit is shown in Table 2.

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Table 2. Proposed critical habitat units for *Astragalus lentiginosus* var. *coachellae*.

[Area estimates reflect all land within critical habitat unit boundaries.]

Note: Area sizes may not sum due to rounding.

Unit	**Ownership**												**Total Area**	
	Federal		State Government		Local Government		Private		Tribal		Water District			
	ac	ha	ac	ha	ac	ha	ac	ha	ac	Ha	ac	ha	**ac**	**Ha**
Unit 1: depositional/ occupied	970	393	164	66	69	28	1,301	526	9	4	1	0	**2,515**	**1,018**
Unit 1: unoccupied fluvial sand transport	179	72	0	0	25	10	490	198	307	124	38	15	**1,039**	**420**
Unit 1 Total	1,149	465	164	66	95	38	1,791	725	316	128	39	16	**3,553**	**1,438**
Unit 2: depositional/ occupied	1,544	625	13	5	328	133	869	352	580	235	3,010	1,218	**6,344**	**2,567**
Unit 2: unoccupied fluvial sand transport	397	161	8	3	0	0	417	169	0	0	133	54	**954**	**386**
Unit 2 Total	1,941	786	20	8	328	133	1,286	520	580	235	3,143	1,272	**7,298**	**2,953**
Unit 3: depositional/ occupied	361	146	199	81	1,036	419	3,363	1,361	0	0	123	50	**5,083**	**2,057**
Unit 3: unoccupied fluvial sand transport	140	57	0	0	505	204	1,912	774	0	0	164	67	**2,722**	**1,101**
Unit 3 Total	501	203	199	81	1,541	624	5,275	2,135	0	0	288	117	**7,805**	**3,158**

Unit	Ownership												Total Area	
	Federal		State Government		Local Government		Private		Tribal		Water District			
	ac	ha	ac	ha	ac	ha	ac	ha	ac	Ha	ac	ha	**ac**	**Ha**
Unit 4: depositional/ occupied	3,618	1,464	787	319	51	20	333	135	0	0	114	46	**4,902**	**1,984**
Unit 4: unoccupied fluvial sand transport	49	20	911	369	229	92	914	370	0	0	43	17	**2,146**	**868**
Unit 4 Total	3,667	1,484	1,698	687	279	113	1,247	505	0	0	157	63	**7,048**	**2,852**
Subtotal – occupied depositional areas	6,493	2,628	1,163	471	1,484	601	5,865	2,374	589	238	3,248	1,315	**18,843**	**7,626**
Subtotal – unoccupied fluvial sand transport areas	765	309	918	372	759	307	3,734	1,511	307	124	378	153	**6,861**	**2,776**
Total	**7,258**	**2,937**	**2,081**	**842**	**2,243**	**908**	**9,599**	**3,885**	**896**	**363**	**3,627**	**1,468**	**25,704**	**10,402**

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We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for *A. l.* var. *coachellae*, below.

Unit 1: San Gorgonio River/Snow Creek System

Unit 1 consists of 1,149 ac (465 ha) of Federal land, 164 ac (66 ha) of State land, 95 ac (38 ha) of local government-owned land, 1,791 ac (725 ha) of private land, 316 ac (128 ha) of tribal land, and 39 ac (16 ha) of water district land in the

Coachella Valley, Riverside County. Within Unit 1, 158 ac (64 ha) are part of the Western Riverside County MSHCP, however, *Astragalus lentiginosus* var. *coachellae* is not a covered species under this plan. Unit 1 contains approximately 1,039 ac (420 ha) of unoccupied fluvial sand transport area associated with the San Gorgonio River and Snow Creek drainages. The remainder of Unit 1 consists of approximately 2,515 ac (1,018 ha) of occupied suitable habitat extending approximately from the eastern edge of the community of Cabazon to just west of Whitewater River, and is approximately bound by State Route 111 to the north, and the foot of the San Jacinto Mountains to the south. In total, Unit 1 consists of 3,553 ac (1,438 ha) of land.

Unoccupied fluvial sand transport areas in this unit contain active washes associated with San Gorgonio River and Snow Creek, which carry substrates created by fluvial erosion of the surrounding hills to occupied fluvial deposition areas in Unit 1 on the valley floor (Griffiths *et al.* 2002, pp. 10–11). Occupied habitat areas of Unit 1 contain the physical or biological features essential to the conservation of *Astragalus lentiginosus* var. *coachellae* including active sand dunes, sand fields, and stabilized and partially stabilized sand fields that provide substrate components and conditions suitable for the growth of *A. l.* var. *coachellae* (Coachella Valley MSHCP/NCCP 2007, Table 10–1a), and areas over which unobstructed aeolian sand transport can occur.

The occupied areas in Unit 1 meet the definition of critical habitat because they contain the physical or biological features essential to the conservation of the taxon. These features may require special management considerations or protection to address threats from nonnative, invasive plants and unauthorized OHV activity in the occupied areas and threats from alteration of stream flow that impact habitat in the occupied areas. Please see the *Special Management Considerations or Protection* section of this proposed rule for a discussion of the threats to *Astragalus lentiginosus* var. *coachellae* habitat and potential management considerations.

The unoccupied areas in Unit 1 are essential for the conservation of *Astragalus lentiginosus* var. *coachellae* because they contain habitat within the Snow Creek/Windy Point Conservation Area identified by the Coachella Valley MSHCP/NCCP Planning Team as one of four Core Habitat areas for *A. l.* var. *coachellae* (Coachella Valley MSHCP/NCCP, p. 9–21), and because they contain portions of the San Gorgonio River and Snow Creek that support the fluvial sand transport process crucial to the transport and deposition of sand that provides the foundation of habitat for *A. l.* var. *coachellae* in the occupied areas of Unit 1, and these fluvial sand transport areas support the westernmost occurrences of the taxon. Because of their geographic location, these plants and their habitat receive more rainfall than occurrences and suitable habitat farther east, which allows many individuals to survive more than 1 year, grow larger, and produce more seed, all of which promote the stability and reduce the chance of extirpation of the occurrences in this unit (Meinke *et al.* 2007, p. 33). Also, due to strong winds moving through this area from the west to east, the occupied habitat in Unit 1 likely acts as a source of seed (and hence, a source of genetic diversity) for areas of suitable habitat to the southeast (Meinke *et al.* 2007, p. 40). Unit 1 likely also contributes to the maintenance of genetic diversity in other occupied areas through the movement of pollinators (Meinke *et al.* 2007, p. 37).

Unit 2: Whitewater River System

Unit 2 consists of 1,941 ac (786 ha) of Federal land, 20 ac (8 ha) of State land, 328 ac (133 ha) of local government-owned land, 1,286 ac (520 ha) of private land, 580 ac (235 ha) of tribal land, and 3,143 ac (1,272 ha) of water district land in the Coachella Valley, Riverside County. Unit 2 contains approximately 954 ac (386 ha) of unoccupied fluvial sand transport areas associated with the Whitewater River watershed. The remainder of Unit 2 consists of approximately 6,344 ac (2,567 ha) of occupied suitable habitat and is approximately bound by State Route 111 to the west, the Southern Pacific Railroad to the north and east, and dense urban development in the cities of Palm Springs and Cathedral City to the south. In total, Unit 2 consists of 7,298 ac (2,953 ha) of land.

Unoccupied fluvial sand transport areas in this unit contain active washes associated with Whitewater River, which carry substrates created by fluvial erosion of the surrounding hills (fluvial sand source areas) to occupied fluvial deposition areas in Unit 2 on the valley floor (Griffiths *et al.* 2002, pp. 10–11). Occupied habitat areas of Unit 2 contain the physical or biological features essential to the conservation of *Astragalus lentiginosus* var. *coachellae* including active and ephemeral sand fields, and stabilized and partially stabilized sand fields that provide substrate components and conditions suitable for the growth of *A. l.* var. *coachellae* (Coachella Valley MSHCP/NCCP 2007, Table 10–1a), and areas over which unobstructed aeolian sand transport can occur.

The occupied areas in Unit 2 meet the definition of critical habitat because they contain the physical or biological features essential to the conservation of the taxon. The features in Unit 2 may require special management considerations or protection to address threats from nonnative plants, urban development, alteration of stream flow, unauthorized OHV activity in the occupied depositional areas, and threats from alteration of stream flow that impact habitat in occupied areas. Please see the *Special Management Considerations or Protection* section of this proposed rule for a discussion of the threats to *Astragalus lentiginosus* var. *coachellae* habitat and potential management considerations.

The unoccupied areas in Unit 2 are essential for the conservation of *Astragalus lentiginosus* var. *coachellae* because they contain Core Habitat within the Whitewater Floodplain Habitat Area, identified by the Coachella Valley MSHCP/NCCP Planning Team as one of four Core Habitat areas for *A. l.* var. *coachellae* (Coachella Valley MSHCP/NCCP, p. 9–21); because they contain portions of the Whitewater River that support the fluvial sand transport process crucial to transport and deposit sand that provides the foundation of habitat for *A. l.* var. *coachellae* in the occupied depositional areas of Unit 2; and because they serve as a corridor between the habitat and occurrences to the west in Unit 1 and the habitat and occurrences to the east in Unit 3. Although Unit 2 does not serve as a substantial source of aeolian sand to Unit 3 relative to the onsite fluvial sand transport areas in Unit 3 (Mission Creek and Morongo Wash), it may serve as a corridor for gene flow by means of pollen and seed dispersal between Units 1, 2, and 3 due to dispersal of seeds from Unit 1 into Unit 2 and from Unit 2 into Unit 3 combined with movement of pollinators among the three units (Meinke *et al.* 2007, p. 37).

Unit 3: Mission Creek/Morongo Wash System

Unit 3 consists of 501 ac (203 ha) of Federal land, 199 ac (81 ha) of State land, 1,541 ac (624 ha) of local government-owned land, 5,275 ac (2,135 ha) of private land, and 288 ac (117 ha) of water district land in the Coachella Valley, Riverside County. Unit 3 contains approximately 2,722 ac (1,101 ha) of mostly unoccupied fluvial sand

transport area associated with the Mission Creek watershed and a portion of the Morongo Wash watershed (sand deposits on the floodplain terraces of Morongo Wash south of Pierson Boulevard support occurrences of *Astragalus lentiginosus* var. *coachellae*). The remainder of Unit 3 consists of approximately 5,083 ac (2,057 ha) of occupied habitat and includes sand deposits on the floodplain terraces of Morongo Wash south of Pierson Boulevard, and fluvial depositional areas and aeolian transport and depositional areas approximately bound (clockwise from the western boundary) by Little Morongo Road, 18th Avenue, Palm Drive, 20th Avenue, Artesia Road, and Mihalyo Road, in or near the City of Desert Hot Springs. In total, Unit 3 consists of 7,805 ac (3,158 ha) of land.

Unoccupied fluvial sand transport areas in this unit contain active washes associated with Mission Creek and Morongo Wash (north of Pierson Boulevard), which carry substrates created by fluvial erosion of the surrounding hills (fluvial sand source areas) to occupied fluvial deposition areas in Unit 3 on the valley floor (Griffiths *et al.* 2002, pp. 10–11). Occupied habitat areas of Unit 3 contain the physical or biological features essential to the conservation of *Astragalus lentiginosus* var. *coachellae* including stabilized and partially stabilized sand dunes, active and ephemeral sand fields, stabilized and partially stabilized sand fields, and mesquite hummocks that provide substrate components and conditions suitable for the growth of *A. l.* var. *coachellae* (Coachella Valley MSHCP/NCCP 2007, Table 10–1a). The fluvial sand deposits on the floodplain terraces in certain areas of Morongo Wash also provide substrate components and conditions suitable for growth of *A. l.* var. *coachellae* and support occurrences of the taxon. Unit 3 also contains areas over which unobstructed aeolian sand transport can occur.

The occupied areas in Unit 3 meet the definition of critical habitat because they contain the physical or biological features essential to the conservation of the taxon. The features in Unit 3 may require special management considerations or protection to address threats from nonnative plants, urban development, alteration of stream flow, OHV use in the occupied depositional floodplain terrace areas, and threats from alteration of stream flow that impact habitat in occupied areas. Please see the *Special Management Considerations or Protection* section of this proposed rule for a discussion of the threats to *Astragalus lentiginosus* var. *coachellae* habitat and potential management considerations.

The unoccupied areas in Unit 3 are essential for the conservation of *Astragalus lentiginosus* var. *coachellae* because they contain habitat within the Willow Hole Conservation Area identified by the Coachella Valley MSHCP/NCCP Planning Team as one of four Core Habitat areas for *A. l.* var. *coachellae* (Coachella Valley MSHCP/NCCP, pp. 9–21—9–22), because they contain portions of Mission Creek and Morongo Wash that support the fluvial sand transport process crucial to transport and deposit sand that provides the foundation of habitat for *A. l.* var. *coachellae* in the occupied depositional areas of Unit 3, and because they support the northernmost extent of the taxon's range and large occurrences containing high densities of the taxon. Each of these factors contributes to the overall genetic diversity of *A. l.* var. *coachellae* (Meinke *et al.* 2007, p. 35) and the maintenance of genetic diversity via the movement of seeds and pollinators (Meinke *et al.* 2007, p. 37). The large numbers of individuals also likely contribute numerous seeds to the soil seed bank. Unit 3 also contains the only area where *A. l.* var. *coachellae* is known to occur in large numbers on floodplain terraces of an active wash (Morongo Wash).

Unit 4: Thousand Palms System

Unit 4 consists of 3,667 ac (1,484 ha) of Federal land, 1,698 ac (687 ha) of State land, 279 ac (113 ha) of local government-owned land, 1,247 ac (505 ha) of private land, and 157 ac (63 ha) of water district land in the Coachella Valley, Riverside County. Unit 4 contains approximately 2,146 ac (868 ha) of unoccupied fluvial sand source and alluvial sand deposition areas associated with drainages originating in the Indio Hills. The remainder of Unit 4 consists of approximately 4,902 ac (1,984 ha) of occupied habitat area in the Thousand Palms Preserve along Ramon Road. In total, Unit 4 consists of 7,048 ac (2,852 ha) of land.

Unoccupied fluvial sand source and alluvial sand deposition areas in this unit contain active ephemeral washes that carry substrates from alluvial deposition areas (sand source areas) in Unit 4 to alluvial fan areas where they can be transported to occupied habitat areas via wind (Lancaster *et al.* 1993, p. 28). Occupied habitat areas of Unit 4 contain the physical or biological features essential to the conservation of *Astragalus lentiginosus* var. *coachellae* including active dunes, active sand fields, and mesquite hummocks that provide substrate components and conditions suitable for the growth of *A. l.* var. *coachellae* (Coachella Valley MSHCP/NCCP 2007, Table 10–1a), and areas over which unobstructed aeolian sand transport can occur.

The occupied areas in Unit 4 meet the definition of critical habitat because they contain the physical or biological features essential to the conservation of the taxon. The features in the occupied portion of Unit 4 may require special management considerations or protection to address threats from nonnative plants. According to Meinke *et al.* (2007, p. 18), this area supports infestations of *Brassica tournefortii;* researchers observed thousands of acres of *Astragalus lentiginosus* var. *coachellae* habitat inundated with dense populations of this nonnative species. Existing suburban development may require active management measures (for example, collection of sand from developed areas for redistribution within the wind movement corridor). The expansion of new urban development in sand source areas is also a threat to occupied habitat in this unit that may require special management considerations or protection, as are unauthorized OHV activity and a proposed flood control project that could disrupt or permanently destroy the sand transport system in the Thousand Palms area by diverting drainages that provide sand to occupied areas during large flooding events. Please see the *Special Management Considerations or Protection* section of this proposed rule for a discussion of the threats to *A. l.* var. *coachellae* habitat and potential management considerations.

The unoccupied areas in Unit 4 are essential for the conservation of *Astragalus lentiginosus* var. *coachellae* because they contain the Thousand Palms Habitat Area identified by the Coachella Valley MSHCP/NCCP Planning Team as one of four areas of Core Habitat for *A. l.* var. *coachellae* (Coachella Valley MSHCP/NCCP, p. 9–22), and because they contain alluvial sand deposits that serve as sand source for occupied areas of Unit 4 and that support the fluvial and aeolian sand transport processes crucial to transport sediment that provides the foundation of habitat for *A. l.* var. *coachellae* in the occupied depositional areas of Unit 4. Unit 4 is also essential because it supports occurrences containing large numbers of the taxon that contribute to the overall genetic diversity of *A. l.* var. *coachellae* (Meinke *et al.* 2007, p. 35), and because it is located in the southeasternmost portion of the taxon's range that is hydrologically independent and physically isolated from the other

units. As such, this unit is important to help buffer excessive losses in other parts of the range.

Effects of Critical Habitat Designation

Section 7 Consultation

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

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of ''destruction or adverse modification'' (50 CFR 402.02) (see *Gifford Pinchot Task Force* v. *U.S. Fish and Wildlife Service,* 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club* v. *U.S. Fish and Wildlife Service et al.,* 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the 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 continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

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

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

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

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

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

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

(3) Are economically and technologically feasible, and

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

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

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

Application of the ''Adverse Modification'' Standard

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

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

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

(1) Actions that would interrupt the fluvial or aeolian transport of sand to depositional areas occupied by *A. l.* var. *coachellae.*

(2) Actions that would damage or kill plants that trap sand, thereby creating unsuitable habitat (such as hummocks that contain *Prosopis glandulosa* var. *torreyana*) for *A. l.* var. *coachellae.*

(3) Actions such as channelization of waterways, which could decrease the sediment load of those waterways and thus decrease the amount or the deposition location of sand entering the sand transport system.

(4) Actions that contribute to the introduction or proliferation of nonnative plants, such as Saharan mustard, which may compete with *A. l.* var. *coachellae* for resources and interfere with the movement of sand.

(5) Actions such as development and landscaping that convert suitable *A. l.* var. *coachellae* habitat to groundcover that does not support the taxon.

(6) Actions such as OHV use that cause sufficient alteration of substrates supporting *A. l.* var. *coachellae* occurrences to make the habitat unsuitable to support the taxon.

Exemptions

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

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

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

(2) A statement of goals and priorities;

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

(4) A monitoring and adaptive management plan.

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

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

There are no Department of Defense lands within the proposed critical habitat designation and as a result no lands are being exempted under section 4(a)(3) of the Act.

Exclusions

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

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if 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 statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

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

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus; the educational benefits of mapping essential habitat for recovery of the listed species; and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan that provides equal to or more conservation than a critical habitat designation would provide.

In the case of *Astragalus lentiginosus* var. *coachellae,* the benefits of critical habitat include public awareness of *A. l.* var. *coachellae* presence and the importance of habitat protection, and in cases where a Federal nexus exists, increased habitat protection for *A. l.* var. *coachellae* due to the protection from adverse modification or destruction of critical habitat.

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

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

Based on the information provided by entities seeking exclusion, as well as any additional public comments we receive, we will evaluate whether certain lands in proposed critical habitat Units 1–4 are appropriate for exclusion from the final designation under section 4(b)(2) of the Act. If the analysis indicates that the benefits of excluding lands from the final designation outweigh the benefits of designating those lands as critical habitat, then the Secretary may exercise his discretion to exclude the lands from the final designation.

We are currently considering excluding the following areas from the critical habitat designation for *Astragalus lentiginosus* var. *coachellae* under section 4(b)(2) of the Act: tribal lands in Units 1 and 2, lands in all four units that are covered under the Coachella Valley MSHCP/NCCP, and lands in the City of Desert Hot Springs (if the City is added to the Coachella Valley MSHCP/NCCP permit before we finalize the critical habitat designation).

We are considering excluding these areas because we believe that they are appropriate for exclusion under the ''other relevant factor'' provisions of section 4(b)(2) of the Act. However, we specifically solicit comments on the inclusion or exclusion of such areas. In the paragraphs below, we provide information we will consider in our

analysis of the potential exclusion of these or other lands under section 4(b)(2) of the Act. We are not considering for exclusion any areas within the Western Riverside County MSHCP (all occur within Unit 1) because *Astragalus lentiginosus* var. *coachellae* is not a covered species under the plan.

Exclusions Based on Economic Impacts

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

An analysis of the economic impacts for our previous proposed critical habitat designation was conducted and made available to the public on September 27, 2005 (70 FR 56434). This economic analysis was finalized for the final rule to designate critical habitat for *Astragalus lentiginosus* var. *coachellae* as published in the **Federal Register** on December 14, 2005 (70 FR 74112). The previous economic analysis found potential economic impacts of the designation to include administrative costs associated with engaging in section 7 consultations, and project modification costs associated with management efforts taken to protect the taxon or its habitat. The potential economic impacts were expected to affect the following sectors: Residential and commercial development, flood control, water supply, energy development, public lands management, and transportation. After excluding land from the proposed critical habitat, the economic impact was estimated to be $7.78 million in undiscounted dollars, or $5.8 million and $4.2 million when using a 3 percent or 7 percent discount rate, respectively, over the next 20 years. Based on the 2005 economic analysis, we concluded that the designation of critical habitat for *A. l.* var. *coachellae,* as proposed in 2004, would not result in impacts to small businesses or the energy industry. This analysis is presented in the notice of availability for the economic analysis as published in the **Federal Register** on September 27, 2005 (70 FR 56434).

We will announce the availability of the current draft economic analysis on this revised designation of critical habitat 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 **FOR FURTHER INFORMATION CONTACT** section). During the development of a final critical habitat designation, we will consider economic impacts, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense (DOD) where a national security impact might exist. In preparing this proposal, we determined that there are no lands within the proposed designation of critical habitat that are owned or managed by the DOD, and, therefore, we anticipate no impact on national security. Consequently, the Secretary does not propose to exert his discretion to exclude any areas from the final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

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

Table 3 below provides approximate areas (ac, ha) of lands that meet the definition of critical habitat that we are considering for possible exclusion under section 4(b)(2) of the Act from the final critical habitat rule.

TABLE 3—AREAS CONSIDERED FOR EXCLUSION BY CRITICAL HABITAT UNIT

Unit	Basis for exclusion	Area considered for exclusion		Percent of unit total
		ac	ha	
Unit 1	Coachella Valley MSHCP/NCCP	2,089	845	59
	Tribal Lands (Morongo)	316	128	9
	Unit 1 Total	2,405	973	68
Unit 2	Coachella Valley MSHCP/NCCP	4,777	1,933	65
	Tribal Lands (Agua Caliente)	580	235	8
	Unit 2 Total	5,357	2,168	73
Unit 3	Coachella Valley MSHCP/NCCP	5,515	2,232	71
	City of Desert Hot Springs	1,788	724	23
	Unit 3 Total	7,303	2,956	94
Unit 4	Coachella Valley MSHCP/NCCP	3,381	1,368	48
Total		18,446	7,465	72

Tribal Lands—Exclusions Under Section 4(b)(2) of the Act

In accordance with the 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), we believe that fish, wildlife, and other natural resources on tribal lands are better managed under tribal authorities, policies, and programs than through Federal regulation wherever possible and practicable. Based on this philosophy, we believe that, in most cases, designation of tribal lands as critical habitat provides very little additional benefit to endangered and threatened species. Conversely, such designation is often viewed by tribes as unwarranted and an unwanted intrusion into tribal self-governance, thus compromising the government-to-government relationship essential to achieving our mutual goals of managing for healthy ecosystems upon which the viability of endangered and threatened species populations depend. We will take into consideration our partnerships and existing conservation actions that tribes have or are currently implementing when conducting our exclusion analysis in the final revised critical habitat designation. If the Secretary decides to exercise his discretion under section 4(b)(2) of the Act, we are considering lands covered by the tribes identified below for possible exclusion from final critical habitat.

We are considering the exclusion of 316 ac (128 ha) of *Astragalus lentiginosus* var. *coachellae* habitat proposed in Unit 1 under section 4(b)(2) of the Act on tribal lands that are owned or managed by the Morongo Band of Mission Indians (formerly the Morongo Band of Cahuilla Mission Indians of the Morongo Reservation), and 580 ac (235 ha) of *A. l.* var. *coachellae* habitat proposed in Unit 2 that are owned or managed by the Agua Caliente Band of Cahuilla Indians of the Agua Caliente Indian Reservation (Agua Caliente Band of Cahuilla Indians) on the basis of our partnership with these tribes and their ongoing conservation and wildlife management efforts. The Morongo Band of Mission Indians has not completed a management plan that specifically provides for conservation of *A. l.* var. *coachellae* on their lands. The Agua Caliente Band of Cahuilla Indians has been working with our office on developing a draft HCP that includes conservation measures for *A. l.* var. *coachellae.* Although the Agua Caliente Band of Cahuilla Indians notified us in a letter dated October 6, 2010, that they suspended their pursuit of a Section 10(a) permit for their draft HCP (ACBCI 2010a, p. 1), they are continuing to implement the draft HCP and will continue to protect and manage natural resources within their jurisdiction (ACBCI 2010b, p. ES–1). We are seeking public comment regarding whether the conservation needs of *A. l.* var. *coachellae* can be achieved by limiting the designation to non-tribal lands and the appropriateness of the inclusion or exclusion of these lands from the final revised critical habitat designation (see Public Comments section).

Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act

When evaluating a current land management or conservation plan (HCPs as well as other types) and the habitat management or protection it provides, we consider the following factors:

(1) Whether the plan is complete and provides the same or better level of protection from adverse modification or destruction than that provided through a consultation under section 7 of the Act;

(2) Whether there is a reasonable expectation that the conservation management strategies and actions will be implemented for the foreseeable future, based on past practices, written guidance, or regulations; and

(3) Whether the plan provides conservation strategies and measures consistent with currently accepted principles of conservation biology.

Habitat conservation plans often cover a wide range of species, including listed plant species and species that are not State or federally listed and would otherwise receive little protection from development. Many HCPs take years to develop, and upon completion, are consistent with recovery objectives for listed species that are covered within the plan area. Many HCPs also provide conservation benefits to listed and unlisted sensitive species through conservation measures and management and preservation of land in perpetuity.

The benefits of excluding lands with approved HCPs that cover listed plant species from critical habitat designation include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed by critical habitat. A related benefit of excluding lands covered by approved HCPs from critical habitat designation is the unhindered, continued ability it gives us to seek new partnerships with future plan participants, including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement conservation actions that we would be unable to accomplish otherwise. By excluding lands with approved HCPs, we preserve the integrity of our current partnerships and encourage additional conservation actions in the future.

Astragalus lentiginosus var. *coachellae* is a covered species under the Coachella Valley MSHCP/NCCP. The Secretary is considering exercising his discretion to exclude lands covered by this plan (including lands in the City of Desert Hot Springs, which are not covered presently by the HCP, but which we expect to be added to the HCP in the near future; continued consideration for exclusion from this designation is contingent upon Desert Hot Springs becoming a permittee under the HCP). In this proposed rule, we are seeking input from the stakeholders in this HCP and from the public on lands that the Secretary should consider for exclusion from the final designation of critical habitat. Below is a brief description of the lands proposed as critical habitat covered by the Coachella Valley MSHCP/NCCP.

Coachella Valley Multiple Species Habitat Conservation Plan (Coachella Valley MSHCP)

The Coachella Valley MSHCP/NCCP is a large-scale, multi-jurisdictional habitat conservation plan encompassing about 1.1 million ac (445,156 ha) in the Coachella Valley of central Riverside County. The Coachella Valley MSHCP/NCCP is also a ''Subregional Plan'' under the State of California's Natural Community Conservation Planning (NCCP) Act, as amended. An additional 69,000 ac (27,923 ha) of tribal reservation lands distributed within the plan area boundary are not included in the Coachella Valley MSHCP/NCCP. The Coachella Valley MSHCP/NCCP addresses 27 listed and unlisted ''covered species,'' including *Astragalus lentiginosus* var. *coachellae.* On October 1, 2008, 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/NCCP for a period of 75 years. Participants in the Coachella Valley MSHCP/NCCP include eight cities (Cathedral City, Coachella, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage); the County of Riverside, including the

Riverside County Flood Control and Water Conservation District, Riverside County Parks and Open Space District, and Riverside County Waste Management District; the Coachella Valley Association of Governments; Coachella Valley Water District; Imperial Irrigation District; California Department of Transportation; California State Parks; Coachella Valley Mountains Conservancy; and the Coachella Valley Conservation Commission (the created joint powers regional authority). The Coachella Valley MSHCP/NCCP was designed to establish a multiple-species habitat conservation program that minimizes and mitigates the expected loss of habitat and incidental take of covered species, including *A. l.* var. *coachellae* (USFWS 2008, pp. 1–207, and Appendix A, pp. 10–50).

The permit covers incidental take resulting from habitat loss and disturbance associated with urban development and other proposed covered activities. These activities include public and private development within the plan area that requires discretionary and ministerial actions by permittees subject to consistency with the Coachella Valley MSHCP/NCCP policies. An associated Management and Monitoring Program is also included in the Coachella Valley MSHCP/NCCP and identifies specific management actions for the conservation of *Astragalus lentiginosus* var. *coachellae.*

Approximately 36,398 ac (14,730 ha) of modeled habitat for *Astragalus lentiginosus* var. *coachellae* occurs in the Coachella Valley MSHCP/NCCP Plan Area (Coachella Valley MSHCP/NCCP 2007, pp. 9–25). Under the Coachella Valley MSHCP/NCCP, approximately 15,706 ac (6,356 ha) of modeled *A. l.* var. *coachellae* habitat will be lost to development. To mitigate this loss, the Coachella Valley MSHCP/NCCP will preserve 7,176 ac (2,904 ha) of modeled habitat for the taxon in perpetuity. Another 4,497 ac (1,820 ha) are anticipated to be conserved through complementary and cooperative efforts by Federal and State agencies and non-governmental organizations. Additionally, 7,707 ac (3,118 ha) of *A. l.* var. *coachellae* modeled habitat within the Plan Area were preserved prior to completion of the Coachella Valley MSHCP/NCCP (acres which coincidentally occur on three Coachella Valley fringe-toed lizard (*Uma inornata*) reserves in the Coachella Valley Preserve System). These lands and the 11,650 ac (4,715 ha) of lands yet to be conserved under the Coachella Valley MSHCP/NCCP will total 19,357 ac (7,833 ha) of *A. l.* var. *coachellae* modeled habitat within the Coachella Valley MSHCP/NCCP Reserve System. As habitat areas are acquired under the Coachella Valley MSHCP/NCCP, they are legally protected within the Reserve System and the direct impacts of development are precluded. This protection, as well as implementation of the avoidance, minimization, and mitigation measures and management and monitoring programs identified in the Coachella Valley MSHCP/NCCP, will reduce impacts to this taxon compared to what would have occurred otherwise.

We are considering the exclusion of lands covered by the Coachella Valley MSHCP/NCCP from the critical habitat designation to preserve the integrity of our partnerships with the Coachella Valley MSHCP/NCCP permittees and because of the protections afforded to the taxon and its habitat by the HCP, which may provide protection whether or not a Federal nexus exists and, therefore, may provide greater protection to the taxon and its habitat than critical habitat designation, especially on non-Federal lands (Unit 1: 2,089 ac (845 ha); Unit 2: 4,777 ac (1,933 ha); Unit 3: 7,303 ac (2,956 ha); Unit 4: 3,381 ac (1,368 ha); see Table 3 above). These lands include 1,788 ac (724 ha) of land in the City of Desert Hot Springs, which is not presently a permittee under the Coachella Valley MSHCP/NCCP, but which may be added to the HCP before we finalize this revised critical habitat designation.

Consistent with the terms of the Coachella Valley MSHCP/NCCP Implementing Agreement, the Secretary is considering exercising his discretion to exclude 17,550 ac (7,102 ha) of *Astragalus lentiginosus* var. *coachellae* habitat on permittee-owned or controlled land in Units 1, 2, 3, and 4 that meet the definition of critical habitat for *A. l.* var. *coachellae* within the Coachella Valley MSHCP/NCCP under section 4(b)(2) of the Act. The 1998 final listing rule for *Astragalus lentiginosus* var. *coachellae* attributed the primary threat from present or threatened destruction, modification or curtailment of its habitat or to urban development, development of wind energy parks, and degradation by off-highway vehicle (OHV) use (63 FR 53598; October 6, 1998). The Coachella Valley MSHCP/NCCP helps to address these threats through a regional planning effort, and outlines specific objectives and criteria for the conservation of *A. l.* var. *coachellae.* We intend to exclude critical habitat from areas covered by the Coachella Valley MSHCP/NCCP based on the protections outlined above and per the provisions laid out in the Implementing Agreement, to the extent consistent with the requirements of 4(b)(2) of the Act. We encourage any public comment in relation to our consideration of the areas in Units 1, 2, 3, and 4 for inclusion or exclusion (see Public Comments section above).

Peer Review

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

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, the final decision may differ from this proposal.

Public Hearings

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

Required Determinations

Regulatory Planning and Review—Executive Order 12866

The Office of Management and Budget (OMB) has determined that this rule is not significant and has not reviewed this proposed rule under Executive Order 12866 (Regulatory Planning and Review). 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 (5 U.S.C 801 *et seq.*), 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 effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, we lack the updated and complete economic information necessary 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 Executive Order 12866. This draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, we will announce availability of the draft economic analysis of the proposed designation 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 rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination.

An analysis of the economic impacts for our previous proposed critical habitat designation was conducted and made available to the public on September 27, 2005 (70 FR 56434). This economic analysis was finalized for the final rule to designate critical habitat for *Astragalus lentiginosus* var. *coachellae.* During that previous proposed rulemaking process, we certified that the proposed designation of critical habitat for *A. l.* var. *coachellae* would not have a significant economic impact on a substantial number of small entities and that the proposed rule did not meet the criteria under SBREFA as a major rule. Therefore, an initial regulatory flexibility analysis was not required. In summary, we reasoned that probable future land uses in a subset of the areas proposed for designation were expected to have a Federal nexus or require section 7 consultation (for example, development projects or projects that alter stream flow). We determined that the most likely Federal involvement would be associated with activities involving Federal Highways Administration, Bureau of Indian Affairs, U.S. Army Corps of Engineers, and Bureau of Land Management, and that the critical habitat designation might result in project modifications when proposed Federal activities would destroy or adversely modify critical habitat. We concluded that, while this might occur, it was not expected frequently enough to affect a substantial number of small entities, and even when it did occur, it was not expected to result in a significant economic impact because we expected that most proposed projects, with or without modification, could be implemented in such a way as to avoid adversely modifying critical habitat, as the measures included in reasonable and prudent alternatives must be economically feasible and consistent with the proposed action.

This economic analysis was finalized for the final rule to designate critical habitat for *Astragalus lentiginosus* var. *coachellae* as published in the **Federal Register** on December 14, 2005 (70 FR 74112). The previous economic analysis found potential economic impacts of the designation to include administrative costs associated with engaging in section 7 consultations, and project modification costs associated with management efforts taken to protect the taxon or its habitat. The potential economic impacts were expected to affect the following sectors: residential and commercial development, flood control, water supply, energy development, public lands management, and transportation. After excluding land from the proposed critical habitat, the economic impact was estimated to be $7.78 million in undiscounted dollars, or $5.8 million and $4.2 million when using a 3 percent or 7 percent discount rate, respectively, over the next 20 years. Based on the 2005 economic analysis, we concluded that the designation of critical habitat for *A. l.* var. *coachellae,* as proposed in 2004, would not result in impacts to small businesses or the energy industry. This analysis is presented in the notice of availability for the economic analysis as published in the **Federal Register** on September 27, 2005 (70 FR 56434).

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.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not expect this action to significantly affect energy supplies, distribution, or use because, based on the economic analysis performed for the previous designation, we do not anticipate that designation of the areas proposed as critical habitat for *Astragalus lentiginosus* var. *coachellae* will impact the energy industry. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

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

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

(1) This rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' These terms are defined in 2 U.S.C. 658(5)–(7). ''Federal intergovernmental mandate'' includes a regulation that ''would impose an enforceable duty upon State, local, or tribal governments'' with two exceptions. It excludes ''a condition of Federal assistance.'' It also excludes ''a duty arising from participation in a voluntary Federal program,'' unless the regulation ''relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,'' if the provision would ''increase the stringency of conditions of

assistance'' or ''place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding,'' and the State, local, or tribal governments ''lack authority'' to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. ''Federal private sector mandate'' includes a regulation that ''would impose an enforceable duty upon the private sector, except (i) A condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.''

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

(2) We do not believe that this rule would significantly or uniquely affect small governments because this proposed rule would not substantially change the impacts associated with current management guidelines within Coachella Valley MSHCP/NCCP areas. Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment if appropriate.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights''), this rule is not anticipated to have significant takings implications. As discussed above, the designation of critical habitat affects only Federal actions. Although private parties that receive Federal funding, assistance, or 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. Due to current public knowledge of the species protections both within and outside of the proposed areas, we do not anticipate that property values would be affected by the critical habitat designation. However, we have not yet completed the economic analysis for this proposed rule. Once the economic analysis is available, we will review and revise this preliminary assessment as warranted, and prepare a Takings Implication Assessment.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by *Astragalus lentiginosus* var. *coachellae* may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the taxon are more clearly defined, the elements of the features of the habitat necessary to the conservation of the taxon are specifically identified, and the areas that are otherwise essential for the conservation of the taxon are also identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist 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), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions to define the critical habitat boundaries and identifies the elements of physical or biological features essential to the conservation of *Astragalus lentiginosus* var. *coachellae* within the proposed areas to assist the public in understanding the habitat needs of the taxon.

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

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule would 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 U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the

Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;

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

(3) Use clear language rather than jargon;

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

(5) Use lists and tables wherever possible.

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

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

We are currently coordinating with affected tribes regarding this proposed critical habitat designation, and have included tribal lands in this revised proposal. We are requesting public comment on the appropriateness of including or excluding these lands in the final rule. We will continue to coordinate with the tribal governments during the designation process.

References Cited

A complete list of references cited in this proposed rulemaking is available on the Internet at *http://www.regulations.gov* and upon request from the Carlsbad Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the Carlsbad Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

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

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.12(h) by revising the entry for ''*Astragalus lentiginosus* var. *coachellae*'' under ''Flowering Plants'' in the List of Endangered and Threatened Plants to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
*	*	*	*	*	*	*	*
Astragalus lentiginosus var. *coachellae*.	Coachella Valley milk-vetch.	U.S.A. (CA)	Fabaceae	E	647	17.96(a)	NA
*	*	*	*	*	*	*	*

3. Amend § 17.96(a) by revising the entry for ''*Astragalus lentiginosus* var. *coachellae* (Coachella Valley Milk-Vetch)'' under Family Fabaceae to read as follows:

§ 17.96 Critical habitat—plants.

(a) *Flowering plants.*

* * * * *

Family Fabaceae: *Astragalus lentiginosus* var. *coachellae* (Coachella Valley milk-vetch)

(1) Critical habitat units are depicted for Riverside County, California, on the maps below.

(2) Within these areas, the primary constituent element of the physical or biological features essential to the conservation of *A. l.* var. *coachellae* consists of

(i) Sand formations associated with the sand transport system in Coachella Valley, which

(A) Include active sand dunes, stabilized or partially stabilized sand dunes, active or stabilized sand fields (including hummocks forming on leeward sides of shrubs), ephemeral sand fields or dunes, and fluvial sand deposits on floodplain terraces of active washes.

(B) Are found within the fluvial sand depositional areas, and the aeolian sand source, transport, and depositional areas of the sand transport system.

(C) Are comprised of sand originating in fluvial sand source areas (unoccupied by the taxon at the time of listing) in the hills surrounding Coachella Valley, which is moved into the valley by water (fluvial transport) and through the valley by wind (aeolian transport).

(ii) [Reserved].

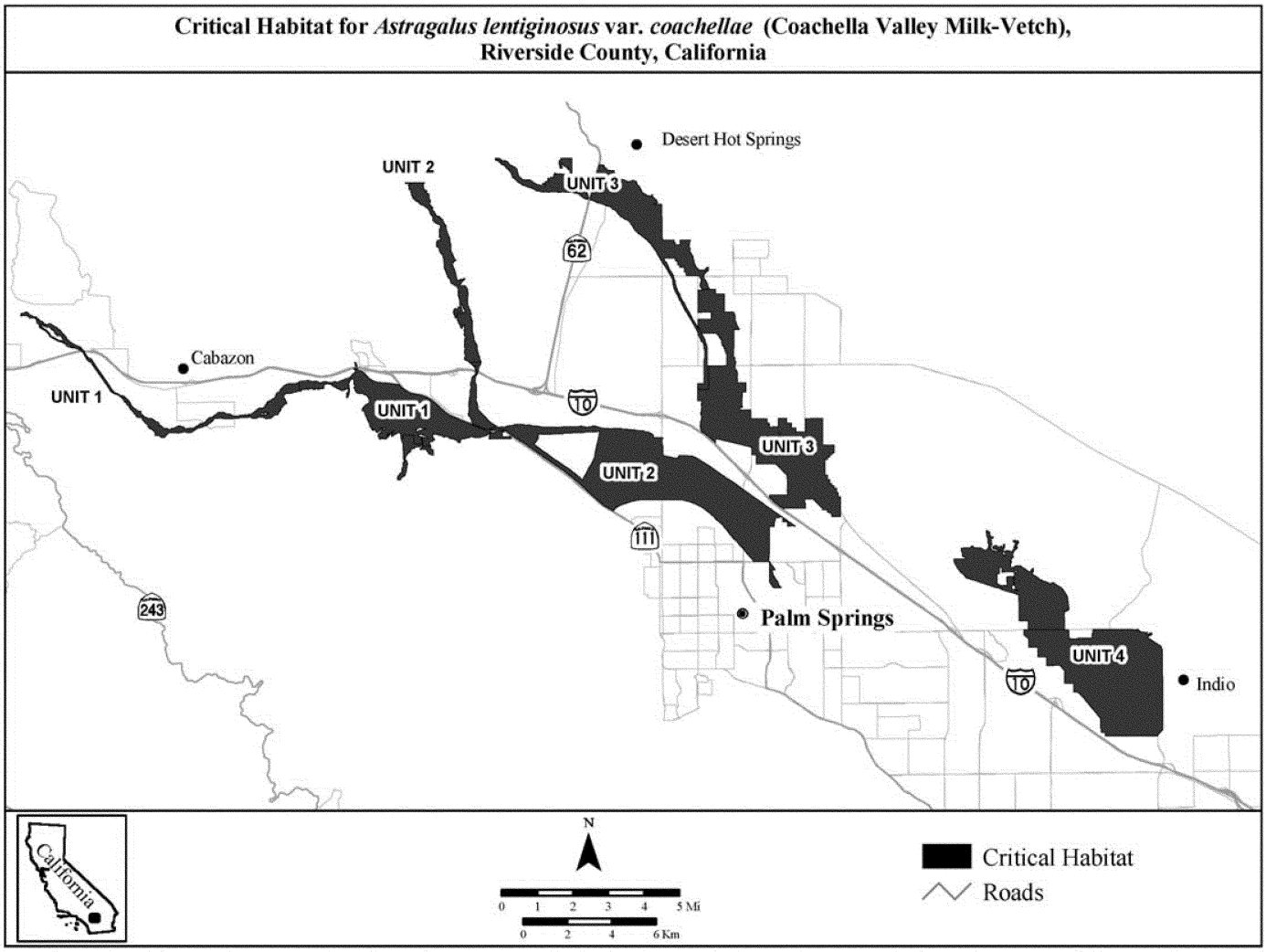
(3) Critical habitat does not include manmade structures existing (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) *Critical habitat map units.* Data layers defining map units were created using a base of U.S. Geological Survey 7.5′ quadrangle maps. Critical habitat units were then mapped using Universal Transverse Mercator (UTM) zone 11, North American Datum (NAD) 1983 coordinates.

(5) **Note:** Index map of critical habitat units for *Astragalus lentiginosus* var.

coachellae (Coachella Valley milk-vetch) follows:

BILLING CODE 4310–55–P

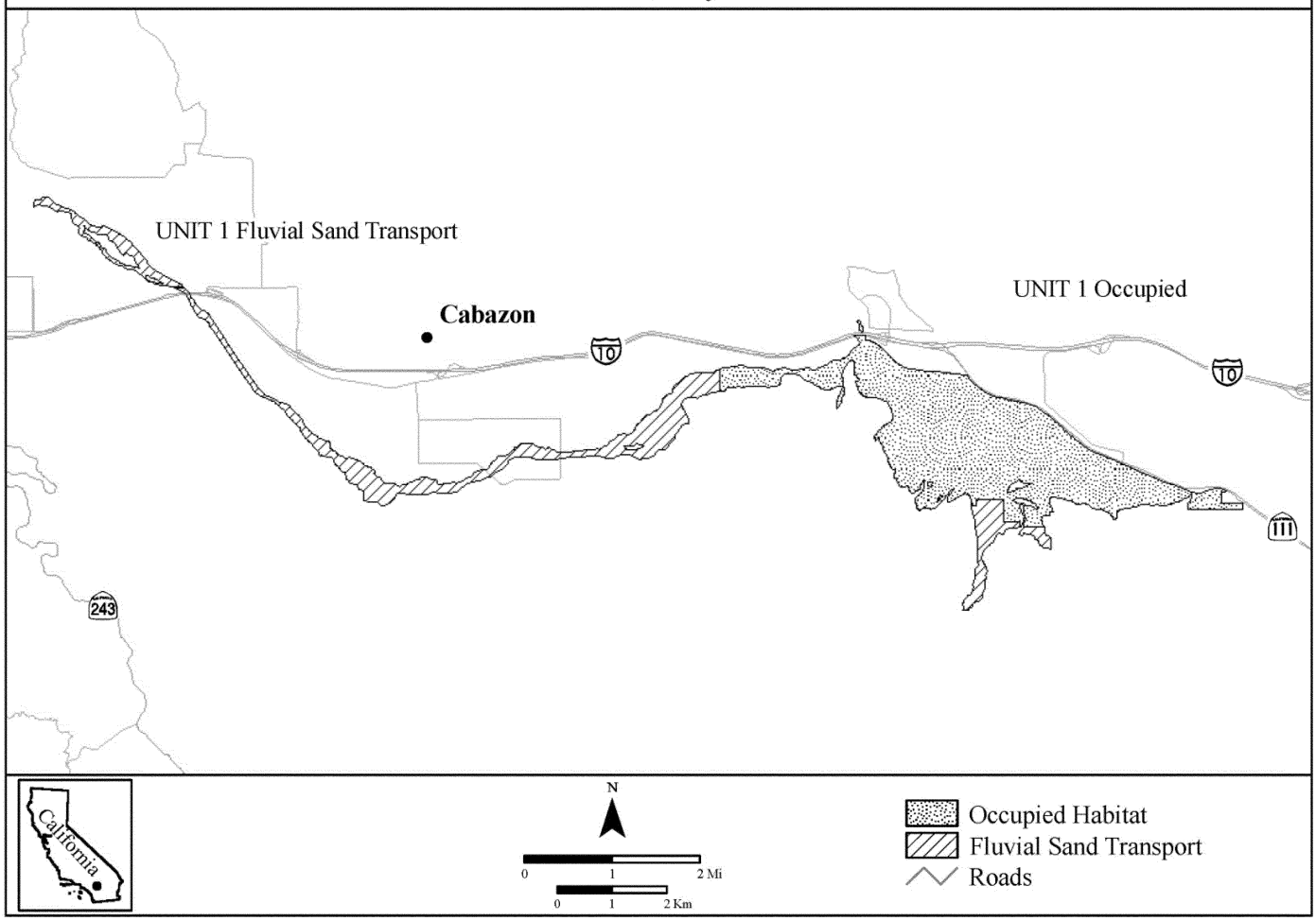


(6) Unit 1: San Gorgonio River/Snow Creek System, Riverside County, California.

(i) [Reserved for textual description of Unit 1: San Gorgonio River/Snow Creek System, Riverside County, California].

(ii) **Note:** Map of Unit 1: San Gorgonio River/Snow Creek System, Riverside County, California, follows:

Critical Habitat for *Astragalus lentiginosus* var. *coachellae* (Coachella Valley Milk-Vetch), Unit 1, Riverside County, California

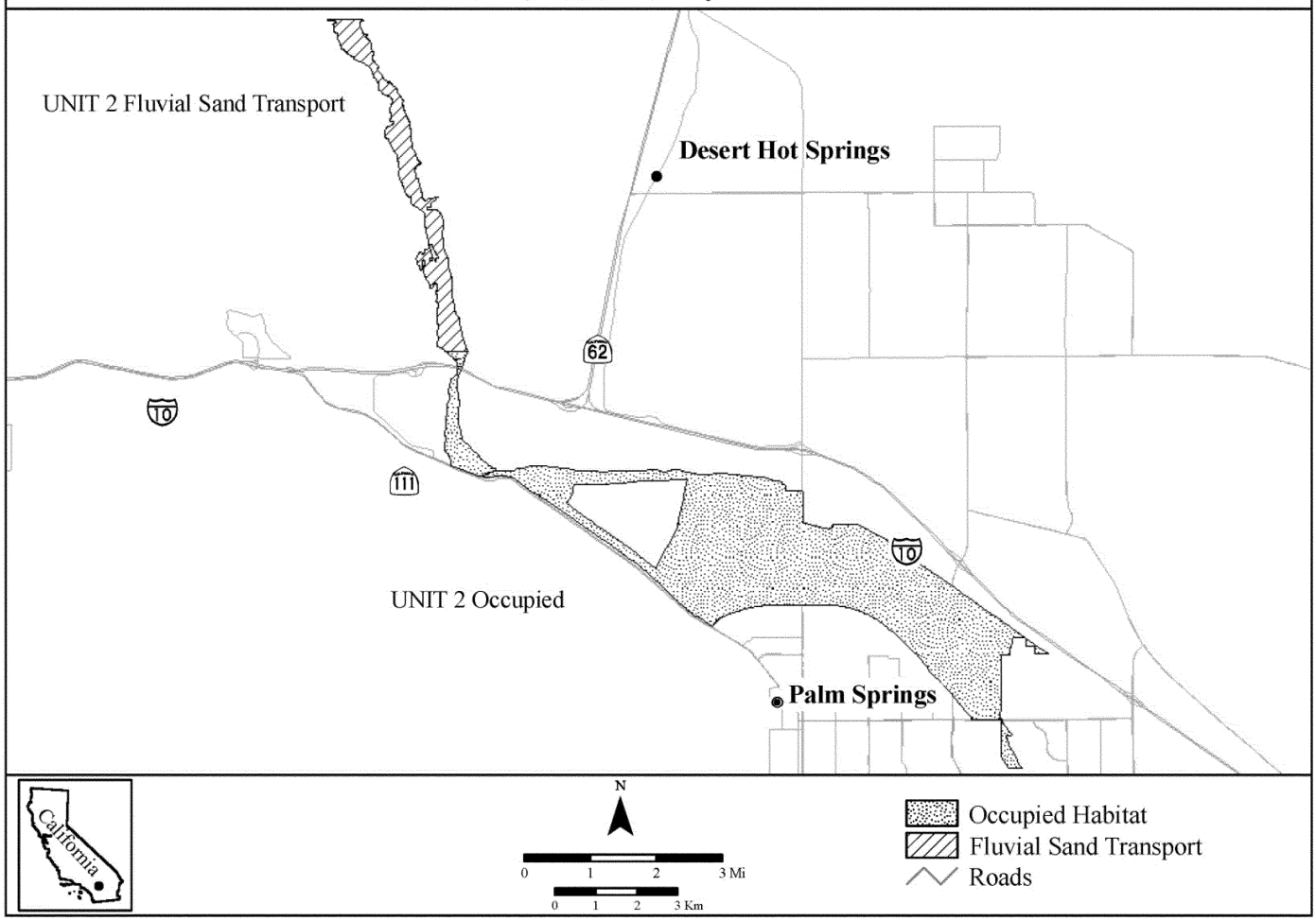


(7) Unit 2: Whitewater River System, Riverside County, California.

(i) [Reserved for textual description of Unit 2: Whitewater River System, Riverside County, California]

(ii) **Note:** Map of Unit 2: Whitewater River System, Riverside County, California, follows:

Critical Habitat for *Astragalus lentiginosus* var. *coachellae* (Coachella Valley Milk-Vetch), Unit 2, Riverside County, California

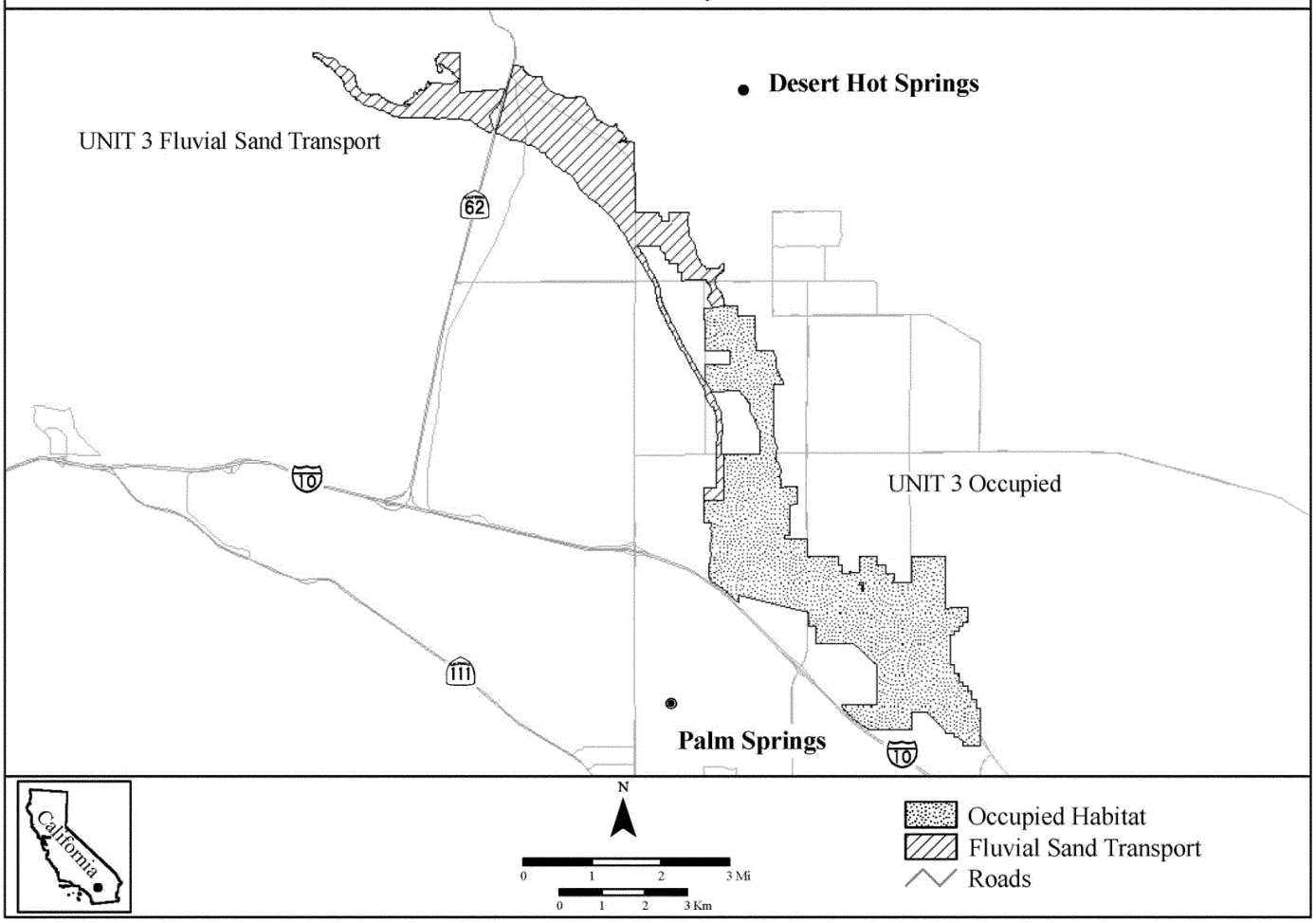


(8) Unit 3: Mission Creek/Morongo Wash System, Riverside County, California.

(i) [Reserved for textual description of Unit 3: Mission Creek/Morongo Wash System, Riverside County, California]

(ii) **Note**: Map of Unit 3: Mission Creek/Morongo Wash System, Riverside County, California, follows:

Critical Habitat for *Astragalus lentiginosus* var. *coachellae* (Coachella Valley Milk-Vetch), Unit 3, Riverside County, California

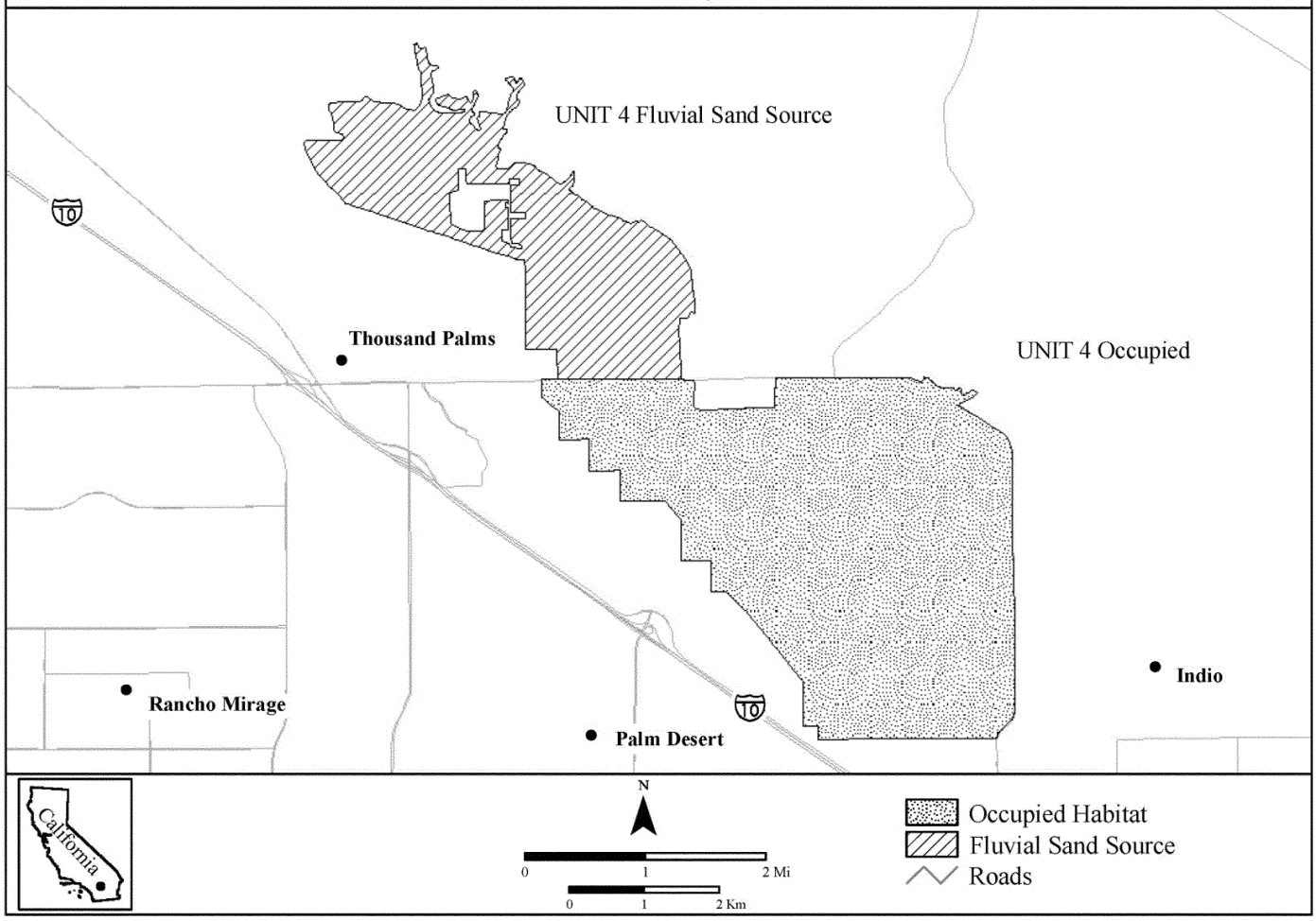


(9) Unit 4: Thousand Palms System, Riverside County, California.

(i) [Reserved for textual description of Unit 4: Thousand Palms System, Riverside County, California]

(ii) **Note:** Map of Unit 4: Thousand Palms System, Riverside County, California follows:

Critical Habitat for *Astragalus lentiginosus* var. *coachellae* (Coachella Valley Milk-Vetch), Unit 4, Riverside County, California



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Dated: August 15, 2011.

Rachel Jacobson,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2011–21442 Filed 8–24–11; 8:45 am]

BILLING CODE 4310–55–C