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Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Five Carbonate Plants From the San Bernardino Mountains in Southern California; Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AI27

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Five Carbonate Plants From the San Bernardino Mountains in Southern California

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: Pursuant to the Endangered Species Act of 1973, as amended (Act), we, the U.S. Fish and Wildlife Service (Service), are designating critical habitat for five plants endemic (restricted) primarily to carbonate-derived soils in the San Bernardino Mountains of southern California. Four of the plants, *Astragalus albens* (Cushenbury milk-vetch), *Eriogonum ovalifolium* var. *vineum* (Cushenbury buckwheat), *Lesquerella kingii* ssp. *bernardina* (San Bernardino Mountains bladderpod), and *Oxytheca parishii* var. *goodmaniana* (Cushenbury oxytheca) are federally listed as endangered and one plant, *Erigeron parishii* (Parish's daisy), is federally listed as threatened. The following total area is designated as critical habitat for each of the following plants in San Bernardino County, California: *A. albens,* approximately 1,765 hectares (ha) (4,365 acres (ac)); *Erigeron parishii,* approximately 1,790 ha (4,420 ac); *Eriogonum ovalifolium* var. *vineum,* approximately 2,815 ha (6,955 ac); *L. kingii* ssp. *bernardina,* approximately 415 ha (1,025 ac); and *O. parishii* var. *goodmaniana,* approximately 1,275 ha (3,150 ac). Because of the considerable overlap of the areas designated as critical habitat for each of the five carbonate plants, the total area being designated as critical habitat is approximately 5,335 ha (13,180 ac).

Federal agencies proposing, authorizing, or funding actions that may affect the areas designated as critical habitat must consult with us on the effects of the proposed actions pursuant to section 7(a)(2) of the Act.

DATES: The effective date of this rule is January 23, 2003.

ADDRESSES: You may inspect the supporting record for this rule at the Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 6010 Hidden Valley Road, Carlsbad, CA 92009, by appointment during normal business hours.

FOR FURTHER INFORMATION CONTACT: The Carlsbad Fish and Wildlife Office, at the above address; telephone 760/431–9440, facsimile 760/431–5902. Information regarding this designation is available in alternate formats upon request.

SUPPLEMENTARY INFORMATION:

Background

The five plants addressed in this designation of critical habitat, *Astragalus albens* (Cushenbury milk-vetch), *Erigeron parishii* (Parish's daisy), *Eriogonum ovalifolium* var. *vineum* (Cushenbury buckwheat), *Lesquerella kingii* ssp. *bernardina* (San Bernardino Mountains bladderpod), and *Oxytheca parishii* var. *goodmaniana* (Cushenbury oxytheca) (collectively called ''carbonate plants'' in this document), are restricted primarily to carbonate-derived soils in the San Bernardino Mountains of San Bernardino County, California (USFWS 1994). Collectively, these five species are found along a 56-kilometer (km) (35-mile (mi)) portion of the San Bernardino Mountains between 1,171 and 2,682 meters (m) (3,842 and 8,800 feet (ft)) in elevation. This area contains outcrops of carbonate substrates (*e.g.,* parent rock), primarily limestone and dolomite, in several bands running on an east-west axis along the desert-facing slopes of the San Bernardino Mountains; it is generally known as the ''carbonate belt.'' Carbonate endemics are most uncommon in California, though well known worldwide (Kruckeberg 2002). With the exception of one northern California carbonate endemic species, the carbonate endemics of the San Bernardino Mountains of southern California, including the species addressed in this rulemaking, are the only ones in California.

Limestone mining was cited as the primary threat to the five carbonate plants in the final rule listing these species as endangered or threatened (USFWS 1994). The threats to these plants continue to be population reduction and habitat loss, degradation, and fragmentation from surface mining activities. The carbonate plants occur mainly on public lands with unpatented mining claims or on private lands that have been patented (converted from public to private). At the time of listing, a significant number of carbonate plant occurrences and carbonate plant habitats had been negatively affected (USFWS 1994). Carbonate plant losses and habitat destruction/degradation are expected to continue under ongoing and expanded limestone mining operations.

The U.S. Forest Service (USFS), the Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service (Service), and a number of private stakeholders (*e.g.*, mining interests) are in the process of developing the Carbonate Habitat Management Strategy (draft CHMS) to conserve four of the five subject carbonate plants while accommodating other land uses. The USFS is the lead agency for this action. The goals of the CHMS are: (1) To protect the listed plants and the habitat components they require; (2) to guide impact minimization and compensation for unavoidable impacts; (3) to streamline reviews of mining activities in carbonate plant habitat; (4) to guide habitat restoration; and (5) to plan and provide for long-term needs of both the mining industry and listed species conservation. One of the primary tasks of the CHMS is to identify and establish conservation areas for carbonate plant species. Other local or regional habitat conservation planning efforts within areas of carbonate plant habitat include the California Desert Conservation Area Plan (CDCA) and the West Mojave Plan. BLM is the lead agency for both plans.

There are approximately 13,200 ha (32,600 ac) of carbonate substrates in the northeastern portion of the San Bernardino Mountains that may provide suitable habitat for, and may be associated with most of, the carbonate plants (USFWS 1994, Neel 2000, San Bernardino National Forest (SBNF) geographic information system (GIS) data 2001). This area of carbonate substrates is contained within the 64,900 ha (160,300 ac) draft CHMS planning area. According to the most current model being used in the CHMS process, the SBNF Carbonate Species Suitable Habitat Model (Redar and Eliason, *in litt.* 2001), there is a combined total of approximately 19,700 ha (48,669 ac) of suitable carbonate plant habitat for the carbonate plants, based on a combination of plant associations, carbonate substrate and soils derived from carbonate substrate (the modeled suitable habitat area is not equal to the sum of modeled suitable habitat area for each species because there is some overlap in the distribution of the species). Based on this model, the estimated suitable habitat for each species is: *Astragalus albens,* approximately 6,868 ha (16,964 ac); *Erigeron parishii,* approximately 8,428 ha (20,818 ac); *Eriogonum ovalifolium* var. *vineum,* approximately 8,949 ha (22,103 ac); *Lesquerella kingii* ssp. *bernardina,* approximately 6,753 ha (16,679 ac); and *Oxytheca parishii* var. *goodmaniana,* approximately 7,518 ha (18,570 ac). It should be noted that the SBNF habitat model is limited by mapping resolution, and therefore, may

contain some unsuitable habitat areas and may leave out some areas that may contain suitable habitat. The majority of known occurrences of the carbonate plants addressed by the draft CHMS are in the modeled habitat area.

The California Native Plant Society's Inventory of Rare and Endangered Plants of California (CNPS Inventory) (CNPS 2001) classifies each of the five carbonate plants as List 1B; which they define as rare, threatened, or endangered in California and elsewhere. The CNPS Inventory further describes the rarity of all but one of the carbonate plants as ''one to several highly restricted occurrences'' (with *Erigeron parishii* ''distributed in a limited number of occurrences''). The CNPS Inventory also classifies each of the carbonate plants as ''endangered throughout its range.''

The five carbonate plant species in this rulemaking are treated as a group because they are generally restricted to soils that are ultimately derived from limestone, dolomite, or other substrates rich in calcium carbonate in the San Bernardino Mountains, California, and face similar threats. However, each of the five carbonate plants represents a distinct evolutionary lineage, and each has a unique set of ecological requirements and tolerances (Neel 2000).

Species Descriptions

Astragalus Albens (Cushenbury Milk-Vetch)

Astragalus albens was described by Edward L. Greene (1885) based on a collection made by Samuel B. Parish and William F. Parish in 1882. Rydberg (1927) placed this species in the genus *Hamosa.* Rupert Barneby (1964) includes *Hamosa* in the genus *Astragalus.* Barneby (1959), Munz (1974), and Spellenberg (1993), all recognize this species as *Astragalus albens.*

Astragalus albens is a small plant in the pea family (Fabaceae). Spellenburg (1993) describes the species as follows. Individual plants are annual to sometimes perennial. The slender silvery-white-haired stems are prostrate (lie flat on the ground), up to 30 centimeters (cm) (1 ft) long, with compound leaves consisting of 5 to 9 small leaflets. The plant's pink-purple flowers occur in 5 to 14 flowered terminal racemes (flower clusters). The upper petal of each flower is up to 1 cm (0.4 inch (in)) long. The fruits are 10 to 18 millimeters (mm) (0.4 to 0.7 in) long and up to 3.5 mm (0.1 in) wide. The crescent shaped fruits are three sided, have two chambers, and become papery in maturity. The plants generally flower from March to May.

Occurrences of *Astragalus albens* are scattered along the carbonate belt in the northeastern San Bernardino Mountains extending from Dry Canyon southeastward to the head of Lone Valley, a range of 24 km (15 mi) (Barrows 1988a; California Natural Diversity Data Base (CNDDB), CDFG 2002; CNPS 2001; USFWS 1994). In the final rule to list *Astragalus albens,* we indicated that there were fewer than 20 known occurrences (USFWS 1994). The CNDDB (CDFG 2002) identifies 17 extant ''element occurrences'' (*e.g.*, species occurrences). The SBNF mapped 103 site-specific localities of this species for their detailed draft CHMS maps (SBNF, Unpublished GIS data, 2001).

Astragalus albens is typically found within singleleaf pinyon-Utah juniper, blackbush scrub, singleleaf pinyon, pinyon woodland, pinyon-juniper woodland, and Joshua tree woodland vegetation communities (Gonella 1994, Gonella and Neel 1995, Neel 2000). Plants closely associated with *A. albens* include *Fremontodendron californicum* (flannelbush), *Coleogyne ramosissima* (blackbush), *Echinocereus triglochidiatus* var. *mojavensis* (Mound cactus), *Prunus fasciculatus* (desert almond), and *Yucca schidigera* (Mojave yucca) (Gonella 1994, Gonella and Neel 1995).

Astragalus albens is typically found on carbonate soils derived directly from decomposing limestone bedrock along dry flats and slopes, and occasionally rocky washes (Eliason 2002). The species may also be associated with disturbed sites since there have been a few localized occurrences of the species observed on long-disused roads and recently deposited slide materials (White 2002). Plants are generally found in areas with an open canopy cover, little accumulation of organic material, rock cover exceeding 75 percent, and gentle to moderate slopes (5 to 30 percent) (Neel 2000). Most *Astragalus albens* occurrences are found at elevations between 1,524 and 2,012 m (5,000 and 6,600 ft) (USFWS 1994), but Neel (2000) documented the elevation range between 1,171 and 2,013 m (3,864 and 6,604 ft). This range is at the lowest elevational limit of the five carbonate plant species discussed in this rule (Gonella and Neel 1995). Known occupied habitat for this species is mostly correlated with the Bird Spring Formation, Permian and Pennsylvanian age carbonate rock (Redar and Eliason, *in litt.* 2001). Soils at sites associated with *Astragalus albens* have a higher percentage of calcium than soils not associated with this species (Gonella and Neel 1995).

Erigeron Parishii (Parish's Daisy)

Erigeron parishii was described by Asa Gray (1884) based on specimens collected by Samuel B. Parish at Cushenbury Spring in 1882. *Erigeron parishii* is a perennial herb of the aster family (Asteraceae). Plants grow 10 to 35 cm (4 to 14 in) high (Nesom 1993). The simple, linear leaves are 3 to 6 cm (1 to 2 in) long and soft, silvery-hairy (Nesom 1993, Keck 1959). Flower heads are solitary borne at the tips of leafy stems, with bluish to pink or white ray flowers and yellow disk flowers (Nesom 1993, Keck 1959). Grayish-green, glandular bracts surround each flower head (Nesom 1993, USFWS 1994). The plants generally flower from May through June (CNPS 2001).

Erigeron parishii has the widest geographic distribution of the five carbonate plants, with a range that spans approximately 56 km (35 mi) along the carbonate belt in the northeastern San Bernardino Mountains, extending from Pioneertown in the east to the northern flanks of White Mountain in the west (USFWS 1994, Eliason 2002). Its range of occurrence includes Tip Top Mountain and in Arctic, Cushenbury, Arrastre, and Rattlesnake Canyons (Krantz 1979a, Barrows 1988b, USFWS 1994, CDFG 2002). Recent surveys in Long Canyon (the historical eastern-most occurrence) did not locate any *Erigeron parishii* plants (Neel 2000). We identified 25 occurrences of *Erigeron parishii* in the final listing rule (USFWS 1994). The CNDDB (CDFG 2002) identifies 34 extant element occurrences. The SBNF has mapped 87 localized occurrences of this species for their detailed draft CHMS maps (SBNF, Unpublished GIS data, 2001).

Erigeron parishii is typically associated with singleleaf pinyon-Utah juniper, singleleaf pinyon, pinyon-juniper woodlands, blackbush scrub, and creosote bush-bursage scrub vegetation communities (USFWS 1994, Neel 2000, Neel and Ellstrand 2001). Plants closely associated with *Erigeron parishii* include *Pinus monophylla* (singleleaf pinyon), *Juniperus californica* (California juniper), *Yucca brevifolia* (Joshua tree), *Coleogyne ramosissima,* and *Astragalus albens* (Gonella 1994, Gonella and Neel 1995, CDFG 2002).

Erigeron parishii typically grows on limestone or dolomite soils occurring on dry, rocky slopes, active washes and outwash plains on carbonate derived alluvium (USFWS 1994, White 2002). Some *E. parishii* occurrences grow on a

granite/limestone interface, usually when granitic parent material has been overlaid with limestone materials washed down from upslope (USFWS 1994). Occurrences at the Burns Pinyon Ridge Reserve/Pioneertown area grows on quartz monzonite soils where there is no apparent limestone alluvium (Neel 2000). *Erigeron parishii* is generally found at elevations between 1,171 and 1,950 m (3,842 and 6,400 ft), which is at the lower elevations of the carbonate belt (USFWS 1994, Neel 2000). It is most commonly found in areas with slopes less than 10 degrees (Neel 2000).

Eriogonum Ovalifolium var. Vineum (Cushenbury Buckwheat)

Eriogonum ovalifolium var. *vineum* was originally described as *Eriogonum vineum* by John Kunkel Small (1898) based on an 1894 collection made by Samuel B. Parish near Rose Mine in the San Bernardino Mountains. Nelson (1911) treated the plant as a variety, *Eriogonum ovalifolium* var. *vineum.* This combination has incorrectly often been attributed to Jepson (1914), (Reveal 1989, Hickman 1993). Jepson (1914) did publish the combination but subsequently (Jepson 1925) realized the priority of Nelson's combination, which was followed by Abrams (1944), Munz and Keck (1959), and Munz (1974).

Eriogonum ovalifolium var. *vineum* is a perennial plant of the buckwheat family (Polygonaceae) that forms low, dense mats typically 3 to 40 cm (1 to 16 in) in diameter (Hickman 1993, Munz and Keck 1959). The leaves are round to ovate, white-woolly on both surfaces, and are 0.7 to 1.5 cm (0.3 to 0.6 in) long (Munz and Keck 1959). The flowers are whitish-cream borne on flowers stalks reaching 10 to 25 cm (4 to 10 in) tall (Munz and Keck 1959). Plants flower from May through August (CNPS 2001). This species is primarily an outcrosser (pollen source for seed production is from another plant) (Neel and Ellstrand 2001).

Eriogonum ovalifolium var. *vineum* occurs in the carbonate belt of the northeastern San Bernardino Mountains extending from Rattlesnake Canyon in the east to White Mountain in the west, a distance of approximately 40 km (25 mi) (CDFG 2002). This includes occurrences in Arctic and Cushenbury Canyons, Terrace and Jacoby Springs, along Nelson Ridge, and southeast to near Onyx Peak (Barrows 1988c, Gonella and Neel 1995, Tierra Madre Consultants 1992, USFWS 1994, CDFG 2002). In the final listing rule, we identified 20 occurrences of *E. ovalifolium* var. *vineum* (USFWS 1994). The CNDDB (CDFG 2002) identifies 32 extant element occurrences. Subsequently, the SBNF has mapped 239 localized occurrences of this species for their detailed draft CHMS maps (SBNF, Unpublished GIS data, 2001).

This species inhabits open areas in singleleaf pinyon-Utah juniper, singleleaf pinyon-mountain juniper, singleleaf pinyon, pinyon, pinyon-juniper, Joshua tree woodlands, and blackbush scrub vegetation communities (Gonella 1994, Gonella and Neel 1995, USFWS 1994, Neel 2000). Plants closely associated with *Eriogonum ovalifolium* var. *vineum* include *Fremontodendron californicum, Arctostaphylos glauca* (big-berry manzanita), *A. patula* (green-leaf manzanita), *Phacelia douglasii* (Douglas' phacelia), *Yucca brevifolia, Pinus monophylla, Astragalus albens,* and *Erigeron parishii* (Gonella 1994, Gonella and Neel 1995, CDFG 2002).

Eriogonum ovalifolium var. *vineum* typically grows on soils derived from limestone or other carbonate substrates (Hickman 1993, USFWS 1994, CDFG 2002). It is generally found on gentle slopes to steep slopes mostly with north or west aspects (Neel 2000, White 2002). Other habitat characteristics include open areas with powdery fine soils and little accumulation of organic material, a canopy cover generally less than 15 percent, and rock cover exceeding 50 percent (Neel 2000). The species may also benefit from naturally unstable sites since it is often found on or adjacent to unstable talus, colluvium, or rock outcroppings (White 2002). *Eriogonum ovalifolium* var. *vineum* has the widest elevational range of all the carbonate plants, between 1,400 and 2,400 m (4,600 and 7,900 ft) (USFWS 1994, Neel 2000). The known occupied habitat for *Eriogonum ovalifolium* var. *vineum* is correlated mostly with the Bird Spring and Bonanza King soil formations (Redar and Eliason, *in litt.* 2001).

Lesquerella Kingii ssp. Bernardina (San Bernardino Mountains Bladderpod)

Lesquerella kingii ssp. *bernardina* is a member of the mustard family (Brassicaceae) and was first described by Munz (1932) as *Lesquerella bernardina* based on a collection made by Frank W. Peirson at the east end of Bear Valley in 1924. Munz (1958) subsequently reduced this to a subspecies and published the currently accepted combination *Lesquerella kingii* ssp. *bernardina.*

Lesquerella kingii ssp. *bernardina* is silvery, with dense star-shaped hairs, and is a short-lived perennial plant of the mustard family (Brassicaceae) (Munz and Keck 1959, Rollins 1993). It grows to 5 to 15 cm (2 to 6 in) tall, often purplish in color (Munz 1974, Rollins 1993). Leaves are wavy-margined to shallow toothed, the outer basal leaves are diamond shaped to round, and the inner leaves are elliptic with petioles 2 to 5 cm (0.8 to 2 in) long (Munz 1974, Rollins 1993). Flowers are borne in terminal racemes, and bloom from May to June (Munz 1974, CNPS 2001). The yellow petals are 5.5 to 13 mm (0.2 to 0.5 in) long, and styles are 3 to 4 mm (0.12 to 0.16 in) long (Munz 1974, Rollins 1993). The spherical fruits are short-haired, 2-chambered, and contain 2 to 4 seeds per chamber (Rollins 1993).

At the time of publication of the listing rule, *Lesquerella kingii* ssp. *bernardina* was known from two populations in the Big Bear area (USFWS 1994). One population is on the north side of Big Bear Lake near the east end of Bertha Ridge and adjacent to Big Bear City, and the other population is centered on the north-facing slope of Sugarlump Ridge south of Bear Valley, approximately 10 km (6.2 mi) south of the Bertha Ridge population (USFWS 1994, CDFG 2002). This species has the smallest known range of the five carbonate plants. Currently, the CNDDB (CDFG 2002) identifies four element occurrences. The SBNF has mapped 22 localized occurrences within the aforementioned populations of this species for their detailed draft CHMS maps (SBNF, Unpubished GIS data, 2001).

Lesquerella kingii ssp. *bernardina* typically is found within singleleaf pinyon-mountain juniper, white fir forest, Jeffrey pine-western juniper woodland, subalpine forest vegetation communities, and occasionally on old unpaved roads (Myers and Barrows 1988, USFWS 1994, Gonella 1994, Gonella and Neel 1995, Neel 2000, CDFG 2002). Plants closely associated with *Lesquerella kingii* ssp. *bernardina* include *Pinus contorta* ssp. *murrayana* (lodgepole pine), *Pinus flexilis* (limber pine), *Pinus jeffreyi* (Jeffrey pine), *Pinus monophylla, Juniperus occidentalis* ssp. *australis* (western juniper), and *Eriogonum ovalifolium* var. *vineum* (Gonella 1994, Neel 2000, CDFG 2002).

Lesquerella kingii ssp. *bernardina* is generally found on dry flats and slopes on soil substrates derived from dolomite parent rocks associated with the Bonanza King Formation and other Cambrian age substrates (Rollins 1993; Redar and Eliason, *in litt.* 2001; Eliason 2002). *Lesquerella kingii* ssp. *bernardina* occupies the narrowest elevational range of the five carbonate plants, between 2,098 and 2,700 m (6,883 and 8,800 ft) (CDFG 2002).

Oxytheca Parishii var. Goodmaniana (Cushenbury Oxytheca)

Barbara Ertter (1980) described the variety *Oxytheca parishii* var. *goodmaniana* based on material collected by S. P. Parish and W. F. Parish in 1882 near Cushenbury Spring. Collections of this species were previously identified as *Oxytheca parishii* var. *abramsii* or *Oxytheca watsonii* (Munz and Keck 1959, Munz 1974).

Oxytheca parishii var. *goodmaniana* is a small, wiry annual plant belonging to the buckwheat family (Polygonaceae). Specimens grow 5 to 60 cm (2 to 24 in) tall (Hickman 1993). The plants have a basal rosette of leaves, with each leaf 1 to 7 cm (0.4 to 3 in) long (Hickman 1993). The six small flowers have white to pink perianth segments (undifferentiated whorl of petals and sepals), occur in clusters of 3 to 20, and are surrounded at their base by a funnel-shaped involucre (modified leaf) (Hickman 1993).

Oxytheca parishii var. *goodmaniana* is an annual species, so the number and distribution pattern of individual standing plants fluctuates from year to year, depending on the seed bank dynamics and environmental conditions. In addition, because this species has few known occurrences, and the total number of individuals found within some occurrences is often low, this species may be more susceptible to localized extirpation from random events than the other four carbonate plant species (USFWS 1994).

Oxytheca parishii var. *goodmaniana* is scattered along the carbonate belt in the northeastern San Bernardino Mountains extending from White Mountain in the west to approximately Rattlesnake Canyon in the east. Terrace Springs is the is the eastern most area where occurrences are pure *Oxytheca parishii* var. *goodmaniana* (Eliason 2002). From Terrace Springs west to Rattlesnake Canyon *Oxytheca parishii* var. *goodmaniana* occurs with *Oxytheca parishii* var. *cienengensis* and some morphological intermediates (potential hybrids) between the two (B. Ertter, pers. comm., 2002). This area likely represents an evolutionarily important zone, and therefore, is important for the long-term adaptability of the species. The distribution of *Oxytheca parishii* var. *goodmaniana* includes occurrences near Cushenbury Spring; Cushenbury, Marble, Arctic, Wild Rose, and Furnace Canyons; Blackhawk, Mineral, and Tip Top Mountains; Terrace Springs; Rose Mine and Green Lead gold mine (USFWS 1994, CDFG 2002, CNPS 2001, Gonella and Neel 1995). This species occupies the second-smallest geographical area of the five carbonate plants. In the final listing rule, we identified seven known extant occurrences (USFWS 1994). The CNDDB (CDFG 2002) identifies 16 element occurrences. The SBNF has mapped 93 localized occurrences of this species for their detailed draft CHMS maps (SBNF, Unpublished GIS data, 2001).

Oxytheca parishii var. *goodmaniana* is typically found in singleleaf pinyon-Utah juniper, singleleaf pinyon-mountain juniper, singleleaf pinyon, and canyon live oak woodlands vegetation communities (USFWS 1994, Neel 2000). Plants closely associated with *Oxytheca parishii* var. *goodmaniana* include *Cercocarpus ledifolius* (mountain mahogany), *Arctostaphylos glauca, Chrysothamnus viscidiflorus* (yellow rabbitbrush), and *Achnatherum coronata* (needlegrass) (CDFG 2002).

Oxytheca parishii var. *goodmaniana* is typically found on soils derived from limestone, dolomite, or a mixture of limestone and dolomite substrates (Tierra Madre Consultants 1992, USFWS 1994, Neel 2000). Hickman (1993) describes it as occurring on limestone talus. Neel (2000) found that it generally occurs in areas with gentle slopes between 10 and 25 degrees with no apparent preference for aspect. *Oxytheca parishii* var. *goodmaniana* is typically found at elevations between 1,440 and 2,372 m (4,724 and 7,782 ft) (Neel 2000). Known occupied habitat for this species is mostly correlated with the Bird Springs Formation, Bonanza King Formation, Monte Cristo Limestone, and Sultan Limestone, and Crystal Pass substrate (Redar and Eliason, *in litt.* 2001).

Habitat Descriptions

The San Bernardino Mountains support a wide diversity of natural habitats that are the result of their geographic position between the desert and coastal environments, geological history, elevation, varied topography, and uncommon geological substrates such as carbonate outcrops (*e.g.*, limestone and dolomite). The SBNF, which encompasses most of the San Bernardino Mountains, covers less than one percent of the land area within the State of California, yet reportedly contains populations of more than 25 percent of all native Californian plant species (Krantz 1994). The San Bernardino Mountains are also known to support one of the highest concentrations of endemic plants in the United States (Krantz 1994). This high rate of endemism includes a number of plants that are restricted to carbonate substrates in this area (Gonella 1994, Krantz 1994).

Within the mountain range, carbonate substrates occur in several east-west bands that run along the desert-facing slopes, from approximately White Mountain in the west to Blackhawk Mountain and Terrace Springs in the east. From here, the band of carbonate substrates narrows and extends southeast to Rattlesnake Canyon and Tip Top Mountain. Disjunct (separate) outcrops occur on ridges to the north and south of the Big Bear Valley, and eastward to the Sawtooth Hills (USGS geologic substrate map 1995).

Collectively, the ranges of these five species span 56 km (35 mi) and occupy elevations between 1,178 and 2,659 m (3,864 to 8,724 ft) in the San Bernardino Mountains (Neel 2000). Plant communities in this area vary greatly by substrate type and elevation and have been described by Holland (1986), Thorne (1995), Vasek and Barbour (1995), Vasek and Thorne (1995), and Neel (2000). Neel (2000) developed more detailed, quantitative descriptions of the vegetation types that are associated with the five carbonate plants using extensive vegetation sampling and found that most of the occurrences of each of the five carbonate plants are found in the following six vegetation communities: blackbush scrub; canyon live oak; singleleaf pinyon; singleleaf pinyon-mountain juniper; singleleaf pinyon-Utah juniper; and white fir forest.

Astragalus albens, Erigeron parishii, and *Eriogonum ovalifolium* var. *vineum* are associated with blackbush scrub vegetation. Blackbush scrub vegetation primarily occurs between 1,130 and 1,665 m (3,707 to 5,463 ft) in this area and is increasingly abundant at the higher elevations. *Coleogyne ramosissima* (blackbush) is the dominant species. The sometimes quite dense shrub cover is generally under 1 m (3 ft) high. The generally open overstory canopy consists of *Yucca brevifolia, Pinus monophylla* (singleleaf pinyon), and *Juniperus osteosperma* (Utah juniper) (Neel 2000).

Astragalus albens, Erigeron parishii, Eriogonum ovalifolium var. *vineum,* and *Oxytheca parishii* var. *goodmaniana* are associated with singleleaf pinyon dominated vegetation (Neel 2000). The singleleaf pinyon plant community primarily occurs between 1,420 and 2,440 m (4,659 to 8,005 ft) in this area.

Oxytheca parishii var. *goodmaniana* is associated with canyon live oak dominated vegetation, including dominant species such as *Quercus chrysolepis* (canyon live oak) and *Pinus*

monophylla. The canyon live oak plant community primarily occurs between 1,793 and 2,440 m (5,883 and 8,005 ft) in this area. Tree cover in this vegetation type is the densest of all of the vegetation types mentioned in this document, while shrub cover is the sparsest (Neel 2000).

Eriogonum ovalifolium var. *vineum, Lesquerella kingii* ssp. *bernardina,* and *Oxytheca parishii* var. *goodmaniana* are associated with the singleleaf pinyon-mountain juniper vegetation community. This community type primarily occurs between 1,909 and 2,745 m (6,263 and 9,005 ft) in this area, and is dominated by *Pinus monophylla* and *Juniperus occidentalis* ssp. *australis. Cercocarpus ledifolius* is the only characteristic understory species of singleleaf pinyon-mountain juniper vegetation (Neel 2000).

Astragalus albens, Erigeron parishii, Eriogonum ovalifolium var. *vineum,* and *Oxytheca parishii* var. *goodmaniana* are associated with the singleleaf pinyon-Utah juniper dominated vegetation community. This community type primarily occurs between 1,212 and 2,390 m (3,976 and 7,841 ft) in this area (Neel 2000). *Ephedra viridis* (green ephedra) and *Achnatherum coronatum* (needlegrass) are characteristic understory species of singleleaf pinyon-Utah juniper dominated vegetation (Neel 2000).

Lesquerella kingii ssp. *bernardina* and *Oxytheca parishii* var. *goodmaniana* are associated with the white fir forest vegetation community. This community type primarily occurs on steep north-facing slopes between 2,196 and 2,720 m (7,205 and 8,924 ft) in this area (Neel 2000). White fir forest vegetation is dominated by *Abies concolor* (white fir) and *Pinus flexilis* (limber pine) in the overstory (Neel 2000).

The carbonate plants have also been reported to occur in five other vegetation communities: Jeffrey pine-western juniper woodland; Joshua tree woodland; pinyon woodland; pinyon-juniper woodland; and subalpine forest (Krantz 1979a, 1979b; Neel 2000; CDFG 2002). *Lesquerella kingii* ssp. *bernardina* is reported to be associated with Jeffrey pine-western juniper woodland (CDFG 2002). *Astragalus albens* and *Eriogonum ovalifolium* var. *vineum* are reported to be associated with Joshua tree woodland and pinyon woodland (CDFG 2002). *Astragalus albens, Erigeron parishii,* and *Eriogonum ovalifolium* var. *vineum* are reported to be associated with Pinyon-juniper woodland (CDFG 2002).

Some of these plant communities (*e.g.*, singleleaf pinyon woodlands, canyon live oak woodland) are also known to occur on nearby soils that are not derived from carbonate parent material. Big sagebrush, pebble plains, riparian, and meadow communities are also known to occur nearby on soils not derived from carbonate parent material; however, they do not occupy large areas and are not associated with carbonate endemic plants.

Ecology

Little is known about the life history and population dynamics of the five carbonate plants, including their pollination biology, seed dispersal agents and patterns, nature and dynamics of seed bank, seed dormancy requirements, and seedling ecology and establishment rates (Neel 2000). However, the distributions of each of these plants have been well studied through numerous independent botanical surveys, and botanical investigations and project-level surveys funded by Federal agencies and mining companies (Krantz 1979a, 1979b; Wilson and Bennett 1980; Barrows 1988a, 1988b, 1988c; Tierra Madre Consultants 1992; and herbarium specimens at Rancho Santa Ana Botanic Garden). The general ranges of these species are described in Munz and Keck (1959), Barneby (1959), Munz (1974), Hickman (1993), Nessom (1993), Rollins (1993), Spellenberg (1993), in our final rule listing the species (USFWS 1994), and the draft Recovery Plan. The five carbonate plants consistently occur on soils that are at least partially derived from carbonate substrates (Neel and Ellstrand, in press), although some occurrences of *Erigeron parishii* have been noted on soils derived from quartz monzonite and mixed layers of granite and limestone. The carbonate plants do not appear to be specifically linked to early vegetation successional stages following natural disturbance; however, they are found on some surfaces that are naturally disturbed by landslides and substrate upheaval (Neel 2000). Primarily, they occur in habitat that is undisturbed by human activities, but instances of colonization onto human-disturbed surfaces have been observed for all of the carbonate plants (Eliason 2002, White 2002). However, there is no evidence to support that soil structure or habitat structure and function associated with disturbed surfaces are equivalent to those of undisturbed surfaces (Eliason 2002). Each of these plants appear to have specific habitat and microhabitat requirements, including parent geology, vegetation community type and associated species, soil pH, slope, and elevation (Neel 2000).

Occurrences of carbonate plants likely shift over time within the range of suitable habitat. Historically, occurrences or portions of occurences likely have periodically been extirpated, while other suitable habitat may have been colonized by emigration from nearby occurrences. Given (1994) noted the need for enough suitable habitat to maintain equilibrium between naturally occurring local extirpations and colonizations. Not all habitat for a species is likely to be occupied at the same time, and failure to conserve enough suitable habitat could potentially reduce the size and viability of the metapopulation as surely as destruction of occupied habitat (Given 1994). A metapopulation has been described as ''* * * a set of populations (*i.e.*, independent demographic units; Ehrlich 1965) that are interdependent over ecological time. That is, although member populations may change in size independently, their probabilities of existing at a given time are not independent of one another because they are linked by processes of extinction and mutual recolonization, processes that occur, say, on the order of every 10 to 100 generations'' (Harrison *et al.* 1988). The persistence of such species depends on the interrelatedness of local extirpations and recolonizations, the availability of newly suitable habitat, and dispersal (Given 1994; Hanski 1997, 1999; Hanksi and Gilpin 1991). Very little is known about how the five carbonate plants may function as metapopulations (Neel and Ellstrand, in press). However, because metapopulation dynamics may be exhibited in some or all of the carbonate plant taxa, long-term persistence of the carbonate plants may require sufficient suitable habitat contiguous with areas that are currently occupied by the plants. Just how much suitable habitat would be sufficient remains unclear, however, based on anecdotal observations of *Astragalus albens,* some relatively sparse occurrences may provide ''stepping-stones'' and facilitate gene flow among high density populations (Neel and Ellstrand, in press).

Each of the five carbonate plant species is subject to several limiting ecological factors that likely increase the potential for extirpation (*e.g.*, restricted and patchy distribution, habitat specialization). These factors may, among other things, limit gene flow by reducing pollen and seed dispersal among occurrences, and reduce the probability that new colonizations will occur. The amount of habitat required to sustain the five carbonate plant species may be larger than that required for species not subject to these limiting

ecological factors (see Burgman *et al.* 2001). Recent work on genetic variation completed for *Astragalus albens* (Neel 2000), *Eriogonum ovalifolium* var. *vineum* (Neel and Ellstrand, in press), *Erigeron parishii* (Neel and Ellstrand 2001) and *Oxytheca parishii* var. *goodmaniana* (Neel 2000) provide some insight into the population structure of these carbonate plant species. Neel and Ellstrand's work is limited by its temporal scope, but suggests that there may be extensive gene flow among populations of at least three of these species, and that the populations of these three species have not been sufficiently isolated to result in genetic divergence.

Previous Federal Action

On December 15, 1980, we published a Notice of Review (NOR) of plants which included *Eriogonum ovalifolium* var. *vineum* and *Lesquerella kingii* ssp. *bernardina* as Category 1 candidate taxa and *Erigeron parishii* as a Category 2 taxon (USFWS 1980). The February 21, 1990, NOR of plants also included *Astragalus albens* as a Category 1 taxon and *Oxytheca parishii* var. *goodmaniana* as a Category 2 taxon (USFWS 1990). Category 1 taxa were those taxa for which substantial information on biological vulnerability and threats were available to support preparation of listing proposals. Category 2 candidates were taxa for which data in our possession indicated listing was possibly appropriate but for which substantial information on biological vulnerability and threats were not known or on file to support preparation of proposed rules.

On November 19, 1991, we published a proposed rule in the **Federal Register** to list the five plants as endangered (56 FR 58332). On August 24, 1994, we published a final rule listing *Erigeron parishii* as threatened and *Astragalus albens, Eriogonum ovalifolium* var. *vineum, Lesquerella kingii* ssp. *bernardina,* and *Oxytheca parishii* var. *goodmaniana* as endangered (59 FR 43652). At that time, we indicated that designation of critical habitat for these plants was not prudent because such designation would likely increase the degree of threat from vandalism, over-collection, or other human activities.

In September 1997, we published the San Bernardino Mountains Carbonate Plants Draft Recovery Plan. The draft recovery plan identified lands as important for the long-term conservation of the carbonate plants, and proposed criteria to recover the carbonate plants to the point where they can be downlisted or delisted.

On June 15, 2000, the CNPS filed a lawsuit in U.S. District Court for the Southern District of California for our failure to designate critical habitat for the five carbonate plants (*California Native Plant Society* v. *Berg, et al.*, 00CV1207–L (LSP)). On April 27, 2001, the Court vacated our August 24, 1994, ''not prudent'' determination for critical habitat and ordered us to reevaluate its prudency, and if prudent to complete a proposed rule by January 31, 2002. The Court further ordered us to publish a final critical habitat designation on or before September 30, 2002.

On January 29, 2002, we determined that designation of critical habitat was prudent, and on February 12, 2002, we published in the **Federal Register** a proposed rule to designate approximately 5,335 ha (13,180 ac) of land as critical habitat for the five carbonate plants (67 FR 6578). On September 20, 2002, we published a notice reopening the public comment period for 30 days on the proposed rule and announcing the availability of the draft economic analysis (67 FR 59239). On September 16, 2002, we requested an 8-month extension from the court (until May 30, 2003) to allow us adequate time to complete an economic analysis, obtain public comment on the economic analysis, and complete the final designation. On October 7, 2002, California Native Plant Society filed a motion opposing the extension. A hearing date of December 9, 2002, was set by the court to hear the motions of both parties.

Critical Habitat

Critical habitat is defined in section 3 of the Endangered Species Act (Act), as amended, as—(i) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. ''Conservation'' means the use of all methods and procedures that are necessary to bring an endangered species or a threatened species to the point at which listing under the Act is no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification with regard to actions carried out, funded, permitted, or authorized by a Federal agency. Section 7 of the Act also requires conferences on Federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat. Aside from the added protection that may be provided under section 7, the Act does not provide other forms of protection to lands designated as critical habitat. Further, consultation under section 7 of the Act does not apply to activities on private or other non-Federal lands that lack a Federal nexus.

In order to be included in a critical habitat designation, the habitat must first be ''essential to the conservation of the species.'' Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (*i.e.*, areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)), and are, therefore, essential to the conservation of the species. Our regulations (50 CFR 424.12(e)) also state that, ''The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.'' Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species require designation of critical habitat outside of its present range, we will not designate critical habitat in areas outside the geographic area occupied by the species.

Section 4(b)(2) of the Act requires we take into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation when the benefits of exclusion outweigh the benefits of including the areas within critical habitat, provided the exclusion will not result in extinction of the species. Section 4 of the Act also requires that we designate critical habitat, to the extent such habitat is determinable, at the time of listing. When we designate critical habitat at the time of listing or under short court-ordered deadlines, we will often not have sufficient information to identify all areas of critical habitat. We are required, nevertheless, to make a decision and thus must base our designations on what, at the time of designation, we know to be critical habitat.

Within the geographic area occupied by the species, we will designate only areas currently known to be essential.

Essential areas should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information became available, or what areas may become essential over time. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation.

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that our decisions represent the best scientific and commercial data available. This policy requires our biologists, to the extent consistent with the Act, and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should, at a minimum, be the listing package for the species. Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, unpublished materials, and expert opinion.

Section 4 of the Act requires that we designate critical habitat based on what we know at the time of designation. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, all should understand that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the section 9 prohibitions, as determined on the basis of the best available information at the time of the action. We specifically anticipate that federally funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Methods

As required by the Act and regulations (section 4(b)(2) and 50 CFR 424.12), we used the best scientific and commercial data available to determine areas that contain the physical and biological features that are essential for the conservation of the five carbonate plants. This information included data from aerial photography (1995 Digital Orthorectified Quarter Quadrangles (DOQQ) and 2000 SPOT (*Système Pour l'Observation de la Terre*) satellite imagery); U.S. Geological Services (USGS) topographic maps; the SBNF Carbonate Species Suitable Habitat Models and ranking system (Redar and Eliason, *in litt.* 2001); species occurrence and/or suitable habitat data from the SBNF, draft CHMS (Olsen 2002), and CNDDB (CDFG 2002); the final listing rule (59 FR 43652); the Proposed Designation of Critical Habitat for Five Carbonate Plants From the San Bernardino Mountains in Southern California (67 FR 6578); the San Bernardino Mountains Carbonate Plants Draft Recovery Plan (USFWS 1997); information in species background sections (USFWS, *in prep.*) being prepared for the revised draft San Bernardino Mountains Carbonate Endemic Plants Recovery Plan; research and survey observations published in peer-reviewed articles; regional GIS coverages (*e.g.*, soils, occurrence data, vegetation, land ownership, and elevation); project-specific and other miscellaneous reports and public comments submitted to us; additional information from the BLM regarding a section 7 consultation (1–8–01–F–18) on the effects of the California Desert Conservation Area Plan (CDCA) on 10 plant species (BLM 2001); a section 7 consultation with the SBNF on various ongoing and related activities affecting carbonate habitats (USFWS 2001a); discussions with representatives of the SBNF and botanical and other knowledgeable experts; and geologic map coverage of the Cushenbury Canyon area. We also visited portions of the carbonate belt in the northeastern San Bernardino Mountains, San Bernardino County, California, within the SBNF. We concentrated our analysis on those areas with known occurrences for each of these species.

The number of individuals of each carbonate plant species fluctuates over time and spatially (over an area) (Tierra Madre 1992, Krantz 1994, Neel 2000, CDFG 2002). Population estimates of each of the five carbonate plants from different time periods and surveyors also vary in precision and accuracy (S. Eliason, pers. comm., 2002). Therefore, comparing these data may yield misleading estimates of the number of individuals in a given area (Neel 2000). Additionally, the mapped occurrences of the carbonate plants have varied from year to year and surveyor to surveyor (Tierra Madre 1992, Krantz 1994, Neel 2000, CDFG 2002). Therefore, estimates of the number of individuals are not given in this document.

Names associated with the various groupings of carbonate plants also differ (*e.g.*, population, aggregate occurrence (grouped occurrences), element occurrence (as used by the CDFG), and point location (which describes a detailed mapping area used by the SBNF)) (USFWS 1994, Neel 2000, CDFG 2002). For the purposes of describing areas essential to the conservation of the carbonate plants, and to standardize the variation in mapping scale presented by CNPS and the SBNF, we reclassified the occurrence data identified by the CNDDB (CDFG 2002) and the SBNF into new groupings. These groupings were established based on likely hydrogeomorphic (*e.g.*, same drainage and soil derivation) and/or topographic relationships, which allowed us to analyze the localized occurrences with respect to general assumptions about the potential biological and ecological dynamics of these groupings, such as seed banks, connectivity and gene flow, and pollinator and seed dispersal vectors. The groupings also allowed for ease in the description, mapping, and definitions of legal boundaries. Consequently, hereafter, we refer to each of these new groupings as an ''aggregate occurrence,'' while distinct subunits of the aggregate occurrences are referred to as ''localized occurrences'' or simply ''occurences.'' Furthermore, the term ''core occurrences'' is used below to describe a relatively large number of individual plants in a given geographic area.

After analyzing all of the localized occurrence data from the CNDDB (CDFG 2002), the final listing rule, SBNF, and additional scientific and commercial sources, we grouped *Astragalus albens* into 20 aggregate occurrences, *Erigeron parishii* into 27 aggregate occurrences, *Eriogonum ovalifolium* var. *vineum* into 28 aggregate occurrences, *Lesquerella kingii* ssp. *bernardina* into 2 aggregate occurrences, and *Oxytheca parishii* var.

goodmaniana into 19 aggregate occurrences.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to propose as critical habitat, we must consider those physical and biological features (primary constituent elements) that are essential to the conservation of the species, and that may require special management considerations or protection. These include, but are not limited to: space for individual and population growth; food, water, air, light, minerals, or other nutritional or physiological requirements; cover; sites for pollination, reproduction, germination, or seed dispersal and dormancy; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species. All areas proposed as critical habitat for *Astragalus albens, Erigeron parishii, Eriogonum ovalifolium* var. *vineum, Lesquerella kingii* ssp. *bernardina,* and *Oxytheca parishii* var. *goodmaniana* are within their respective historical ranges and contain one or more of the physical or biological features (primary constituent elements) essential for the conservation of each species.

Habitat components that are essential for each of the five carbonate plants are primarily found in, but not limited to, pinyon woodland, pinyon-juniper woodland and forests, Joshua tree woodland, white fir forests, subalpine forest, canyon live oak woodlands and forests, and blackbush scrub vegetation communities in the San Bernardino Mountains. These habitat components likely provide for: (1) Individual and population growth, including sites for germination, pollination, reproduction, pollen and seed dispersal, and seed dormancy; (2) areas that allow for and maintain gene flow between localized occurrences through pollinator activity and seed dispersal mechanisms; (3) areas that provide basic requirements for growth such as water, light, minerals; and (4) lands that support pollinators and seed dispersal vectors.

The following has been identified as important to the conservation of the five carbonate plants or narrow endemic plants in general: the conservation and management of existing populations (USFWS 1997); the conservation and management of suitable habitat that is not known to be currently occupied to maintain natural equilibrium between local extirpations and colonizations (Harrison *et al.* 2000); the protection and maintenance of upslope or upstream geologic features that provide the necessary materials to replace the soils continually lost to natural processes (USFWS 2002b); conservation and adequate connectivity of undisturbed areas between localized occurrences to allow and maintain gene flow among aggregate occurrences through pollen and seed dispersal vectors (Neel and Ellstrand, in press; Neel 2002; Neel 2000; USFWS 2001b); the conservation and maintenance of sites that may allow for pollen and seed dispersal (USFWS 2001b); the conservation of suitable micro-habitat that could be colonized to allow localized occurrences to expand and contract, or maintain normal population dynamics (Neel and Ellstrand, in press; Neel 2002; Neel 2000; Harrison *et al.* 2000); and the maintenance of normal ecological functions within all localized occurrences. The small fragmented range of the five carbonate plants and limiting ecological factors that reduce the chances of their survival make these species particularly vulnerable to natural and human disturbance (*e.g.*, non-native species, wildfire, livestock grazing, forest product harvesting, and mining) (Burgman *et al.* 2001; USFWS 2001b).

We considered the biological and ecological factors identified above while developing primary constituent elements for the proposed rule and this final rule. As stated earlier in the rule, there is limited available ecological information about the five carbonate plants. However, we were able to utilize in our determination of primary constituent elements specific information regarding soil types, vegetation associations, geographic distribution, geomorphic relationships and other habitat conditions in which these plants are commonly found. The resulting primary constituent elements are expected to capture significant aspects of the above ecological factors.

Based on our current knowledge of these species, the primary constituent elements of critical habitat for each species is listed below and consist of, but are not limited to:

Astragalus Albens

(1) Soils derived primarily from the upper and middle members of the Bird Spring Formation and Undivided Cambrian parent materials that occur on dry flats and slopes or along rocky washes with limestone outwash/deposits at elevations between 1,171 and 2,013 m (3,864 and 6,604 ft);

(2) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(3) Associated plant communities that have areas with an open canopy cover and little accumulation of organic material (*e.g.*, leaf litter) on the surface of the soil.

Erigeron Parishii

(1) Soils derived primarily from upstream or upslope limestone, dolomite, or quartz monzonite parent materials that occur on dry, rocky hillsides, shallow drainages, or outwash plains at elevations between 1,171 and 1,950 m (3,842 and 6,400 ft);

(2) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(3) Associated plant communities that have areas with an open canopy cover.

Eriogonum Ovalifolium var. Vineum

(1) Soils derived primarily from the upper and middle members of the Bird Spring Formation and Bonanza King Formation parent materials that occur on hillsides at elevations between 1,400 and 2,400 m (4,600 and 7,900 ft);

(2) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(3) Associated plant communities that have areas with an open canopy cover (generally less than 15 percent cover) and little accumulation of organic material (*e.g.*, leaf litter) on the surface of the soil.

Lesquerella Kingii ssp. Bernardina

(1) Soils derived primarily from Bonanza King Formation and Undivided Cambrian parent materials that occur on hillsides or on large rock outcrops at elevations between 2,098 and 2,700 m (6,883 and 8,800 ft);

(2) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(3) Associated plant communities that have areas with an open canopy cover and little accumulation of organic material (*e.g.*, leaf litter) on the surface of the soil.

Oxytheca Parishii var. Goodmaniana

(1) Soils derived primarily from upslope limestone, a mixture of limestone and dolomite, or limestone talus substrates with parent materials

that include Bird Spring Formation, Bonanza King Formation, middle and lower members of the Monte Cristo Limestone, and the Crystal Pass member of the Sultan Limestone Formation at elevations between 1,440 and 2,372 m (4,724 and 7,782 ft);

(2) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(3) Associated plant communities that have areas with a moderately open canopy cover (generally between 25 and 53 percent (Neel 2000)).

Criteria Used To Identify Critical Habitat

The downlisting and delisting sections of the revised draft San Bernardino Mountains Carbonate Endemic Plants Recovery Plan (USFWS, in prep.) for the five carbonate plants, in concert with the draft CHMS (Olsen 2002), identify the specific recovery needs of these species and facilitated the identification of areas essential to their conservation. The published and revised draft recovery plans identify lands as important for the long-term conservation of the carbonate plants that: (1) Contain known occurrences that must be conserved to recover the species; (2) include habitats that were part of a historical population distribution adjacent to occupied areas and are needed for the expansion and stability of additional occurrences; and (3) provide landscape connectivity between occurrences that are required to maintain genetic exchange and the natural processes of extirpations and colonizations. To recover the carbonate plants to the point where they can be downlisted or delisted, it is essential to preserve the species' genetic diversity, as well as their habitat.

During the development of the programmatic consultation for the four southern California National Forests (USFWS 2001c) and the draft CHMS (Olsen 2002), the SBNF delineated the distribution of each of the five carbonate species and developed a model of potential suitable habitat based on geology, soil substrates, elevation range, and plant communities. The SBNF ranked the relative importance of the known localized occurrences of carbonate plants by evaluating the size, density, location, configuration, associated species, defensibility (*i.e.*, against threats) of each occurrence, and a general assessment of habitat conditions. Priority was also given to localized occurrences that represented the limits of ecological and geographical variability of the species (*e.g.*, highest and lowest in elevation, westernmost and easternmost in distribution).

We used the distribution and occurrence data from outside sources, our aggregate occurrence groupings, and the SBNF occurrence ranking information and modeled suitable habitat maps to determine habitat areas essential to the conservation of the five carbonate plants. We used 1996 and 2000 aerial photography to identify areas for removal from critical habitat designation that have (1) urban development; (2) active mining; and (3) other ongoing disturbances. The 1996 imagery provided 1-m resolution, while the 2000 imagery provided more recent information, but at a lower resolution. We also reviewed previous consultations completed under section 7 of the Act for the carbonate plants to remove any additional lands that were previously determined to be non-essential. The delineated localized occurrence boundaries were refined to include: (1) Potential adjacent seed banks; (2) habitat to maintain natural equilibrium between local extirpation and colonization events; (3) connectivity of suitable habitat to maintain potential gene flow among sites through pollen and seed dispersal; and (4) upslope or upstream geologic substrates that provide the necessary materials to replace the soils which are continually lost to natural processes. To map these essential lands, we overlaid them with a 100-m Universal Transverse Mercator (UTM) grid. Because the grid captured lands deemed non-essential, we then evaluated all grid cells adjacent to disturbed areas and eliminated grid cells where either the entire cell or the majority of the cell was within a disturbed area. Cells that had documented localized occurrences of the carbonate plants were retained even if the majority of the cell was disturbed.

In defining critical habitat boundaries, we made an effort to exclude all developed areas, such as towns, buildings, active mines, and lands unlikely to contain the primary constituent elements essential for the conservation of each of the five carbonate plants. Our 100-m UTM grid minimum mapping unit was designed to minimize the amount of non-essential lands included in our designation. However, as an artifact of the mapping process, critical habitat may include some disturbed areas and undisturbed areas that do not contain primary constituent elements. Though mapped as such, existing features and structures, such as buildings, mines that are active at the time of this publication, paved or unpaved roads, other paved or cleared areas, lawns, and other urban landscaped areas are unlikely to contain one or more of the primary constituent elements. Federal actions limited to those areas, therefore, would not trigger a section 7 consultation, unless they may affect the species or the primary constituent elements in adjacent critical habitat.

The critical habitat units described below constitute our best assessment of areas that are essential for the species' conservation. New information obtained in the time between the proposed rule and this final rule, including additional information received during the two public comment periods, did not result in a refinement of our critical habitat boundaries for this final rulemaking.

Critical Habitat Designation

The acreage of designated critical habitat land ownership is shown in Table 1.

TABLE 1.—DESIGNATED CRITICAL HABITAT IN HECTARES (HA) (ACRES (AC)) BY SPECIES AND LAND OWNERSHIP, SAN BERNARDINO COUNTY, CALIFORNIA

[Area estimates reflect critical habitat unit boundaries, not primary constituent elements within [1]]

Species	Federal [2]	Private	Total
Astragalus albens	1,565 ha (3,870 ac)	200 ha (495 ac)	1,765 ha (4,365 ac).
Erigeron parishii	1,330 ha (3,280 ac)	460 ha (1,140 ac)	1,790 ha (4,420 ac).
Eriogonum ovalifolium var. *vineum*	2,440 ha (6,025 ac)	375 ha (930 ac)	2,815 ha (6,955 ac).
Lesquerella kingii ssp. *bernardina*	405 ha (1,005 ac)	10 ha (20 ac)	415 ha (1,025 ac).
Oxytheca parishii var. *goodmaniana*	1,085 ha (2,675 ac)	190 ha (475 ac)	1,275 ha (3,150 ac).

TABLE 1.—DESIGNATED CRITICAL HABITAT IN HECTARES (HA) (ACRES (AC)) BY SPECIES AND LAND OWNERSHIP, SAN BERNARDINO COUNTY, CALIFORNIA—Continued

[Area estimates reflect critical habitat unit boundaries, not primary constituent elements within [1]]

Species	Federal [2]	Private	Total
Total [3]	4,565 ha (11,280 ac)	770 ha (1,900 ac)	5,335 ha (13,180 ac).

[1] Hectares have been converted to acres (1 ha = 2.47 ac). Based on the level of imprecision of mapping at this scale, hectares and acres have been rounded to the nearest 5.
[2] Federal lands include SBNF and BLM lands.
[3] Because of overlapping boundaries, the sum of designated critical habitat for each carbonate plant species does not equal the total area that has been designated as critical habitat for each species.

The designated critical habitat areas described below constitute our best assessment of the areas essential for the conservation of each of the five carbonate plants. Each polygon (*e.g.*, closed mapped area) representing critical habitat for each species is considered to be occupied by standing plants and seeds as part of the seed bank and contains one or more of their primary constituent elements. We are designating approximately 5,335 ha (13,180 ac) of land as critical habitat for the five carbonate plants.

The lands designated as critical habitat have been divided into three critical habitat units: the Northeastern Slope Unit (Unit 1), Bertha Ridge Unit (Unit 2), and Sugarlump Ridge Unit (Unit 3). The Northeastern Slope Unit contains *Astragalus albens, Erigeron parishii, Eriogonum ovalifolium* var. *vineum,* and *Oxytheca parishii* var. *goodmaniana.* The Bertha Ridge Unit contains *Eriogonum ovalifolium* var. *vineum* and *Lesquerella kingii* ssp. *bernardina.* The Sugarlump Ridge Unit contains *Lesquerella kingii* ssp. *bernardina.* Lands designated as critical habitat are under Federal and private ownership. Federal lands include areas owned or managed by the SBNF and BLM.

We are designating all or part of the following aggregate occurrences: 15 of 20 for *Astragalus albens,* 20 of 27 for *Erigeron parishii,* 22 of 28 for *Eriogonum ovalifolium* var. *vineum,* 18 of 19 for *Oxytheca parishii* var. *goodmaniana,* 2 of 2 for *Lesquerella kingii* ssp. *bernardina.* Based on public comment, we reviewed our aggregate grouping classification. As a result, the number of aggregate occurrences that we are designating may differ from those in the proposed rule, however, the extent of areas included in our designation has not changed. We are not including all or part of some aggregate occurrences because the habitat in those areas is considered to be too degraded, or so small and isolated as to not have long-term viability, and therefore, not essential to the conservation of the species.

A brief description of each unit and reasons for designating it as critical habitat are presented below.

Unit 1: Northeastern Slope Unit, San Bernardino County, California (4,850 ha (11,980 ac))

The Northeastern Slope Unit includes 115 separate polygons (subunits) around important occurrences of the carbonate plants. The unit extends from White Mountain at the western edge to Rattlesnake Canyon at the eastern edge, a distance of approximately 40 km (25 mi). The lands within this unit contain the majority of the carbonate substrates in the carbonate belt that spans the north to northeastern slope of the San Bernardino Mountains. This unit includes occurrences of four of the five carbonate plants: *Astragalus albens, Erigeron parishii, Eriogonum ovalifolium* var. *vineum,* and *Oxytheca parishii* var. *goodmaniana.* This unit contains the majority of the known range of occurrences for each of these four carbonate plants, including all or part of the following aggregate occurrences: 17 of 20 for *Astragalus albens*; 22 of 27 for *Erigeron parishii*; 22 of 28 for *Eriogonum ovalifolium* var. *vineum*; 18 of 19 for *Oxytheca parishii* var. *goodmaniana.*

This unit contains localized occurrences of the carbonate plants that the SBNF ranked as important for their survival and conservation (S. Eliason, *in litt.* 2001). The SBNF's ranking was instrumental in our determining which aggregate occurrences of each carbonate plant were essential within this critical habitat unit. Additionally, the revised draft San Bernardino Mountains Carbonate Endemic Plants Recovery Plan (USFWS, *in prep.*) specifically mentions that the permanent protection of (1) a large number of core (a relatively large number of individual plants in a given geographic area) occurrences, and (2) the majority of the remaining additional occurrences of each of these four carbonate plants are necessary for their downlisting and/or delisting.

This unit contains proposed management areas on public and private lands that, among other functions, would provide conservation benefits to the four carbonate plant species in this unit. These proposed management areas, at least in part, are intended to satisfy the CHMS conservation goals for the carbonate plants. These lands would include a proposed SBNF Special Management Area (SMA), a proposed BLM Area of Critical Environmental Concern (ACEC), and additional proposed reserve lands currently held by private mining interests. It is anticipated that these special land designations would occur sometime after the implementation of the CHMS through the provisions of a consultation between the SBNF and the Service. These lands, however, currently do not have approved management provisions for the carbonate plants and their habitat, and habitat degradation may still be occurring due to ongoing activities identified in the final listing rule for these species (see USFWS 2001b). Therefore, the subject lands continue to require special management and protection to ensure the conservation of the carbonate plants and their habitat.

The persistence of the carbonate plant populations likely depends on the combined dynamics of local extirpations and new colonizations by dispersal (Given 1994, Hanski 1999, Hanksi and Gilpin 1991). Every carbonate plant occurrence in this unit is important to maintain the natural population dynamics of local extirpation and colonization events that are necessary for the conservation of the species. Every carbonate plant occurrence in this unit is important as a seed source to colonize unoccupied sites and therefore maintain an equilibrium between colonization and extirpation events. Every carbonate plant occurrence in this unit potentially provides important genetic material through cross pollination and seed dispersal which may help maintain genetic diversity and thus reduce the likelihood of extirpation.

Lands within this unit are essential to the conservation of these four carbonate

plants because they provide (1) suitable carbonate substrates and carbonate-derived soils with intact, natural surfaces associated with each of these species; (2) associated plant communities for each of these species; and (3) habitat conditions that support the majority of known plant occurrences of these species, including a number of important core occurrences.

The acreage of critical habitat for Unit 1 by land ownership is shown in Table 2.

TABLE 2.—CRITICAL HABITAT FOR UNIT 1 IN HECTARES (HA) (ACRES (AC)) BY SPECIES AND LAND OWNERSHIP, SAN BERNARDINO COUNTY, CALIFORNIA

[Area estimates reflect critical habitat unit boundaries, not primary constituent elements within [1]]

Species	BLM	USFS	Federal total	Private	Total
Astragalus albens	345 ha (850 ac)	1,220 ha (3,020 ac)	1,565 ha (3,870 ac)	200 ha (495 ac)	1,765 ha (4,365 ac).
Erigeron parishii	390 ha (960 ac)	940 ha (2,320 ac)	1,330 ha (3,280 ac)	460 ha (1,140 ac)	1,790 ha (4,420 ac).
Eriogonum ovalifolium var. *vineum*.	175 ha (430 ac)	2,120 ha (5,230 ac)	2,290 ha (5,660 ac)	375 ha (930 ac)	2,665 ha (6,590 ac).
Oxytheca parishii var. *goodmaniana*.	35 ha (85 ac)	1,050 ha (2,590 ac)	1,085 ha (2,675 ac)	190 ha (475 ac)	1,275 ha (3,150 ac).
Total [2]	640 ha (1,585 ac)	3,450 ha (8,515 ac)	4,090 ha (10,100 ac)	760 ha (1,880 ac)	4,850 ha (11,980 ac)

[1] Hectares have been converted to acres (1 ha = 2.47 ac). Based on the level of imprecision of mapping at this scale, hectares and acres have been rounded to the nearest 5.

[2] Because of overlapping boundaries, the sum of designated critical habitat for each carbonate plant species does not equal the total area that has been designated as critical habitat for each species.

Unit 2: Bertha Ridge Unit, San Bernardino County, California (275 ha (685 ac))

The Bertha Ridge Unit includes four separate polygons encompassing important occurrences of the carbonate plants. This unit is located on the north side of Big Bear Lake adjacent to Big Bear City, California. It is near the east end of Bertha Ridge on its south facing slope. The majority of lands within this unit contain soils derived from carbonate substrates (particularly dolomite) that are essential to the survival and conservation of both carbonate plant species. This unit contains important core occurrences of two of the five carbonate plants: *Eriogonum ovalifolium* var. *vineum* and *Lesquerella kingii* ssp. *bernardina.*

This unit contains one of the two *Lesquerella kingii* ssp. *bernardina* aggregate occurrences. It is a core occurrence that may be large enough to maintain the natural dynamics of local extirpation and colonization events. This unit also contains a disjunct *Eriogonum ovalifolium* var. *vineum* aggregate occurrence, and the only *Eriogonum ovalifolium* var. *vineum* aggregate occurrence found on soils primarily derived from dolomite parent material. This aggregate occurrence may contain plants that harbor genetic characteristics essential to overall long-term conservation of the species.

Each of the localized occurrences contained in this unit has been identified by the SBNF as being important core occurrences for the survival and conservation for each carbonate plant species. Additionally, the revised draft San Bernardino Mountains Carbonate Endemic Plants Recovery Plan (USFWS, *in prep.*) specifically mentions that the permanent protection of each of the localized occurrences in this unit of these two carbonate plants are necessary for their downlisting and/or delisting.

The SBNF is planning a revision of their Resource Management Plan in the near future that, among other functions, would provide conservation benefits to the two carbonate plant species and their habitat in this unit. These lands, however, currently do not have approved management provisions for the carbonate plants and their habitat, and habitat degradation may still be occurring due to ongoing activities identified in the final listing rule for these species (see USFWS 2001b). Therefore, the subject lands continue to require special management and protection to ensure the conservation of these species and their habitat.

The core occurrences of the two carbonate plants in this unit are important as potential sources for the colonization events (*e.g.*, seed dispersal) necessary to maintain the natural population dynamics of the species. Every carbonate plant occurrence in this unit is important as a seed source to colonize unoccupied sites and therefore maintain an equilibrium between local colonization and extirpation events. Every carbonate plant occurrence in this unit potentially provides important genetic material through pollen and seed dispersal which may help maintain genetic diversity and reduce the likelihood of regional extirpation events.

Lands within this unit are essential to the conservation of both of these carbonate species because they provide (1) suitable carbonate substrates and carbonate derived soils with intact, natural surfaces associated with each of these species; (2) associated plant communities for each of these species; and (3) habitat conditions that support the majority of known plant occurrences of these species, including a number of important core occurrences.

The acreage of critical habitat for Unit 2 by land ownership is shown in Table 3.

TABLE 3.—CRITICAL HABITAT FOR UNIT 2 IN HECTARES (HA) (ACRES (AC)) BY SPECIES AND LAND OWNERSHIP, SAN BERNARDINO COUNTY, CALIFORNIA

[Area estimates reflect critical habitat unit boundaries, not primary constituent elements within[1]]

Species	BLM	USFS	Federal total	Private	Total
Eriogonum ovalifolium var. *vineum*.	0 ha (0 ac)	150 ha (365 ac)	150 ha (365 ac)	0 ha (0 ac)	150 ha (365 ac).

TABLE 3.—CRITICAL HABITAT FOR UNIT 2 IN HECTARES (HA) (ACRES (AC)) BY SPECIES AND LAND OWNERSHIP, SAN BERNARDINO COUNTY, CALIFORNIA—Continued

[Area estimates reflect critical habitat unit boundaries, not primary constituent elements within[1]]

Species	BLM	USFS	Federal total	Private	Total
Lesquerella kingii ssp. *bernardina*.	0 ha (0 ac)	195 ha (490 ac)	195 ha (490 ac)	10 ha (20 ac)	205 ha (510 ac).
Total[2]	0 ha (0 ac)	265 ha (665 ac)	265 ha (665 ac)	10 ha (20 ac)	275 ha (685 ac).

[1] Hectares have been converted to acres (1 ha = 2.47 ac). Based on the level of imprecision of mapping at this scale, hectares and acres have been rounded to the nearest 5.

[2] Because of overlapping boundaries, the sum of designated critical habitat for each carbonate plant species does not equal the total area that has been designated as critical habitat for each species.

Unit 3: Sugarlump Ridge Unit, San Bernardino County, California (210 ha (515 ac))

The Sugarlump Ridge Unit includes two separate polygons encompassing an important core occurrence of the *Lesquerella kingii* ssp. *bernardina*. This unit is centered on the north-facing slope of Sugarlump Ridge south of Bear Valley, approximately 10 km (6.2 mi) south of the Bertha Ridge unit. The soils in this unit are primarily derived from dolomite instead of limestone. *Lesquerella kingii* ssp. *bernardina* is the only carbonate plant in this unit.

This unit contains one of the two known *Lesquerella kingii* ssp. *bernardina* aggregate occurrences, and has been identified by the SBNF as being a very important core occurrence for the survival and conservation of *Lesquerella kingii* ssp. *bernardina*. Additionally, the revised draft San Bernardino Mountains Carbonate Endemic Plants Recovery Plan (USFWS, *in prep.*) specifically mentions that the permanent protection of this occurrence is necessary for its downlisting or delisting.

The SBNF is planning a revision of their Resource Management Plan in the near future that, among other functions, would provide conservation benefits to *Lesquerella kingii* ssp. *bernardina* and its habitat in this unit. These lands, however, currently do not have approved management provisions for the carbonate plants and their habitat, and habitat degradation may still be occurring due to ongoing activities identified in the final listing rule for these species (*see* USFWS 2001b). Therefore, the subject lands continue to require special management and protection to ensure the conservation of *Lesquerella kingii* ssp. *bernardina* and its habitat.

The core *Lesquerella kingii* ssp. *bernardina* occurrence in this unit is important as a source for potential colonization events (*e.g.*, seed dispersal) that may be necessary to maintain the natural population dynamics of local extirpation and colonization. Every occurrence of this carbonate plant in this unit is important as a potential seed source to colonize unoccupied sites. Every occurrence of this species in this unit may provide important genetic material through pollen and seed dispersal which may maintain long-term viability and genetic diversity, and thereby potentially reduce the likelihood of extirpation.

Lands within this unit are essential to the conservation of *Lesquerella kingii* ssp. *bernardina* because they provide (1) suitable carbonate substrates and carbonate derived soils with intact, natural surfaces associated with this species; (2) associated plant communities for this species; and (3) habitat conditions that support the majority of known plant occurrences of this species, including an important core occurrence.

The acreage of critical habitat for Unit 3 by land ownership is shown in Table 4.

TABLE 4.—CRITICAL HABITAT FOR UNIT 3 IN HECTARES (HA) (ACRES (AC)) BY SPECIES AND LAND OWNERSHIP, SAN BERNARDINO COUNTY, CALIFORNIA

[Area estimates reflect critical habitat unit boundaries, not primary constituent elements within[1]]

Species	BLM	USFS	Federal total	Private	Total
Lesquerella kingii ssp. *bernardina*.	0 ha (0 ac)	210 ha (515 ac)	210 ha (515 ac)	0 ha (0 ac)	210 ha (515 ac).

[1] Hectares have been converted to acres (1 ha = 2.47 ac). Based on the level of imprecision of mapping at this scale, hectares and acres have been rounded to the nearest 5.

Effects of Critical Habitat Designation

Section 7 Consultation

The regulatory effects of a critical habitat designation under the Act are triggered through the provisions of section 7, which applies only to activities conducted, authorized, or funded by a Federal agency (Federal actions). Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR 402. Individuals, organizations, States, local governments, and other non-Federal entities are not affected by the designation of critical habitat unless their actions occur on Federal lands, require Federal authorization, or involve Federal funding.

Section 7(a)(2) of the Act requires Federal agencies, including us, to insure that their actions are not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. This requirement is met through section 7 consultation under the Act. Our regulations define ''jeopardize the continued existence'' as to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR 402.02). ''Destruction or adverse modification of designated critical

habitat'' is defined as a direct or indirect alteration that appreciably diminishes the value of the critical habitat for both the survival and recovery of the species (50 CFR 402.02). Such alterations include, but are not limited to, adverse changes to the physical or biological features (*i.e.*, the primary constituent elements) that were the basis for determining the habitat to be critical.

Section 7(a)(4) requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory.

We may issue a formal conference report, if requested by the Federal action agency. Formal conference reports include an opinion that is prepared according to 50 CFR 402.14, as if the species was listed or critical habitat designated. We may adopt the formal conference report as the biological opinion when the species is listed or critical habitat designated, if no substantial new information or changes in the action alter the content of the opinion (*see* 50 CFR 402.10(d)).

If a species is listed or critical habitat is designated, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Through this consultation, we would ensure that the permitted actions do not destroy or adversely modify critical habitat.

If we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we would also provide reasonable and prudent alternatives to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Service's Regional Director believes would avoid the destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where critical habitat is subsequently designated, and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat.

Activities on Federal lands that may affect the five carbonate plants or their critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from a Federal agency, such as a permit from the U.S. Army Corps of Engineers (ACOE) under section 404 of the Clean Water Act, a permit under section 10(a)(1)(B) of the Act from the Service, or some other Federal action, including funding (*e.g.*, from the Federal Highway Administration (FHWA), Federal Aviation Administration (FAA), or Federal Emergency Management Agency (FEMA)); permits from the Department of Housing and Urban Development (HUD); activities by Immigration and Naturalization Service (INS) on their land or land under their jurisdiction; activities funded by the U.S. Environmental Protection Agency (EPA), Department of Energy (DOE), or any other Federal agency; regulation of airport improvement activities by FAA; and construction of communication sites licensed by the Federal Communications Commission (FCC) will also continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may adversely modify such habitat, or that may be affected by such designation. Activities that may result in the destruction or adverse modification of critical habitat include those that alter the primary constituent elements to an extent that the value of critical habitat for the conservation of the five carbonate plants is appreciably reduced. We note that such activities may also jeopardize the continued existence of the species. Activities that, when carried out, funded or authorized by a Federal agency, may directly or indirectly destroy or adversely modify critical habitat include, but are not limited to:

(1) Removing, thinning, or destroying the five carbonate plants habitat (as defined in the primary constituent elements discussion), whether by burning, mechanical, chemical, or other means (*e.g.*, plowing, grubbing, grading, grazing, woodcutting, construction, road building, mining, herbicide application, etc.);

(2) Activities that appreciably degrade or destroy the five carbonate plants' habitat (and their primary constituent elements), including, but not limited to, livestock grazing, clearing, discing, farming, residential or commercial development, introducing or encouraging the spread of nonnative species, off-road vehicle use, and heavy recreational use; and

(3) Appreciably decreasing habitat value or quality through indirect effects (*e.g.*, edge effects, invasion of exotic plants or animals, or fragmentation).

If you have questions regarding whether specific activities will constitute adverse modification of critical habitat, contact the Field Supervisor, Carlsbad Fish and Wildlife Office (*see* **ADDRESSES** section). Requests for copies of the regulations on listed wildlife and plants, and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Branch of Endangered Species, 911 NE. 11th Ave., Portland, OR 97232 (telephone 503/231–6131; facsimile 503/231–6243).

Relationship to Habitat Conservation Plans and Other Planning Efforts

Only one habitat conservation plan (HCP), *Habitat conservation plan for the federally threatened desert tortoise, Cushenbury sand and gravel quarry, San Bernardino, California* (Lilburn Corporation 1994), has been completed within the area where these five carbonate plants occur. This HCP addresses the federally listed as threatened desert tortoise (*Gopherus agassizii*). While *Erigeron parishii* occurs within the area addressed by this HCP, neither this species nor any other carbonate plant addressed in this proposal is covered under this HCP. In the event that future HCPs are developed within the boundaries of designated critical habitat in which one or more of the carbonate plants is included as a covered species, we will work with applicants to ensure that the HCPs provide for protection and

management of habitat areas essential for their conservation by either directing development and habitat modification to non-essential areas or appropriately modifying activities within essential habitat areas so that such activities will not destroy or adversely modify critical habitat.

The HCP development process provides an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by the five carbonate plants. The process also enables us to conduct detailed evaluations of the importance of such lands to the long-term survival of the species in the context of constructing a biologically configured system of interlinked habitat preserves. We fully expect that any HCPs undertaken by local jurisdictions (*e.g.*, counties, cities) and other parties will identify, protect, and provide appropriate management for those specific lands within the boundaries of the plans that are essential for the long-term conservation of the species. We believe and fully expect that our analyses of these proposed HCPs and proposed permits under section 7 will show that covered activities carried out in accordance with the provisions of the HCPs and biological opinions will not result in destruction or adverse modification of critical habitat.

Summary of Comments and Recommendations

In the February 12, 2002, proposed critical habitat designation (67 FR 6578), we requested all interested parties to submit comments on the specifics of the proposal including information related to biological justification, policy, economics, and proposed critical habitat boundaries. The initial 60-day comment period closed on April 15, 2002. The comment period was reopened from September 20, 2002, to October 21, 2002 (67 FR 59239), to allow for additional comments on the proposed designation, and comments on the draft economic analysis of the proposed critical habitat.

We contacted all appropriate State and Federal agencies, county governments, elected officials, and other interested parties and invited them to comment. In addition, on February 18, 2002, we invited public comment through the publication of a legal notice in the San Bernardino Sun newspaper in southern California. We also provided notification of the draft economic analysis to all interested parties. This was accomplished through telephone calls, letters, and news releases faxed or mailed to affected elected officials, media outlets, local jurisdictions, and interest groups. We posted the proposed rule and draft economic analysis and associated material on our Carlsbad Fish and Wildlife Office Internet site following the reopening of the public comment period on September 20, 2002.

We received a total of 120 comment letters from 193 separate parties (4 letters contained multiple signatures) during the two public comment periods. Comments were received from Federal and local agencies, and private organizations or individuals. No response was received from State agencies. Of these 120 comment letters, 10 were in favor of the designation, and 110 against it. We reviewed all comments received for substantive issues and comments, and new information regarding the five carbonate plants.

Peer Review

We requested six biologists, who have knowledge of the five carbonate plants, to provide peer review of the proposed designation of critical habitat for the five carbonate plants. Five independent peer reviewers submitted comments on our proposed critical habitat designation. Each reviewer generally endorsed the proposal. Four of the reviewers expressed some reservations as to the adequacy of the proposed designation. More specifically, they advocated the inclusion of additional lands to address the following issues: connectivity, outlying occurrences, edge effects, and the importance of protecting genetic diversity for the survival of the five carbonate plants. The fifth reviewer supported the designation as proposed.

Similar comments were grouped into three general issues relating specifically to the proposed critical habitat determination and draft economic analysis on the proposed determination. Comments were either incorporated directly into the final rule or final addendum to the economic analysis or addressed in the following summary.

Issue 1: Biological Justification and Methodology

Comment 1: Several commenters, including four peer reviewers, recommended revising the critical habitat boundaries to increase connectivity, and reduce the edge-to-area ratio to improve the biological or ecological defensibility of critical habitat. A few commenters suggested that the proposed rule ignores the principles of species composition and reserve design, citing that habitat in contiguous blocks is better than fragmented habitat. Another commenter, citing recent studies relating to fragmentation effects, suggested we failed to use the best available scientific information to propose adequate unoccupied critical habitat.

Our Response: In our proposed critical habitat designation for the five carbonate plants, we identified those areas that currently contain or provide populations and habitat components essential to the conservation of the five carbonate plants. We did not include some habitat areas where the five carbonate plants had not been observed recently because we did not believe that these areas were essential to the conservation of the species. We included those areas we believe to be essential, including core populations and habitat that provides the principal biological and physical components necessary for the conservation of the species.

One of the commenters cited recent studies that concluded that fragmentation effects are diminished if fragments are joined together by a corridor connecting two or more fragments. We believe that the configuration of areas in the designation may substantively reduce fragmentation effects. Although all of the designated occurrences of each of the five carbonate plants are not ''connected'' by the boundaries of the designation, many localized occurrences and some aggregate occurrences were designated within the same critical habitat area or polygon, thereby decreasing the likelihood of fragmentation effects and improving management defensibility and opportunities for genetic exchange. Please refer to the Criteria Used to Identify Critical Habitat section of this rulemaking for additional discussion regarding criteria used in the development of the critical habitat for the carbonate plants this.

During the process of developing this final rule, we re-evaluated our methodology and the boundaries defining proposed critical habitat. Following that re-evaluation, we believe that what we had proposed for the five carbonate plants is based on the best scientific and commercial information available and defines what we consider to be essential to the conservation of the five carbonate species. Consequently, we did not modify the designation for the final rule or believe that it was warranted to withdraw the designation and re-propose a new designation.

Comment 2: Two peer reviewers recommended including outlying localized occurrences of *Erigeron parishii* on BLM and University of California Burns Reserve lands into the designation.

Our Response: When we proposed critical habitat for *Erigeron parishii*,

information regarding one of the subject occurrences on BLM land was not available to us. We received information about this occurrence during the initial 60-day public review period for the proposed rule. After reviewing the location, size, and status of this occurrence, we have determined that the habitat encompassing this occurrence is likely to be too small and isolated to be considered as essential to the conservation of the species.

We evaluated the information that we had available concerning the known occurrences on the BLM and University of California Burns Reserve lands during the development of the proposed critical habitat designation. Based on the results of this review we determined that these areas were too isolated from the remaining occurrences and small in area to be considered as essential for the conservation of the species. Consequently, they were not proposed as critical habitat.

Comment 3: One commenter expressed concern that significant amounts of proposed critical habitat on BLM lands are not occupied by *Erigeron parishii* and do not contain constituent elements (*e.g.*, soils), and recommended that we modify critical habitat for this species to exclude areas shown in two maps provided by the commenter.

Our Response: During the development of this final designation we reviewed the SBNF occurrence data for *Eriogonum parishii* and were able to confirm that all of the proposed critical habitat in question include the SBNF mapped occurrences of the species. In subsequent discussions with staff at the BLM's Barstow Field Office, it became evident that BLM did not have the most current and accurate information in their database concerning occurrences of the subject species. In addition, we reviewed our proposed designation and found no aberrations to the methodology we used to determine the critical habitat boundaries in relation to the delineated occurrences on BLM lands.

The commenter also suggested that the subject critical habitat polygons do not contain primary constituent elements (*e.g.*, soils), though no evidence was provided to support the commenter's claim, making it difficult to provide a specific response. However, as defined in the Primary Constituent Elements section of the proposed rule, the species *Erigeron parishii* is associated with soils derived primarily from upstream or upslope limestone, dolomite, or quartz monzonite parent materials. Also, as discussed in the Ecology section of the proposed rule and this final rule, this species is occasionally associated with a granitic/limestone interface. Several occurrences of this species are associated with granitic substrates overlaid by limestone soils (CDFG 2002). If the commenter was using a rock substrate map, it would reveal only the granitic substrate in those areas. Also, by our use of the 100-m UTM grid to delineate critical habitat, the designation likely results in the inclusion of exposed granitic substrates and granitic derived soils in these interface areas. Nevertheless, each critical habitat polygon designated for *Erigeron parishii* is known to include the primary constituent elements for the species.

Comment 4: Two commenters suggested that substantial portions of proposed critical habitat contain non-carbonate rock, and should not be considered habitat for the five carbonate plants. One commenter specifically claimed that the proposed critical habitat included lands adjacent to the ''3N88 or Crystal Creek haul road'' which contained granitic substrate and relatively small, degraded and isolated plant occurrences, and therefore, should be removed from the proposed critical habitat designation.

Our Response: The commenter refers to critical habitat within Unit 1 that includes *Eriogonum ovalifolium* var. *vineum* occurrences. As discussed in the Species Descriptions section of the proposed rule and this final rule, occurrences of some of the five carbonate plants have been described on granitic parent material that has been overlaid with soils derived from carbonate substrates washed down from upslope areas. A review of the geologic map provided by the commenter that includes the topography of the area around the subject haul road suggests that carbonate substrates do occur, and in fact are being actively mined, upslope from the subject haul road. Therefore, it is conceivable, if not likely, that carbonate soils overlay the granitic substrate in this particular area. Furthermore, as this species (including these occurrences) has not been recorded to occur on non-carbonate soils, it would not be unreasonable to assume that the granitic substrate in this area is overlaid with soils derived from carbonate substrates.

The commenter also claimed that four of the five mapped, localized occurrences immediately adjacent to the subject haul road are considered to be lost, extirpated, disturbed, declining, or difficult to protect. While reviewing this information, we noted that the fifth occurrence appears much larger and is presumably intact, and that all five occurrences are relatively close together. As discussed in the Ecology and Critical Habitat Designation sections of this final rule, there is some evidence to support that relatively sparse or small occurrences in close proximity to larger ones may help facilitate gene flow among larger populations. Therefore, we consider each carbonate plant occurrence in the subject critical habitat area to be important to maintaining the natural population dynamics of local extirpation and colonization events that are necessary for the conservation of the species. Furthermore, as we noted in the Ecology section of the proposed rule and this final rule, persistence of the carbonate plants requires sufficient suitable habitat contiguous with areas that are currently occupied by the plants.

Finally, as stated in the Primary Constituent Elements section of the proposed rule and this final rule, all areas designated as critical habitat for *Eriogonum ovalifolium* var. *vineum* contain one or more of the primary constituent elements essential for the conservation of the species. After evaluating the information provided by the commenter regarding habitat components, plant occurrences, and rock substrates on lands adjacent to the Crystal Creek (3N88) road, we were able to confirm that primary constituent elements are present in the subject area, it contains habitat components tied to the species, and the area is occupied by the species. Therefore, we consider the lands designated as critical habitat in subject area of Unit 1 to be essential for the conservation of the species.

Comment 5: A few commenters were concerned that the critical habitat proposal lacked documented science, particularly with respect to conclusions made about why lands proposed for designation are essential to the conservation of the species. One commenter further argued that determinations made about the number and configuration of acres or plant occurrences essential to the long-term persistence of these species in the proposed rule was based strictly on intuition rather than through a scientific analysis of population parameters.

Our Response: In developing our proposed designation of critical habitat for the five carbonate plants, we used the best commercial and scientific data available. As discussed in the Critical Habitat section of the proposed rule and this final rule, critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (*i.e.*, areas on which are found the primary constituent elements,

as defined at 50 CFR 424.12(b)). As described in the Methods section of this rulemaking, we were able to utilize available data (*i.e.*, known occurrences, soils, and vegetation associations) to assist in making our determination. As the commenter asserted, there is almost no data on population dynamics and stability of the five carbonate plant species. Nevertheless, we are required to designate, when prudent, critical habitat for listed species and believe our approach used the best scientific and commercial information available to delineate those areas essential to the conservation of the species.

Comment 6: A few commenters expressed concern that no definition of ''essential'' was provided in the proposed rule.

Our Response: As described in the Critical Habitat section of the proposed rule and this final rule, to be included in a critical habitat designation, the habitat must first be ''essential to the conservation of the species.'' Since the word ''essential'' is not a defined term in the Act or regulations governing the Act, it is interpreted the same as in common usage, *i.e.* a necessary component of the process leading to recovery. Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (*i.e.*, areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)). Within the geographic area occupied by the species, we will not designate areas that do not, at the time of the designation, have the primary constituent elements that provide essential life cycle needs of the species. The best available scientific and commercial information regarding the five carbonate plants was used in determining the essential life cycle needs of each species. This information was then utilized to determine the primary constituent elements on which the designation was based.

Comment 7: Several commenters expressed concern that lands proposed for designation include significant portions of known mineral reserves where listed species are not present.

Our Response: As indicated in the Critical Habitat section of this final rule, each polygon representing critical habitat for each species is considered to be occupied by standing plants or seeds and contains one or more of their primary constituent elements. As described in the Criteria Used to Identify Critical Habitat section of the proposed rule and this final rule, the mapped localized occurrences were refined to include: (1) Potential adjacent seed banks; (2) sites to maintain natural equilibrium between local extirpation and colonization events; (3) connectivity of suitable habitat to maintain potential gene flow among sites through pollen and seed dispersal; and (4) upslope or upstream geologic substrates that provide the necessary materials to replace the soils which are continually lost to natural processes. To map these essential lands, we overlaid them with a 100-m UTM grid. Because the grid included some areas that were deemed to be non-essential, we then evaluated all grid cells adjacent to disturbed areas and eliminated grid cells where either the entire cell or the majority of the cell was within a disturbed area. Cells that had documented occurrences of the carbonate plants were retained even if the majority of the cell was disturbed. Since the five carbonate plants occur on carbonate substrates and carbonate derived soils, there is bound to be overlap with mineral reserves.

Comment 8: A few commenters suggest that the proposed rule does not incorporate related scientific and commercial information generated by the draft CHMS. One commenter indicated that most of the lands identified for future mining on draft CHMS maps are included within the proposed critical habitat, even though biologists involved in the CHMS have largely agreed that the mining on these lands would not threaten long-term conservation goals, providing that the mining effects were offset by setting aside occupied habitat elsewhere in the region.

Our Response: We support the CHMS stakeholders ongoing efforts to resolve conflicts between mining and listed species conservation needs. This type of regional conservation effort will likely reduce expenditures of time and resources for all parties involved relative to that expended when these types of conflicts are resolved in a piecemeal fashion. However, the details of the plan have not been finalized (Olson 2002) at this time and the court-ordered time frame for completing this critical habitat designation does not allow the flexibility to wait for the plan's completion.

In preparation of the proposed rule and this final rule, we utilized the available scientific and commercial information generated by SBNF for the draft CHMS to assist in making our critical habitat designation. As discussed in the Background and Methods sections of the proposed rule and this final rule, SBNF provided us with a GIS data layer from their detailed draft CHMS maps that included the SBNF Carbonate Species Suitable Habitat Model and ranking system, SBNF mapped carbonate plant occurrence data, mapped areas of existing disturbance by mining activities, and mapped proposed mining and conservation areas (SBNF GIS data 2001), all of which we considered in our determination of critical habitat. We do not believe that this designation should deter those participating in the CHMS and are confident that the plan will be compatible with this designation.

Comment 9: Two commenters expressed concern about the designation of lands adjacent to existing mining areas. One commenter stated that the designation may result in greater costs to the environment by limiting expansion of existing mines thereby increasing the development of new mining areas. Conversely, another commenter felt that carbonate plant habitat adjacent to existing mining operations is expendable since other lands remain unthreatened by mining disturbance.

Our Response: Adjacency to existing mining areas was not a criteria used in determining which habitat was essential to the conservation of the species. The economic analysis assumes that all acres of undisturbed potentially viable carbonate reserve are of equal value, irrespective of their distance from existing mining and transportation infrastructure. In reality, mining activities—particularly those activities likely to be initiated within the next 20 years—are more likely to expand in concentric circles around existing infrastructure. Many acres within critical habitat that are considered potentially viable reserves are located significant distances from existing infrastructure; conversely, many acres outside critical habitat that are considered viable reserves are much closer to existing infrastructure. To avoid underestimating the potential impact of the rulemaking, however, the economic analysis assigned an equal probability of future mining to all potentially viable reserves.

Comment 10: One commenter suggested that proposed designation of the boundary lines using UTM coordinates is not based on biology and results in the inclusion of lands not containing primary constituent elements.

Our Response: As described in the Criteria Used to Identify Critical Habitat section of the proposed rule and this final rule, we recognize that not all parcels of land designated as critical habitat will contain the habitat components essential to the conservation of the five carbonate

plants. A 100-m grid is used to minimize areas that do not contain the primary constituent elements for the carbonate plants being included in the designation and to provide the public a precise description of the boundaries of the designation. Though mapped as such, existing features and structures, such as buildings, mines that are active at the time of this publication, paved or unpaved roads, other paved or cleared areas, lawns, and other urban landscaped areas are unlikely to contain one or more of the primary constituent elements. Because they do not contain one or more of the primary constituent elements for the species, Federal actions limited to those areas will not trigger a section 7 consultation, unless they may affect the species or primary constituent elements in adjacent critical habitat.

Comment 11: A few commenters interpreted the proposed designation to suggest that all, or nearly all, known occurrences of the five carbonate plants were placed into designated critical habitat. The commenters suggested that (1) there is no scientific data generated by CHMS, SBNF, or any other source, that supports the designation of all or nearly all occupied habitat, (2) that it appeared arbitrary to designate all occurrences that were captured by 100-m UTM grid cells, and (3) that such methods of determining critical habitat does not consider which stands are essential.

Our Response: As described in the Critical Habitat Designation section of this final rule, we did not propose to designate all known occurrences of the five carbonate plants. In our proposed and final designation of critical habitat, we selected essential habitat areas based on occurrence data, soils, vegetation, elevation, topography, and current land uses. To a great extent, this data was obtained from the SBNF, including their work on the CHMS. During the analysis, it was determined that some areas containing one or more primary constituent elements did not represent suitable habitat or were otherwise determined not to be essential for the conservation of the species. For example, lands containing several aggregate occurrences or portions of aggregate occurrences of each species were not designated, because they were either too small or isolated or disturbed by ongoing mining activities. Therefore, they were determined not to be essential to the conservation of the species.

Comment 12: A few commenters interpreted the language in the proposed rule to suggest that any proposed impacts to designated critical habitat would result in an adverse modification and/or jeopardy determination.

Our Response: The commenters refer to specific language in the Critical Habitat section of the proposed rule and this final rule that defines a Federal agency's responsibilities under section 7(a)(2) of the Act and 50 CFR 402.02 of the implementing regulations. One commenter, however, incorrectly interpreted the language in the proposed rule and the Act by assuming that ''destruction,'' per the definition, and ''degradation,'' per the commenters paraphrasing of the critical habitat definition, have the same meaning.

In 50 CFR 402.02 of the implementing regulations, destruction and adverse modification is defined as a ''direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species.'' Therefore, during a consultation on a proposed project in critical habitat we would evaluate the potential direct and indirect impacts of the project on the survival and recovery of the species. Projects that did not ''appreciably diminish the value of critical habitat'' for the survival and recovery of the species would not trigger an adverse modification determination.

Similarly, ''jeopardize the continued existence'' is defined as ''engag[ing] in an action that reasonable would be expected, directly or indirectly, to reduce appreciable the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of the at species.'' Therefore, when evaluating whether a proposed project would result in jeopardy we evaluate the potential direct and indirect impacts of the project and how likely the project is to appreciably reduce the survival and recovery of the species.

Comment 13: One commenter wondered how in the absence of general ecological information we can adequately assess what habitat is critical to the conservation of the species.

Our Response: As described in detail in the Critical Habitat section of the proposed rule and this final rule, section 4 of the Act requires that we designate critical habitat, to the maximum extent prudent and determinable. We are required to base our designations on what, at the time of designation, we know to be essential and therefore critical habitat. Please refer to the Critical Habitat section of this proposed rule for further explanation.

Comment 14: Several commenters stated that the designation was not necessary to protect the five carbonate plants.

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

As described in our proposed rule to designate critical habitat for the five carbonate plants, we determined that it is prudent to propose the designation of critical habitat for these species. We made this determination, in part, because there may be some additional conservation benefits to the species by designating critical habitat on lands essential to the conservation of the five carbonate plants.

Comment 15: A few commenters expressed concern that the proposed rule understates the success of re-vegetation/reclamation efforts on reclaimed mining lands, and natural colonization by carbonate plants on disturbed sites. One commenter concluded that mining (and grazing) is compatible with the life histories of these species.

Our Response: As explained in the Ecology section of this rulemaking, the carbonate plants do not appear to be specifically linked to early vegetation successional stages following natural disturbance; however, they are found on some surfaces that are naturally disturbed by landslides and substrate upheaval (Neel 2000). Primarily, they occur in habitat that is undisturbed by human activities, but instances of colonization onto human-disturbed surfaces have been observed for all of the carbonate plants (Eliason 2002, White 2002). One of the subject commenters cited a USDA 2000 article that addressed the introduction of two of the carbonate plant species on disturbed sites, and claimed that this article clearly shows that re-vegetation/re-establishment of the listed plants is beyond the experimental stage. While we understand that there have been some successful efforts at reintroducing carbonate plant species on disturbed sites, and that some instances of natural recolonization has been observed, there is no evidence at this time to support

that soil structure, and/or habitat structure and function, and/or population dynamics associated with carbonate plant occurrences on disturbed surfaces are equivalent to those of undisturbed surfaces. Consequently, we are unable to ascertain whether disturbance from mining activities is compatible with the life histories of the five carbonate plants.

Comment 16: One commenter concluded that there is no evidence that present populations are at or near a minimum threshold for long-term persistence, and that the listed plants can continue to sustain population declines associated with mining operations well into the future.

Our Response: Although the carbonate plant species may have some ability to occupy reclaimed areas, mining operations have and continue to impact the viability of populations needed to conserve the species. The final listing rule for the five carbonate plants documented the species decline and why they were considered to be threatened or endangered. Limestone mining was cited as the primary threat to these species (59 FR 43652) and the primary threats to these plants continue to include population reduction and habitat loss, degradation, and fragmentation from surface mining activities. While listing the species and designating critical habitat provides significant regulatory protections for the species, they do not automatically halt the loss of individuals of the species. The goal of planning efforts such as the CHMS is to maximize the species recovery potential while providing opportunities for future mining activities.

Comment 17: One commenter expressed concern that the proposed rule makes a case for connectivity of plant occurrences to allow for gene flow, though there is no evidence presented that gene flow for the listed species is reduced across the naturally geologically fragmented habitat.

Our Response: Although anecdotal evidence indicates that the five carbonate plants may behave as metapopulations, the scope of the designation may, in fact, be limited to a great degree by the lack of adequate evidence of these relationships. Though we have not designated critical habitat based on speculation about what might be learned about the five carbonate plants in the future, the commenter poses an interesting question. We do know that within the naturally geologically fragmented landscape, there may be extensive gene flow among populations of at least three of the carbonate plant species, and that the populations of these three species have not been sufficiently isolated to result in genetic divergence (Neel 2002). While it is true that very little is known about how the five carbonate plants may function as metapopulations, these dynamic relationships may be exhibited in some or all of the carbonate plant species.

Just how much additional, if any, suitable habitat would be sufficient to ensure long-term persistence of the carbonate plants remains unclear. One distinction that may result from future work is that the geologically fragmented landscape, as well as naturally fragmented plant communities in the landscape, may not limit pollen and seed dispersal across the landscape, however, large-scale disturbances from mining operations may be shown to limit the movement of pollen and seeds, and result in fragmentation effects detrimental to relationships among populations of the five carbonate plants. Future information regarding ecological relationships or population structure and other factors may support linking aggregate occurrences across lands that at this time cannot be identified as containing primary constituent elements (*e.g.*, those lands with non-carbonate substrates or non-carbonate derived soils, or those lands with plant communities not known to be associated with carbonate plant occurrences).

Comment 18: One commenter suggested that potential threats of habitat and population losses to the five carbonate plant species attributable to mining activities have not been shown to be evident on lands where these activities are not anticipated to occur.

Our Response: Although areas included in the critical habitat designation may not face threats attributable to mining, they do contain features essential to the conservation of the species and, therefore, we have included them in the designation.

Comment 19: Several commenters suggested we propose a new draft designation that does not include unoccupied habitat.

Our Response: As indicated in our proposed rule and again in this final rule, we consider each polygon representing critical habitat for each of the five carbonate plants to be occupied by standing plants and seed as part of the seed bank. During the process of developing this final rule, we re-evaluated our methodology and the boundaries defining proposed critical habitat. Following that re-evaluation, we believe that what we had proposed for the five carbonate plants is based on the best scientific and commercial information available and defines what we consider to be essential to the conservation of the five carbonate species. Consequently, we did not modify the designation for the final rule or believe that it was warranted to withdraw the designation and re-propose a new designation.

Issue 2: Policy and Regulations

Comment 20: Several commenters expressed concern that the proposed critical habitat could negate the efforts of the draft CHMS, and requested that we withdraw, modify, and resubmit the critical habitat proposal, or otherwise make the critical habitat proposal consistent with the draft CHMS.

Our Response: We recognize that critical habitat is only one of many conservation tools for federally listed species, and the designation of critical habitat should not deter participation in the CHMS process. Regional planning, such as the proposed CHMS, are often the most important tools for reconciling land use with the conservation of listed species on Federal lands. We anticipate that future Federal land management plans in the range of the five carbonate plants will include it as a covered species and management will be provided for its long-term conservation. We expect that our future analyses of Federal actions under section 7 of the Act will show that activities carried out in accordance with the provisions of those consultations will not result in the destruction or adverse modification of critical habitat designated for the five carbonate plants. The take minimization and conservation measures provided under these consultations are expected to adequately protect the essential habitat lands designated as critical habitat in this rule, such that the value of these lands for the conservation of the five carbonate plants is not appreciably diminished through direct or indirect alterations. If the CHMS is ultimately approved through a section 7 consultation, we may reassess the critical habitat boundaries in light of the consultation and as funds allow.

During the process of developing this final rule, we re-evaluated our methodology and the boundaries defining proposed critical habitat. Following that re-evaluation, we believe that what we had proposed for the five carbonate plants is based on the best scientific and commercial information available and defines what we consider to be essential to the conservation of the five carbonate species.

Comment 21: One commenter suggested that the designation of critical

habitat is an unnecessary ''duplicative'' layer of regulation.

Our Response: Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, we designate critical habitat at the time a species is determined to be endangered or threatened. Therefore, if it is determined to be prudent, we are required by statute to designate critical habitat. As described in the proposed critical habitat rule, we determined that critical habitat was prudent for the carbonate plants and was necessary under the Act.

Comment 22: One commenter expressed concern over the clarity of language in the proposed rule regarding the exclusion of features such as active mines and roads that will remain within the proposed critical habitat due to mapping scale limitations. The commenter wondered if active mines, existing roads, active quarries, waste/overburden piles, processing facilities and surfaces undergoing reclamation would be excluded if one or more primary constituent elements were present.

Our Response: We recognize that not all parcels of land designated as critical habitat will contain the habitat components essential to the conservation of the five carbonate plants. In developing the proposed and final designation, we made an effort to minimize the inclusion of non-essential areas that do not contain the primary constituent elements for the plants. However, due to the mapping scale, some areas not essential to the conservation of the five carbonate plants were included within the boundaries of final critical habitat. These areas, such as active mines, existing roads, active quarries, processing facilities, and other surfaces with ongoing disturbance are unlikely to provide habitat for the plants. Disturbed surfaces undergoing reclamation, while they may eventually provide some benefit to the species, are not considered essential to the conservation of the five carbonate plants.

As discussed in the Critical Habitat and Primary Constituent Elements sections of the proposed rule and this final rule, we will not designate areas that do not now have the primary constituent elements, as defined at 50 CFR 424.12(b), that provide essential life cycle needs of the species. Therefore, the primary constituent elements of critical habitat for each species include (among other elements) soils with intact, natural surfaces that have not been substantially altered by land use activities. Lands having been altered by land use activities are further defined to include those that are graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment. Even though these lands may be within the boundaries of designated critical habitat, are considered to be critical habitat, and may contain one or more of the primary constituent elements (*e.g.*, rock substrate or soils) for the species, Federal actions limited to those specific areas will not likely trigger a section 7 consultation due to the existing and ongoing disturbance regime, unless they may affect the species or primary constituent elements in adjacent critical habitat.

Comment 23: One commenter suggested that the Service can exclude active mine sites and all other private lands from the designation under section 4(b)(2) of the Act. Another commenter suggested that the economic cost of the designation should outweigh the benefits to the species and critical habitat should be ''further curtailed'' under section 4(b)(2) of the Act.

Our Response: Section 4(b)(2) of the Act and 50 CFR 424.19 requires us to consider the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude an area from critical habitat if we determine that the benefits of exclusion outweigh the benefits of designating the area as critical habitat, unless that exclusion will lead to extinction of the species. To address the commenters' concerns, we re-evaluated lands proposed as critical habitat for economic costs under section 4(b)(2) of the Act. In the development of final critical habitat, we considered the following factors: (1) Results of our economic analyses and final addendum of this rulemaking; (2) the narrow endemic nature and sensitivity of these species and their habitat; (3) the significant correlation between active mines and private lands containing limestone deposits and occurrences of the carbonate plants; (4) the relationship of active mines and private lands to proposed critical habitat; and (5) the relationship between proposed critical habitat and CHMS. Based on our analysis, we believe that the designation of critical habitat will not have a significant economic impact on active mining operations or private lands, and will help focus the mining industry and other stakeholders to areas being identified by the CHMS for future mining to non-essential areas. Furthermore, as discussed in this final rule and our economic analyses and final addendum for this rulemaking, we have determined that no significant adverse economic effects should result from this critical habitat designation. Finally, we do not feel that the designation will have significant negative impact to private lands, the mining industry or the CHMS process. Therefore, we believe that the benefits of designating the lands in this final rule as critical habitat, including private lands and those within the boundaries of active mines, outweigh the benefits of their exclusion from being designated as critical habitat. Consequently, none of the proposed lands have been excluded from the designation based on economic impacts or other relevant factors pursuant to section 4(b)(2) of the Act. Additionally, please refer to our response to Comment 22 for a discussion of lands within active mines that may have on-going or active disturbance.

Comment 24: Two commenters indicated opposition to any critical habitat designation that would lead to a takings of their mining claims without compensation or that would impose limitations on private property not supported by law.

Our Response: As discussed in the Takings section of the proposed rule and this final rulemaking, in accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights''), we have analyzed the potential takings implications of designating approximately 5,335 ha (13,180 ac) of land in San Bernardino County, California, in three units of critical habitat for the five carbonate plants. The takings implications assessment concludes that this rule does not pose significant takings implications. A copy of the Taking Implications Assessment has been included in the supporting record for this rulemaking.

The designation of critical habitat alone does not deny anyone economically viable use of their property. The Act does not automatically restrict all uses of critical habitat, but only imposes restrictions under section 7(a)(2) on Federal agency actions that may result in destruction or adverse modification of designated critical habitat. Use of land is not categorically prohibited, but rather certain restrictions are imposed upon Federal agency actions that may result in the destruction or adverse modification of critical habitat.

We believe that the takings implications associated with this critical habitat designation will be insignificant, even though private lands are included as well as Federal lands. Impacts of critical habitat designation may occur on private lands where there is Federal involvement (*e.g.*, Federal funding or

permitting) subject to section 7 of the Act. Impacts on private entities may also result if the decision on a proposed action on federally owned land designated as critical habitat could affect economic activity on adjoining non-Federal land. Each action would be evaluated by the involved Federal agency, in consultation with us, in relation to its impact on the five carbonate plants and their designated critical habitat.

The Act provides mechanisms, through section 7 consultation, to resolve apparent conflicts between proposed Federal actions, including Federal funding or permitting of actions on private land, and the conservation of the species, including avoiding the destruction or adverse modification of designated critical habitat. Based on our experience with section 7 consultations for all listed species, most projects, including those that in their initial proposed form would result in jeopardy or adverse modification determinations in section 7 consultations, can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. Therefore, we anticipate that this critical habitat designation for the five carbonate plants will not result in significant takings implications on these lands.

Comment 25: One commenter expressed concern that the regulatory burden to Federal agencies will be increased by the proposed designation in unoccupied critical habitat areas.

Our Response: Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification with regard to actions carried out, funded, permitted, or authorized by a Federal agency. 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. Through this consultation, we would ensure that the permitted actions do not destroy or adversely modify critical habitat. In the proposed rule and draft economic analysis, we indicated that we do not expect that the designation of critical habitat would provide significant additional regulatory or economic burdens or restrictions to those afforded the five carbonate plants pursuant to the Act. This conclusion is based on the existing regulatory protections afforded the five carbonate plants from their being listed as threatened or endangered and the fact that the lands designated as critical habitat are considered occupied by the species. However, there may be specific circumstances where critical habitat may trigger an incremental regulatory burden. Please refer to our draft economic analysis for a discussion of these specific cases.

Comment 26: One commenter suggested that the highly fragmented proposed critical habitat designation ignores both the legal direction under the Act mandating promotion of species recovery and basic scientific understanding of requirements for effective species conservation. The commenter further suggested that these views are supported by case law (*Sierra Club* v. *U.S. Fish and Wildlife Service,* 2001 U.S. App. LEXIS 3936 (5th Cir. 2001)).

Our Response: The commenter refers to a recent Fifth U.S. Circuit Court of Appeals case in which the Court determined that requirements to designate critical habitat are aimed at preventing extinction (*i.e.*, jeopardy) and promoting recovery of the listed species. Critical habitat is defined in section 3 of the Act, as amended, to include specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. Failure to conserve enough suitable habitat could potentially reduce the size and viability of fragmented populations as surely as destruction of occupied habitat. However, we believe that based on the current available information concerning the carbonate plants, we are designating lands that we believe are essential to the conservation of these species.

As discussed in the Critical Habitat section of this rulemaking, our regulations state that, ''The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.'' (50 CFR 424.12(e)). We are required to base our designations on what, at the time of designation, we know to be essential to the conservation of the species. Recent genetic work on the five carbonate plants (Neel 2000; Neel and Ellstrand 2001; Neel and Ellstrand, in press) indicate that there is potentially extensive gene flow among populations, and that these fragmented populations have not been sufficiently isolated to undergo divergence. Nevertheless, more precise information on gene flow among carbonate plant populations is needed to justify that additional suitable habitat not currently occupied by the species is essential to the conservation of the five carbonate plants.

Comment 27: One commenter suggested that the critical habitat proposal should include environmental documentation in response to requirements of the National Environmental Policy Act (NEPA). The commenter further suggested that the Service's reliance on a 1983 **Federal Register** Notice to make the determination for not doing an Environmental Impact Statement pursuant to NEPA is inappropriate and inadequate.

Our Response: As we indicated in our proposed rule, we have determined that an Environmental Assessment or an Environmental Impact Statement, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Act. A notice outlining our reason for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244). This position has been upheld by the Ninth Circuit Court of Appeals in *Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995).

Comment 28: One commenter felt that the critical habitat legal descriptions in the **Federal Register** were not appropriate for public comment, as the legal descriptions could not easily be compared to section, range and township descriptions usually found on property ownership maps.

Our Response: This final rule contains the legal descriptions of areas designated as critical habitat required under 50 CFR 424.12(c). These regulations specify that each critical habitat will be defined by specific points and lines as found on standard topographic maps. We also made available a public viewing room where the proposed critical habitat units superimposed on 7.5 minute topographic maps and spot imagery could be inspected. Further, we distributed GIS coverages and maps of the proposed critical habitat to everyone who requested them. We believe the information made available to the public was sufficiently detailed to allow for informed public comment. The accompanying maps are for illustration purposes only. If additional clarification is necessary, contact the Carlsbad Fish and Wildlife Office (*see* **ADDRESSES** section).

Comment 29: One commenter stated that the private lands occupied by the five carbonate plants are not the most significant or most critical to the continued existence of the five carbonate plants.

Our Response: As required by the Act and regulations (section 4(b)(1)(A) and 50 CFR 424.12), we used the best scientific and commercial data available to determine areas that contain the physical and biological features that are essential for the conservation of the five carbonate plants. Therefore, we are designating lands that contain the physical and biological features (primary constituent elements) that are essential to the conservation of the species regardless of landownership.

Comment 30: One commenter indicated critical habitat designation on private lands was not necessary, because mining companies are already subject to aggressive California Environmental Quality Act (CEQA) and Surface Mining Reclamation Act (SMARA) requirements to address these species.

Our Response: Pursuant to subsection 4(3)(A) of the Act and 50 CFR 424.12, we must, to the maximum extent prudent and determinable, designate critical habitat for species listed as endangered or threatened under the Act. Our proposed rule to designate critical habitat for the five carbonate plants and this final rule are in compliance with the Act and implementing regulations. While we recognize that California State law includes clear references to habitat values, we do not find that the provisions of CEQA and SMARA make the designation of critical habitat on privately owned lands unnecessary under the Act. Even with the provisions of CEQA and SMARA, we believe that the units designated continue to require special management and protection to ensure the conservation carbonate plants and their habitat.

As discussed previously, section 4(b)(2) of the Act and 50 CFR 424.19 requires us to consider the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We consider the effects of the critical habitat designation under California State law in our analysis. As discussed in this final rule and our economic analyses and final addendum for this rulemaking, we do not feel that the designation will have significant negative impact to private lands or the mining industry. Therefore, we believe that the benefits of designating the lands in this final rule as critical habitat, including private lands and those within the boundaries of active mines, outweigh the benefits of their exclusion from being designated as critical habitat. Consequently, none of the proposed lands have been excluded from the designation based on economic impacts or other relevant factors pursuant to section 4(b)(2) of the Act.

Comment 31: One commenter disagreed with our statement in the Executive Order 13211 section of the proposed rule that ''this action is not a significant energy action; and that no Statement of Energy Effects is Required.'' The commenter suggested that the use of calcium carbonate, a product of limestone mining, reduces the need for millions of barrels of oil, and concluded that the designation will increase the need to import more oil.

Our Response: Executive Order 13211 applies to regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions that may significantly affect primary energy supply, distribution, and use. As discussed in the proposed rule and this final rule, the primary land uses within designated critical habitat for the five carbonate plants include mining, recreation, grazing and U.S. Forest Service operations. Therefore as stated in the proposed and final rule, no significant primary energy production, supply, and distribution facilities are included within designated critical habitat. We believe that the use of calcium carbonate as a filler to reduce the need for the importation of oil would be considered to be a secondary effect and consequently not considered under this Executive Order. As a result, this action is not a significant action affecting primary energy production, supply, and distribution facilities, and no Statement of Energy Effects is required.

Comment 32: Several commenters expressed opposition to a mineral withdrawal on SBNF lands.

Our Response: The proposed mineral withdrawal on SBNF lands is a U.S. Forest Service action. Though the proposed mineral withdrawal may be related to the SBNF's future management strategies for the five carbonate plants and other sensitive species and habitat, it is not a factor in our determination of critical habitat for the five carbonate plants.

Comment 33: A few commenters expressed opposition to the listing of the five carbonate plants. One commenter suggested that there is almost no peer-reviewed science to support the listing, and that the species' range is from Canada to Mexico. In conclusion, the commenter requested that a National Academy of Sciences Panel be convened to review the listing action.

Our Response: The current rulemaking is for the consideration and designation of critical habitat for the five carbonate plant species. While some may not agree with the action or rationale for the listing of these species in 1994 (59 FR 43652), that was a separate rulemaking procedure and will not be addressed herein. If the commenters believe that the five carbonate plant species were listed in error, then a more appropriate avenue would be to submit a petition with documentation supporting their position for a formal review pursuant to our petition management guidance.

Comment 34: One commenter expressed concern that, by taking an expansive and overbroad approach to critical habitat designation, we ignore the clear intent of Congress that a more restrictive approach—designating only occupied areas and those areas ''essential to the conservation of the species''—be implemented.

Our Response: In proposing critical habitat for the five carbonate plants, we identified those finite areas that we believed to be essential to the conservation of these species. We recognize that not all parcels of land designated as critical habitat will contain the habitat components essential to the conservation of the five carbonate plants.

In developing the proposal and this final designation, we made an effort to minimize the inclusion of nonessential areas that do not contain the primary constituent elements for the five carbonate plants. However, due to our mapping scale, some areas not essential to the conservation of the species were included within the boundaries of proposed and final critical habitat. These areas, such as existing mining operations, existing roads or other developed lands are unlikely to provide habitat for the five carbonate plants. Because they do not contain one or more of the primary constituent elements for the species, Federal actions limited to those areas will not trigger a section 7 consultation, unless they affect the species or primary constituent elements in adjacent critical habitat.

Comment 35: One commenter suggested the recent Court cases invalidated our definition of adverse modification, and limited our authority under the jeopardy standard, thereby setting a lower threshold for adverse modification than that for the jeopardy standard.

Our Response: In the March 15, 2001, decision of the United States Court of Appeals for the Fifth Circuit (*Sierra Club* v. *U.S. Fish and Wildlife Service et al.*, 245 F.3d 434) regarding a challenge to a not prudent finding, the Court determined that our definition of destruction or adverse modification as currently contained in 50 CFR 402.02 is

invalid. In response to this decision, we are reviewing the regulatory definition of adverse modification in relation to the conservation of the species.

Issue 3: Economic Issues

Comment 36: A number of commenters provided information and general comments on regional and specific economics of the area and industries within proposed critical habitat prior to the release of the draft economic analysis. Further, several commenters provided specific comments on the draft economic analysis relating to various data and information used in the analysis.

Our Response: We appreciated receiving information concerning regional and specific economics of the area and industries within proposed critical habitat. Copies of all public comments on the proposed designation of critical habitat for the five carbonate plants were provided to our Division of Economics and their consultants, Industrial Economics, Inc., and subconsultants, Economic & Planning Systems, for use in the development of the draft economic analysis of the proposed designation. Additionally, we provided our Division of Economics, their consultants, and subconsultants with copies of all comments and information on the draft economic analysis submitted during the second public comment period for their use in developing the final addendum to the draft economic analysis. Specific information and comments related to the potential economic effects of the designation of critical habitat for the five carbonate plants and information contained within the draft economic analysis are addressed in this final rule, the draft economic analysis, or the final addendum to the draft economic analysis.

Comment 37: Several commenters critiqued a variety of underlying assumptions in the draft economic analysis without providing any alternative sources of information or approaches.

Our Response: While we appreciate comments concerning our approach to evaluating the potential economic effect of the critical habitat designation for the five carbonate plants, it is difficult for us to respond to or utilize comments that merely suggest that our approach is flawed or the underlying assumptions of our analysis are wrong. We can only acknowledge receipt of these comments and include them in the supporting record for the rulemaking. However, we attempted to address all comments in this final rule or in the final addendum to the draft economic analysis that provided specific information. Additionally, we are mandated to follow certain guidelines and standards for the development of economic analyses. These are referred to in our draft economic analysis and the final addendum to the draft economic analysis.

Comment 38: Several commenters stated that the required economic analysis was not completed and available for public review and comment concurrently with the release of the proposed critical habitat designation.

Our Response: Pursuant to subsection 4(b)(2) of the Act, we are to evaluate, among other relevant factors, the potential economic effects of the designation of critical habitat for the five carbonate plants during the development of the designation. We published our proposed designation in the **Federal Register** on February 12, 2002 (67 FR 6578). At that time, our Division of Economics, their consultants, Industrial Economics, Inc., and subconsultants, Economic & Planning Systems, initiated the draft economic analysis. The draft economic analysis was made available for public comment and review beginning on September 20, 2002 (67 FR 59239). Following a 30-day public comment period on the proposal and draft economic analysis, a final addendum to the economic analysis was completed. Both the draft economic analysis and final addendum were used in the development of this final designation of critical habitat for the five carbonate plants. Consequently, we believe that we are in compliance with the provision of subsection 4(b)(2) of the Act. Please refer to the Economic Analysis section of this final rule for a more detailed discussion of these documents.

Comment 39: A few commenters expressed concern that the Service continues to use a ''baseline'' or incremental approach to quantifying economic impacts of the proposed rule. The commenters clarified that the Service has repeatedly stated its intention to follow the mandate of the *New Mexico Cattle Growers Association* v. *U.S.F.W.S.,* 248 F.3d 1277 (10th Cir. 2001) on the southwestern willow flycatcher critical habitat, but has seemingly failed to do so.

Our Response: In *New Mexico Cattle Growers Association* v. *U.S.F.W.S.,* the 10th Circuit Court of Appeals held that the baseline approach to the economic analysis of critical habitat designations that was used by the Service for the southwestern willow flycatcher designation was ''not in accord with the language or intent of the [Endangered Species Act (ESA)].''

In this analysis, the Service addresses the 10th Circuit's concern that we give meaning to the ESA's requirement of considering the economic impacts of designation by acknowledging the uncertainty of assigning certain post-designation economic impacts (particularly section 7 consultations) as having resulted from either the listing or the designation. The Service believes that for many species the designation of critical habitat has a relatively small economic impact, particularly in areas where consultations have been ongoing with respect to the species. This is because the majority of the consultations and associated project modifications, if any, already consider habitat impacts and as a result, the process is not likely to change due to the designation of critical habitat. Nevertheless, we recognize that the nationwide history of consultations on critical habitat is not broad, and, in any particular case, there may be considerable uncertainty whether an impact is due to the critical habitat designation or the listing alone. We also understand that the public wants to know more about the kinds of costs consultations impose and frequently believe that designation could require additional project modifications.

Therefore, this analysis incorporates two baselines. One addresses the impacts of critical habitat designation that may be ''attributable co-extensively'' to the listing of the species. Because of the potential uncertainty about the benefits and economic costs resulting from critical habitat designations, we believe it is reasonable to estimate the upper bounds of the cost of project modifications based on the benefits and economic costs of project modifications that would be required due to consultation under the jeopardy standard. It is important to note that the inclusion of impacts attributable co-extensively to the listing does not convert the economic analysis into a tool to be considered in the context of a listing decision. As the court reaffirmed in the southwestern willow flycatcher decision, ''the ESA clearly bars economic considerations from having a seat at the table when the listing determination is being made.''

The other baseline, the lower boundary baseline, will be a more traditional rulemaking baseline. It will attempt to provide the Service's best analysis of which of the effects of future consultations actually result from the regulatory action under review—*i.e.* the critical habitat designation. These costs will, in most cases be the costs of

additional consultations, reinitiated consultations, and additional project modifications that would not have been required under the jeopardy standard alone as well as costs resulting from uncertainty and perceptional impacts on markets.

Comment 40: A few commenters expressed concern that the proposed rule states that the designation would result in little or no incremental economic effect. Another commenter cited language from the proposed rule that suggests that there may be instances when a section 7 consultation is triggered only by the presence of critical habitat.

Our Response: We agree that, as a result of the designation, there may be additional cost resulting from new consultations or the re-initiation of existing consultations. However, based on our analysis, we believe these events to be minimal in number and the potential costs resulting from them to be minor.

Please refer to our analysis of the potential economic effects of the designation in our draft economic analysis and the final addendum to the draft economic analysis for further discussion of these issues.

Comment 41: Several commenters expressed concern that information prepared and submitted by Mr. Edward P. Jucevic concerning economics of the mining industries within proposed critical habitat and potential effects resulting from the proposed designation were not substantially incorporated into or acknowledged by the draft economic analysis.

Our Response: Mr. Jucevic, representing the three largest mining companies with lands within the boundaries of proposed critical habitat, provided a response to a request for information made during the preparation of the draft economic analysis of the proposed designation. His report was titled, ''Economic Impact of the Proposed Designation of Critical Habitat'' (Jucevic 2002). He subsequently provided a correction paper to his report. Mr Jucevic's comment letter, his report, and subsequent corrections to his report were provided to our economic consultants for use in the development of the draft economic analysis of the proposed designation of critical habitat for the five carbonate plants. His report provided specific information related to the estimated value of mineral deposits and perceived potential economic impacts resulting from the designation of critical habitat if it were to be finalized as proposed.

Because our draft economic analysis differed significantly from the conclusions asserted by Mr Jucevic in his corrected report, we received substantial public comments on our draft economic analysis, specifically why our economic consultants did not rely more heavily on the data and conclusions of Mr. Jucevic's report in formulating their analysis. Our economic consultants carefully reviewed Mr. Jucevic's analysis, and identified a number of critical methodological problems that appeared to compromise its usefulness as a primary information source. Additionally, many of the assumptions provided in his report are not supported by documentation or citations. Our economists have incorporated into the final addendum to the draft economic analysis a response to Mr. Jucevic's report that describes the aforementioned difficulties with his analysis.

Comment 42: One commenter implied that a significant portion of the United States' economy, the construction industry, is heavily dependant on limestone material generated in the Lucerne Valley area, and that the regional economic impact of the proposed designation would be significant.

Our Response: The regional construction industry relies on limestone from the Lucerne Valley area and elsewhere. We believe that we have adequately analyzed the potential economic effects of the critical habitat designation on the local and regional economy, including the construction industry. Please refer to our draft economic analysis and the final addendum to the draft economic analysis for a more thorough discussion of how we addressed these significant issues.

Comment 43: Several commenters suggested that the analytical methods used in the draft economic analysis fails to address the secondary economic effects that the proposed rule may have on local interests, including material supplies utilized in the housing industry, indirectly related to the mining industry as a consideration under the analysis of ''any other relevant impact.''

Our Response: A number of comments suggested that the draft economic analysis underestimates total future costs because it ignores a number of indirect or distributional costs. Indirect costs refer to costs incurred by industries or third parties not directly associated with the mining industry due to ''downstream'' economic linkages or multiplier effects. For example, several commenters state that the local construction industry (including building materials for the housing industry) or the Lucerne Valley/High Desert economy as a whole would be impacted due to reduced output or increased prices for mining sector products. Distributional costs, in turn, refer to specific categories of direct costs that were not individually addressed in the draft economic analysis, including reduced proceeds to Kaiser Steel retirees, reduced stock market values, or reduction in royalties to the Butterfield family.

Indirect and distributional costs are different categories of costs or economic impact and are treated as such in the draft economic analysis. The distributional costs cited by several commenters are a subset of the total economic impact estimate provided in the draft economic analysis. In general, the costs estimates provided in the draft economic analysis were designed to be comprehensive and include all the direct costs borne by affected parties, as well as any applicable indirect costs that may be associated with other Federal, State, or local requirements in addition to economic impacts that may trickle down from direct effects. Indirect economic impacts, or multiplier affects, are discussed qualitatively in the economic analysis but not quantified. This is because the mining industry, while important to the local economy for diversification purposes, represents a very small portion of San Bernardino's overall employment (less than 0.1 percent).

The economic analysis prepared for our designations are designed to assess the overall impact to the region and to particular economic sectors. These analyses further assess the impacts to small businesses to determine if they could be disproportionately affected by the designation. In general, however, with the exception of the Small Business Impact section, the economic analysis is not designed to trace how the direct costs incurred by the various economic sectors would indirectly affect equity stakeholders. To perform such an analysis is generally far beyond the scope of regulatory analyses as it would require an inherent understanding of the legal construction of corporations, proprietary financial data, and a better understanding of company affiliations. This enhanced understanding is typically not necessary for us to make a final determination as opposed to our need to better understand potential economic impacts to particular industries, which we inherently understand would be borne in some part by equity stakeholders.

Please refer to the final addendum to the draft economic analysis of this rulemaking for a more comprehensive discussion of this issue.

Comment 44: Several commenters believed that our economic analysis failed to adequately consider all of the potential indirect effects associated with this rulemaking. One commenter believed that the economic analysis should include regional transportation issues, air quality compliance strategies, and other growth management issues, while other commenters expressed concerns about the economic loss to stockholders and small businesses such as rail transport, processing and packaging facilities, materials production and construction, and lodging, which would all be presumably associated with a decline in the carbonate rock mining industry.

Response: In some instances, impacts associated with the designation of critical habitat and co-extensive protections that occur because of listing may have indirect effects on the economic community. This may occur either because entities that are directly impacted happen to be a significant link in the economic chain and thus impose upstream and downstream effects on other industries or it may be because the designation may link to requirements in State and local regulations that will cause an additional impact.

The economic analysis prepared for this rulemaking considered both scenarios. First, the economic analysis concluded that the carbonate rock mining industry in the San Bernardino mountains would not be significantly affected by the designation of critical habitat and thus would not indirectly affect upstream and downstream industries in the area dependent on the economic activity of the mining industry. This conclusion was based on the consideration of the practices of the local mining industry and associated impacts to the carbonate plants, the potential for future consultations under section 7 of the Act and associated project modifications, and the likely future demand for carbonate-related materials from the area. Importantly, the economic analysis did not find that the designation would result in curtailment of the mining industry in the area, a premise that formed the basis of concern for some stakeholders. The economic analysis also considered the potential indirect effects associated with State regulation and local practices but concluded that there would be no significant change from current practices.

Comment 45: One commenter indicated that the draft economic analysis asserts that the listing of the five plant species under the Act would result in economic costs, but that only those costs incurred in the area designated as critical habitat are addressed. Another commenter suggested that the draft economic analysis arbitrarily ignores most, if not all, of the impacts associated with the listing of the species.

Our Response: Pursuant to section 4(b) of the Act, we are required to make listing decisions solely on the basis of the best available scientific and commercial data available after conducting a review of the status of the species. Congress also made it clear in the Conference Report accompanying the 1982 amendments to the Act that, ''economic considerations have no relevance to determinations regarding the status of species * * *''. Economic effects are only considered during the listing process to evaluate the potential economic effect of designating critical habitat.

As part of the rulemaking process for designating critical habitat for the five carbonate plants, we are required, pursuant to section 4(b)(2) of the Act and 50 CFR 424.19, to consider the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude an area from critical habitat if we determine that the benefits of exclusion outweigh the benefits of designating the area as critical habitat, unless that exclusion will lead to extinction of the species. Because we do not evaluate the economics of listing a species under the Act at the time of listing, the analysis of economics and other relevant factors conducted for a critical habitat designation that is performed following a listing is limited to the scope of the area being proposed for designation as critical habitat. However, within the area being designated as critical habitat, we did evaluate potential future costs resulting from the listing of the five carbonate plants under the Act. These costs are referred to as co-extensive costs in our draft economic analysis and final addendum to the draft economic analysis.

Comment 46: A few commenters suggested that assumptions in the draft economic analysis regarding the likelihood of future mining on lands designated as critical habitat are invalid, due to the language in the Act and associated regulations prohibiting adverse modification of critical habitat, thereby making all conclusions based on these assumptions questionable.

Our Response: Please refer to our response to Comment 12 for a discussion of this issue.

Comment 47: One commenter suggested that the Service should be able to anticipate specific project modifications that may be recommended in the future, and should include and assess this information in determining the potential economic impacts of the proposed designation.

Our Response: Every consultation under section 7 of the Act is unique in scope and potential effects to listed species and their designated critical habitat. Due in part to the requirement to conduct an effects analysis as part of a biological opinion, it would be predecisional to assume for any hypothetical future project what conservation measures we would recommend. However, in the draft economic analysis we utilized information from previous completed consultations to determine potential project modifications for likely future consultations. Please refer to our draft economic analysis and final addendum to the draft economic analysis for a more thorough discussion of this issue.

Comment 48: One commenter expressed concern that the draft economic analysis ignored the costs triggered by the ''likely finding of significance'' under CEQA and SMARA by removing these costs from the analysis and including them as part of the baseline.

Our Response: According to section 15065 (California Code of Regulations Title 14, Chapter 3) of CEQA guidelines, environmental impact reports are required by local lead agencies when, among other things, a project has the potential to ''reduce the number or restrict the range of an endangered, rare or threatened species.'' Though federally listed species are presumed to meet the CEQA definition of ''endangered, rare or threatened species'' under section 15380 (California Code of Regulations Title 14, Chapter 3), few additional constraints should result from the designation of critical habitat beyond that now in place for all federally listed species, including the five carbonate plants. The presence of designated critical habitat does not necessarily require mitigation according to these California regulations. Only if loss or degradation of the proposed project site's habitat resources (viewed comprehensively) are determined to be significant will significant impacts to habitat be analyzed and mitigation, where feasible, be planned as part of the project.

Beyond the fact that surface mining activities regulated by SMARA are

generally subject to the CEQA process, there is no specific requirement under SMARA regarding findings of significance. The SMARA and the performance standards for wildlife habitat identified in its implementing regulations (California Code of Regulations Title 14, section 3703) do require that reclamation plans provide for the conservation of federally listed species in accordance with the requirements of the federal Endangered Species Act. Such potential future section 7 costs that may be associated with a future mining activity regulated under SMARA were considered in the economic analysis.

Comment 49: One commenter suggested that the ''gross output'' method of determining economic impacts meets the criteria of the recent Tenth Circuit Court decision, and that the value added method used in the draft economic analysis does not.

Our Response: The value of affected reserves is reported by Jucevic in terms of gross revenue (*i.e.*, ''gross output''), obtained by multiplying future tons produced by market price. This measure does not take into account the costs that would be incurred by the mining companies to extract, process and market the limestone reserves. ''Value added'' equals the production value of total mining output minus the costs of the goods and services used to create this output, and is thus a more accurate measure of economic impact than the gross revenue method. We believe the use of the ''value added'' method is consistent with the Tenth Circuit's ruling in the *New Mexico Cattle Growers* case.

Comment 50: One commenter suggested that the proposed critical habitat designation will have a destructive effect on recreation income upon which the valley of Big Bear depends. The commenter specifically cited recreation opportunities in the Baldwin Lake area as being at risk.

Our Response: We are designating critical habitat for *Erigeron parishii* on SBNF lands approximately 1.2 km (0.75 m) from the northeastern edge of the lake bed near Canyon Spring. This area, however, is outside the drainage basin for Baldwin Lake, therefore we do not anticipate that the critical habitat designation will have any economic effect on recreation activities at Baldwin Lake. Further, designation of critical habitat should not have an impact on recreational activities on non-Federal lands in the general area, because the regulatory effects of critical habitat are only triggered where there is a Federal nexus.

Comment 51: One commenter expressed concern that the draft economic analysis did not consider the cost of the designation in light of the CHMS. The commenter clarified that as part of the implementation of the CHMS, the Service will issue a biological opinion for certain future mining projects, but that the designation will lead to a reinitiation of consultation that will greatly increase costs associated with the consultation and project modifications.

Our Response: The commenter appears to be referring to regulations at 50 CFR 402.16 that requires Federal agencies to reinitiate consultation on previously reviewed actions in instances where critical habitat is subsequently designated, and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultations or conference with us on actions for which formal consultation has been completed, if those actions may affect proposed or designated critical habitat. However, since we are only informally consulting on the CHMS, there will not be a reinitiation consultation, but a formal consultation will likely be initiated when the plan is finalized. We anticipate that the consultation associated with the plan will be compatible with this critical habitat designation.

Comment 52: One commenter indicated that, effective October 1, 2002, the economic analysis is subject to the requirements of the Federal Data Quality Act (DQA) 44 U.S.C. 3506, and the specific guidelines that the Service adopted pursuant to the DQA. The commenter suggested that the economic analysis does not meet the criteria that the guidelines require, maximizing the quality, objectivity, utility and integrity of information disseminated by Federal agencies.

Our Response: The U.S. Department of the Interior, of which the Fish and Wildlife Service is part, issued guidelines regarding data quality, in response to the passage of Public Law 106–554 referenced by the commenter. These guidelines, Information Quality Guidelines Pursuant to Section 515 of the Treasury and General Government Appropriations Act For Fiscal Year 2001, became effective October 1, 2002. The Service rulemaking procedure, inclusive of this designation of critical habitat for the five carbonate plants, includes a comprehensive public comment process and imposes a legal obligation on us to respond to comments on all aspects of the action. These procedural safeguards can ensure a thorough response to comments on quality of information. The thorough consideration required by this process generally meets the needs of the request for correction of information process. In the case of rulemakings and other public comment procedures, where we disseminate a study analysis, or other information prior to the final rulemaking, requests for correction will be considered prior to the final action.

We believe the public comment and review process for this rulemaking adequately addresses the commenter's concerns regarding the quality, objectivity, utility, and integrity of the economic analysis. Further, the commenter did not specifically identify how the draft economic analysis did not meet the criteria that the guidelines require. Regardless, we believe that the draft economic analysis was objectively prepared by a professional third party economic consultant, using the best and most reliable available scientific and commercial data available regarding potential costs of the designation, and meets the criteria of the data quality guidelines.

Comment 53: Many commenters suggested that the Service's conclusion that economic harm to the mining industry would be mitigated by the dispersion of mining to other geographic areas ignores the real possibility of harm to local communities.

Our Response: As discussed in the final addendum to the draft economic analysis, the indirect impacts from the critical habitat designation are likely to be minimal due to a variety of factors, including the fact that (1) the mining sector constitutes a very small component of San Bernardino's economy (less than 1 percent of total employment, as noted in the draft economic analysis), (2) the local mining sector's products constitute a relatively small component of total production costs for industries that consume these products, (3) the reduction in mining output due to the listing and proposed designation represents a very small component of total mining output in the County, and (4) the competitive nature of the mining sector suggests that any reduction in supply within the proposed critical habitat boundaries will be off-set by increases in production elsewhere, resulting in a minimal change in consumer prices.

Although the indirect economic impact may be disproportionately concentrated in the Lucerne Valley area, this impact is difficult if not impossible to quantify. For one, economic multipliers are not available below the

county level due to their lack of reliability in a sub-regional context. Indeed, very little economic data of any kind is available on Lucerne Valley given that it is an unincorporated area within San Bernardino County. It is also important to note that the draft economic analysis does not suggest that the mining industry in Lucerne Valley will decline from its current level due to the listing or proposed designation, but rather that future increases in production may be lower than if they were not regulated under section 7 of the Act. The indirect economic impact of regulating future mining expansion is likely to be much smaller than a curtailment or reduction in current output levels.

Comment 54: One commenter suggested that the current pre-draft situation of the CHMS should not be addressed or speculated about in the economic analysis.

Our Response: The CHMS is an ongoing cooperative effort among the Service, SBNF, the BLM, San Bernardino County, the CNPS, mining companies, and other stakeholders. It is geared toward establishing a strategy to balance future mining activity with carbonate plant habitat protection and has been ongoing for approximately five years. While the CHMS is likely to address an agreement between the parties on management protocols for future activities within carbonate plant habitat areas, the fact that it has not yet been adopted precluded its consideration as a baseline element. Had the agreement been adopted, it is likely that the estimated impacts of the economic analysis would be significantly less. However, certain aspects of the economic analysis rely upon information generated as part of the CHMS process as it represents the best available information regarding the mining industry in the area.

Comment 55: We received one comment suggesting that the total costs of the economic analysis should not be discounted. The commenter stated that discounting is only appropriate for evaluating comparisons between alternatives that have variable benefit and cost streams over time. Because the economic analysis does not attempt to fully quantify the economic benefits of the rulemaking, the commenter asserts that the total estimated cost of the regulation is best expressed without discounting.

Our Response: We disagree with the commenter's assertion concerning discounting the potential economic effect of the designation. The primary purpose of discounting is to provide a present value summation of future benefits or costs that accrue in different years. Discounting enables the comparison of benefits or costs occurring in different years within the context of a common unit of measurement (OMB Circular A–94, section 5(a), *http://www.whitehouse.gov/omb/circulars/a094/a094.html*). Accordingly, this practice is recommended by the U.S. Office of Management and Budget (OMB) in their guidelines for cost-benefit studies (*http://www.whitehouse.gov/omb/inforeg/riaguide.htm*). OMB guidance suggests using a discount rate of seven percent to estimate the current value of future resource use in the context of performing regulatory analyses.

We note that contrary to the commenter's assertions, our economic analyses must make comparisons between future costs that are projected to occur in different years. The necessity for discounting does not diminish simply because there is no explicit comparison with future benefits because it is important to understand time preferences for cost estimates when making our final determination. Accordingly, with a positive (non-zero) discount rate, future costs are currently worth less than they are at the time they are incurred. The application of a zero discount rate, which would reflect no time preferences, would imply that a person (or society) would be indifferent to having a $100 dollar cost now and having a $100 dollar cost 50 years from now.

In the process of making our final determination, we turn to our economic analysis for information regarding the estimated costs of the designation and the stakeholders that could be significantly impacted. Because our decision has the potential to impact certain stakeholders in future years, we need to put those impacts into a present day perspective to better compare with the final determination that we are making today. If our economic analysis failed to discount future costs, then it would give an inaccurate picture of the actual resource costs (or benefits) to society from any particular policy or alternative.

Accordingly, the economic analysis prepared for this rulemaking estimates the present value of resource costs to be between approximately $221 million and $357 million with an annualized value of between approximately $16 million and $25 million. Approximately 99.9 percent of this cost represents the current valuation of future foregone limestone rock mining in the San Bernardino mountain area due to Section 7. The costs due solely to the designation of critical habitat are estimated at between $38,000 and $115,900 (annualized value of between $2,700 and $8,255). In making our final determination, we considered this resource cost against the expected conservation benefits to the species. See our response to comment 23 for a complete explanation of our analysis.

Comment 56: One commenter stated that the draft economic analysis did not adequately address the impact of the listing and the designation on residential development, especially the ability to provide affordable housing.

Our Response: As discussed in the final addendum to the economic analysis, the listing or designation is not expected to have a significant effect on the construction cost of new homes and thus on the ability of the development community to supply affordable housing. Please refer to the final addendum for a more thorough discussion of this issue.

Summary of Changes From the Proposed Rule

Based on public comments, we reviewed our methodology for determining the extent of the designation of critical habitat for the five carbonate plants. We believe that we have defined those areas that are essential for the conservation of these five plant species based on the best available scientific and commercial information available. Consequently, we did not refine the boundaries of our original proposed critical habitat for this final designation. We did, however, clarify our description of the methodology and rationale used in defining our boundaries of critical habitat. Please refer to the Methods and the Criteria Used to Identify Critical Habitat sections of the rulemaking for these refinements.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available, and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species. We have conducted an analysis of the economic impacts of designating these areas as critical habitat prior to making a final determination (Economic & Planning Systems, Incorporated

2002a, 2002b). On September 20, 2002, we announced the availability of the draft economic analysis with a notice in the **Federal Register**, and opened a 30-day public comment period on the draft economic analysis and proposed rule (67 FR 59239). Following an evaluation of the draft economic analysis of this designation and the public comments, we completed a final addendum. Our final addendum to the draft economic analysis indicates that the anticipated economic impact resulting from this designation is approximately $38,000 to $116,000. Please refer to the draft economic analysis and final addendum for more details concerning our economic analysis of this designation.

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order (E.O.) 12866, this document is a significant rule and has been reviewed by the Office of Management and Budget (OMB), as OMB determined that this rule may raise novel legal or policy issues. As required by E.O. 12866, we have provided a copy of the rule, which describes the need for this action and how the designation meets that need, and the economic analysis, which assesses the costs and benefits of this critical habitat designation, to OMB for review.

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

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

Small entities include small organizations, such as independent non-profit organizations, small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule as well as the types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

To determine if the rule would affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (*e.g.*, housing development, grazing, mineral mining, timber harvesting, *etc.*). We apply the ''substantial number'' test individually to each industry to determine if certification is appropriate. While SBREFA does not explicitly define either ''substantial number'' or ''significant effect,'' the Small Business Administration as well as other Federal agencies, has interpreted these terms to represent an impact on 20 percent or greater of the number of small entities in any industry and an effect equal to three percent or more of a business' annual sales. Thus a ''substantial number'' of small entities is more than 20 percent of those small entities affected by the regulation, out of the total universe of small entities in the industry or, if appropriate, industry segment. In some circumstances, especially with proposed critical habitat designations of very limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the numbers of small entities potentially affected, we also consider whether their activities have any Federal involvement; some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation.

In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement. Designation of critical habitat only has the potential to affect activities conducted, funded, or permitted by Federal agencies. In areas where the species is present, Federal agencies are already required to consult with us under section 7 of the Act on activities that they fund, permit, or implement that may affect the five carbonate plants. Federal agencies must also consult with us if their activities may affect designated critical habitat. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. Activities with Federal involvement that may require consultation regarding the five carbonate plants and their critical habitat include: regulation of activities affecting waters of the United States by the U.S. Army Corps of Engineers under section 404 of the Clean Water Act; management activities carried out by the SBNF on National Forest lands; and, road construction, maintenance, and right of way designations that are authorized, funded, or carried out by a Federal agency. As required under section 4(b)(2) of the Act, we conducted an analysis of the potential economic impacts of this critical habitat designation. In the analysis, we found that the future section 7 consultations resulting from the listing of the five carbonate plants and the proposed designation of critical habitat could potentially impose total economic costs for consultations and modifications to projects to range between approximately $174 and $281 million over the next 60-year period. Public comment on the draft economic analysis led to a revision of third party cost estimates that would result from section 7 consultations. The changes in cost estimates are discussed and reflected in the Addendum to the Draft Economic Impact Analysis of Critical Habitat Designation for the San Bernardino Carbonate Plants (Economic & Planning Systems, Incorporated 2002b), where we found that the future section 7 consultations resulting from the listing of the five carbonate plants and the proposed designation of critical habitat could potentially impose total economic costs for consultations and modifications to projects to range between approximately $221 and $357 million over the next 60-year period.

Based on the past consultation history of the five carbonate plants, the economic analysis anticipated that future section 7 consultations could

potentially affect small businesses associated with residential development. To be conservative (*i.e.*, more likely to overstate impacts than understate them), the economic analysis assumed that a unique company will undergo each of the consultations forecasted in a given year, and so the number of businesses affected is equal to the total annual number of consultations projected in the economic analysis. There are approximately 291 mining claims overlapping the critical habitat designation, which are held by 46 claimants, 43 of which are conservatively assumed to be small businesses. This estimate is considered to be especially conservative because it assumes that none of the claims owned by the claimants will be mined due to regulatory constraints imposed by section 7 of the Act, and that none has already been mined. In reality, it is likely that some would never have been mined due to economic and geologic factors independent of section 7, and that some of the claims have already been mined or at least partially mined. Conversely, it is also likely that some of the claims will still be mined in the future following the designation of critical habitat.

According to BLM personnel, there are 954 claimants in San Bernardino County, although no information was available regarding the name or size of the individual entities. Assuming the same proportion of large entities to total claimants within the proposed critical habitat area (6.5 percent), this analysis assumes that 892 of the claimants in the County are small entities. This represents a very conservative assumption because it is unlikely that many claimants in the County other than Omya, Mitsubishi, and SMI have greater than 500 employees, and should be excluded as large entities. Dividing the number of ''small'' claimants potentially affected by the designation (43) by the number of ''small'' claimants in the County (892) shows that approximately 4.8 percent of small claimants are potentially affected by the designation, which falls below the 20 percent ''substantial'' number threshold. Finally, one individual holding (a grazing allotment) on BLM land that has been proposed for critical habitat designation could be affected. According to Dun and Bradstreet (Dun's Market Identifiers database 2002), there are 59 establishments engaged in beef cattle ranching or farming (NAICS Code 112111) in San Bernardino County. Therefore, the potentially affected individuals do not represent a ''substantial'' number of affected small entities affected by the designation of critical habitat for the five carbonate plants. The draft economic analysis and final addendum contain the factual bases for this certification and contain a complete analysis of the potential economic effects of this designation. Copies of these documents are in the supporting record for the rulemaking and are available at the Service's Carlsbad Fish and Wildlife Office (*see* **ADDRESSES** section).

In summary, we have considered whether this rule could result in significant economic effects on a substantial number of small entities. We have determined, for the above reasons, that it will not affect a substantial number of small entities. Therefore, we are certifying that the designation of critical habitat for the five carbonate plants will not have a significant economic impact on a substantial number of small entities. Accordingly, a regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 804(2))

OMB's Office of Information and Regulatory Affairs has determined that this rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. In the economic analysis and the final addendum to the economic analysis, we determined that designation of critical habitat would not cause (a) any annual effect on the economy of $100 million or more, (b) any increases in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions, or (c) any significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Refer to final addendum for a complete discussion of the effects of this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211, which applies to regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. The primary land uses within designated critical habitat for the five carbonate plants include mining, recreation, grazing and National Forest operations. No significant energy production, supply, and distribution facilities are included within designated critical habitat. Therefore, this action is not a significant action affecting energy production, supply, and distribution facilities, and no Statement of Energy Effects is required.

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

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

(a) This rule will not ''significantly or uniquely'' affect small governments. A Small Government Agency Plan is not required. Small governments will be affected only to the extent that Federal agencies funding, permitting, or authorizing other activities must ensure that their actions will not adversely affect the critical habitat. However, as discussed above, these actions are currently subject to equivalent restrictions through the listing protections of the species, and no further restrictions are anticipated in areas of occupied designated critical habitat.

(b) For the reasons described in the economic analysis and this final rule, this rule will not produce a Federal mandate on State, local, or tribal governments of $100 million or greater in any year. The designation of critical habitat imposes no obligations on State or local governments. Therefore, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act.

Takings

In accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights''), we have analyzed the potential takings implications of designating approximately 5,335 ha (13,180 ac) of land in San Bernardino County, California, in three units of critical habitat for the five carbonate plants. The takings implications assessment concludes that this rule does not pose significant takings implications. A copy of the Taking Implications Assessment has been included in the supporting record for this rulemaking.

Federalism

In accordance with Executive Order 13132, this rule does not have significant Federalism effects. A Federalism Assessment is not required. In keeping with Department of the Interior policy, we requested information from, and coordinated the development of this critical habitat designation with, appropriate State natural resources agencies in California. We will continue to coordinate any future changes in the designation of critical habitat for the five carbonate plants with the appropriate State

agencies. The designation of critical habitat for the five carbonate plants imposes few, if any, additional restrictions to those currently in place and therefore has little incremental impact on State and local governments and their activities. The designation may provide some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined and the primary constituent elements of the habitat necessary to the conservation of the species are specifically identified. While this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning, rather than waiting for case-by-case section 7 consultations to occur.

Civil Justice Reform

In accordance with Executive Order 12988, the Department of the Interior's Office of the Solicitor has determined that this rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act, as amended. The rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs that are essential for the conservation of the five carbonate plants. We have made every effort to ensure that the final determination contains no drafting errors, provides clear standards, simplifies procedures, reduces burdens, and is clearly written, such that the risk of litigation is minimized.

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 the OMB under the Paperwork Reduction Act. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

We have determined that we do not need to prepare an Environmental Assessment or an Environmental Impact Statement as defined by the National Environmental Policy Act of 1969, in connection with regulations adopted pursuant to section 4(a) of the Act, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This determination does not constitute a major Federal action significantly affecting the quality of the human environment.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, ''Government-to-Government Relations with Native American Tribal Governments'' (59 FR 22951), Executive Order 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes on a government-to-government basis. We are not aware of any Tribal lands essential for the conservation of the five carbonate plants. Therefore, the designated critical habitat for the five carbonate plants does not contain any Tribal lands or lands that we have identified as impacting Tribal trust resources.

References Cited

A complete list of all references cited in this final rule is available upon request from the Carlsbad Fish and Wildlife Office (*see* **ADDRESSES** section).

Author

The primary author of this final rule is Daniel R. Brown (*see* **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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

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. In § 17.12(h), revise the entries for *Astragalus albens, Erigeron parishii, Eriogonum ovalifolium* var. *vineum, Lesquerella kingii* ssp. *bernardina,* and *Oxytheca parishii* var. *goodmaniana* 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 albens	Cushenbury milk-vetch.	U.S.A. (CA)	Fabaceae	E	548	17.96(a)	NA
*	*	*	*	*	*	*	
Erigeron parishii	Parish's daisy	U.S.A. (CA)	Asteraceae	T	548	17.96(a)	NA
*	*	*	*	*	*	*	
Eriogonum ovalifolium var. *vineum*.	Cushenbury buck-wheat.	U.S.A. (CA)	Polygonaceae	E	548	17.96(a)	NA
*	*	*	*	*	*	*	
Lesquerella kingii ssp. *bernardina*.	San Bernardino Mountains bladderpod.	U.S.A. (CA)	Brassicaceae	E	548	17.96(a)	NA

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
*	*	*	*	*	*		
Oxytheca parishii var. *goodmaniana*.	Cushenbury oxytheca.	U.S.A. (CA)	Polygonaceae	E	548	17.96(a)	NA
*	*	*	*	*	*		

3. Amend paragraph (a) of § 17.96 to add critical habitat entries for the *Astragalus albens, Erigeron parishii, Eriogonum ovalifolium* var. *vineum, Lesquerella kingii* ssp. *bernardina,* and *Oxytheca parishii* var. *goodmaniana* in alphabetical order by family under Asteraceae, Brassicaceae, Fabaceae, and Polygonaceae (respectively) to read as follows:

§ 17.96 Critical habitat—plants.

(a) * * *

Family Asteraceae: *Erigeron Parishii* (Parish's Daisy)

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

(2) The primary constituent elements of critical habitat for *Erigeron parishii* are those habitat components that are essential for the primary biological needs of the species. Based on our current knowledge of this species, the primary constituent elements of critical habitat for this species are listed below and consist of, but are not limited to:

(i) Soils derived primarily from upstream or upslope limestone, dolomite, or quartz monzonite parent materials that occur on dry, rocky hillsides, shallow drainages, or outwash plains at elevations between 1,171 and 1,950 m (3,842 and 6,400 ft);

(ii) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(iii) Associated plant communities that have areas with an open canopy cover.

(3) Existing features and structures, such as buildings, active mines, paved or unpaved roads, other paved or cleared areas, lawns, and other urban landscaped areas, are not likely to contain one or more of the primary constituent elements. Federal actions limited to those areas, therefore, would not trigger a section 7 consultation, unless they may affect the species or primary constituent elements in adjacent critical habitat.

(i) Note: Index map follows:

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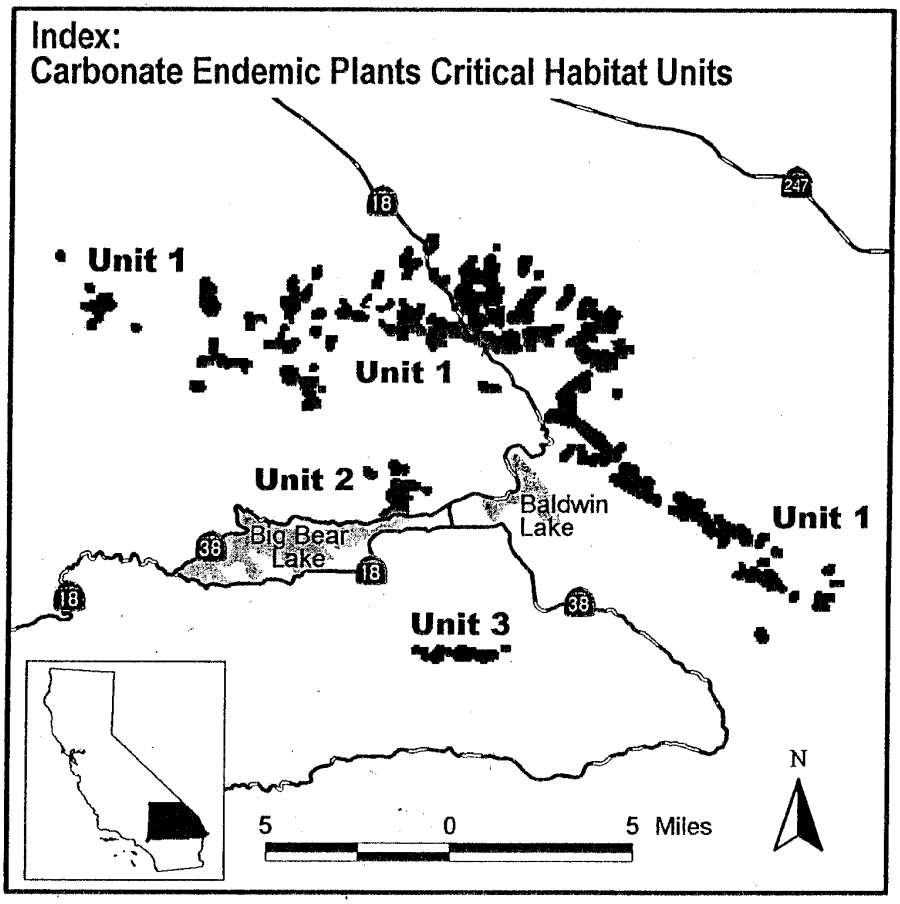

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(4) Northeastern Slope Unit, San Bernardino County, California.

(i) From USGS 1:24,000 quadrangle maps Fawnskin, Big Bear City, and Onyx Peak, California.

(ii) Subunit 1a: land bounded by the following UTM11 NAD27 coordinates (E, N): 507200, 3802000; 507400, 3802000; 507400, 3801800; 507500, 3801800; 507500, 3801600; 507400, 3801600; 507400, 3801500; 507500, 3801500; 507500, 3801200; 507600, 3801200; 507600, 3801300; 507700, 3801300; 507700, 3801400; 507800, 3801400; 507800, 3801500; 507900, 3801500; 507900, 3801600; 508100, 3801600; 508100, 3801100; 508000, 3801100; 508000, 3800900; 507900, 3800900; 507900, 3800800; 507700, 3800800; 507700, 3800900; 507600, 3800900; 507600, 3801000; 507500, 3801000; 507500, 3800700; 507400, 3800700; 507400, 3800300; 507300, 3800300; 507300, 3799900; 507100, 3799900; 507100, 3800100; 506900, 3800100; 506900, 3800500; 506800, 3800500; 506800, 3800700; 506700, 3800700; 506700, 3801100; 507100, 3801100; 507100, 3801400; 507000, 3801400; 507000, 3801800; 507100, 3801800; 507100, 3801900; 507200, 3801900; and 507200, 3802000.

(iii) Subunit 1b: Land bounded by the following UTM11 NAD27 coordinates (E, N): 508300, 3802400; 508500, 3802400; 508500, 3801900; 508400, 3801900; 508400, 3801800; 508100, 3801800; 508100, 3802300; 508300, 3802300; and 508300, 3802400.

(iv) Subunit 1c: Land bounded by the following UTM11 NAD27 coordinates (E, N): 509700, 3800500; 510200, 3800500; 510200, 3800200; 510100, 3800200; 510100, 3800100; 509700, 3800100; and 509700, 3800500.

(v) Subunit 1d: Land bounded by the following UTM11 NAD27 coordinates (E, N): 510300, 3801000; 510500, 3801000; 510500, 3800800; 510300, 3800800; and 510300, 3801000.

(vi) Subunit 1e: Land bounded by the following UTM11 NAD27 coordinates (E, N): 510900, 3802200; 511200, 3802200; 511200, 3801700; 511100, 3801700; 511100, 3801400; 510700, 3801400; 510700, 3801800; 510800, 3801800; 510800, 3802100; 510900, 3802100; and 510900, 3802200.

(vii) Subunit 1f: Land bounded by the following UTM11 NAD27 coordinates (E, N): 511400, 3801000; 511600, 3801000; 511600, 3800900; 511700, 3800900; 511700, 3800700; 511600, 3800700; 511600, 3800600; 511500, 3800600; 511500, 3800500; 511200, 3800500; 511200, 3800400; 511000, 3800400; 511000, 3800500; 510900, 3800500; 510900, 3800600; 511000, 3800600; 511000, 3800700; 511300, 3800700; 511300, 3800800; 511400, 3800800; and 511400, 3801000.

(viii) Subunit 1g: Land bounded by the following UTM11 NAD27 coordinates (E, N): 511800, 3800000; 512200, 3800000; 512200, 3799900; 512300, 3799900; 512300, 3799800; 512400, 3799800; 512400, 3799800; 512400, 3799500; 512300, 3799400; 511900, 3799400; 511900, 3799500; 511700, 3799500; 511700, 3799400; 511500, 3799400; 511500, 3799500; 511400, 3799500; 511400, 3799600; 511300, 3799600; 511300, 3799800; 511800, 3799800; and 511800, 3800000.

(ix) Subunit 1h: Land bounded by the following UTM11 NAD27 coordinates (E, N): 512100, 3800700; 512400, 3800700; 512400, 3800600; 512500, 3800600; 512500, 3800400; 512600, 3800400; 512600, 3800300; 512700, 3800300; 512700, 3800100; 512600, 3800100; 512600, 3800000; 512300, 3800000; 512300, 3800300; 512200, 3800300; 512200, 3800200; 512100, 3800200; 512100, 3800100; 511900, 3800100; 511900, 3800200; 511800, 3800200; 511800, 3800400; 511900, 3800400; 511900, 3800500; 512100, 3800500; and 512100, 3800700.

(x) Subunit 1i: Land bounded by the following UTM11 NAD27 coordinates (E, N): 512200, 3803200; 512400, 3803200; 512400, 3802900; 512100, 3803100; 512500, 3803100; 512500, 3802800; 512400, 3802800; 512400, 3802600; 512500, 3802600; 512500, 3802700; 512800, 3802700; 512800, 3802600; 512900, 3802600; 512900, 3802400; 512800, 3802400; 512800, 3802300; 512700, 3802300; 512700, 3802200; 512500, 3802200; 512500, 3802000; 512400, 3802000; 512400, 3801800; 512000, 3801800; 512000, 3802100; 512100, 3802100; 512100, 3802300; 511900, 3802300; 511900, 3802800; 512000, 3802800; 512000, 3802900; 512100, 3802900; 512100, 3803100; 512200, 3803100; and 512200, 3803200.

(xi) Subunit 1j: Land bounded by the following UTM11 NAD27 coordinates (E, N): 513300, 3802300; 513600, 3802300; 513600, 3802000; 513700, 3802000; 513700, 3801900; 513800, 3801900; 513800, 3802000; 514100, 3802000; 514100, 3801600; 514000, 3801600; 514000, 3801400; 513800, 3801400; 513800, 3801500; 513600, 3801500; 513600, 3801600; 513400, 3801600; 513400, 3801700; 513300, 3801700; 513300, 3801800; 513200, 3801800; 513200, 3802200; 513300, 3802200; and 513300, 3802300.

(xii) Subunit 1k: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515800, 3802900; 516000, 3802900; 516000, 3802800; 516100, 3802800; 516100, 3802500; 516300, 3802500; 516300, 3802200; 516000, 3802200; 516000, 3802000; 516100, 3802000; 516100, 3801900; 516200, 3801900; 516200, 3801700; 516300, 3801700; 516300, 3801500; 516400, 3801500; 516400, 3800800; 516300, 3800800; 516300, 3800700; 516000, 3800700; 516000, 3801300; 515900, 3801300; 515900, 3801400; 515800, 3801400; 515800, 3801600; 515700, 3801600; 515700, 3801700; 515100, 3801700; 515100, 3801800; 515000, 3801800; 515000, 3801500; 515100, 3801500; 515100, 3801200; 515000, 3801200; 515000, 3801100; 514900, 3801100; 514900, 3800700; 514400, 3800700; 514400, 3801000; 514300, 3801000; 514300, 3801400; 514400, 3801400; 514400, 3801500; 514500, 3801500; 514500, 3801600; 514600, 3801600; 514600, 3801600; 514600, 3802100; 514700, 3802100; 514700, 3802400; 514800, 3802400; 514800, 3802600; 514900, 3802600; 514900, 3802800; 515300, 3802800; 515300, 3802500; 515200, 3802500; 515200, 3802300; 515400, 3802300; 515400, 3802200; 515400, 3802200; 515500, 3802200; 515500, 3802100; 515600, 3802700; 515700, 3802700; 515700, 3802800; 515800, 3802800, and 515800; 3802900.

(xiii) Subunit 1l: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515600, 3801200; 515900, 3801200; 515900, 3800800; 515500, 3800800; 515500, 3801100; 515600, 3801100; and 515600, 3801200.

(xiv) Subunit 1m: Land bounded by the following UTM11 NAD27 coordinates (E, N): 514900, 3799900; 514900, 3800000; 515000, 3800000; 515000, 3800200; 514900, 3800200; 514900, 3800500; 515000, 3800500; 515000, 3800600; 515400, 3800600; 515400, 3800200; 515500, 3800200; 515500, 3799700; 515400, 3799700; 515400, 3799600; 516000, 3799600; 516000, 3799500; 516100, 3799500; 516100, 3799200; 516500, 3799200; 516500, 3799100; 516600, 3799100; 516600, 3798900; 516500, 3798900; 516500, 3798800; 516200, 3798800; 516200, 3798800; 516200, 3798900; 516000, 3798900; 516000, 3799100; 515900, 3799100; 515900, 3799000; 515700, 3799000; 515700, 3799100; 515600, 3799100; 515600, 3799000; 515200, 3799000; 515200, 3799100; 514800, 3799100; 514800, 3799200; 514700, 3799200; 514700, 3799300; 514100, 3799300; 514100, 3799400; 514000, 3799400; 514000, 3799300; 513600, 3799300; 513600, 3799400; 513500, 3799400; 513500, 3799600; 513600, 3799600; 513600, 3799700; 513500, 3799700; 513500, 3800000; 513600, 3800000; 513600, 3800100; 513700, 3800100; 513700, 3800200; 513900, 3800200; 513900; 3800000; 514700, 3800000; 514700, 3799900; and 514900, 3799900; excluding land bounded by 514900, 3799900; 514900, 3799700; 515000, 3799700; 515000, 3799900; and 514900, 3799900.

(xv) Subunit 1n: Land bounded by the following UTM11 NAD27 coordinates (E, N): 517300, 3801000; 517800, 3801000; 517800, 3800600; 517600, 3800600; 517600, 3800300; 517500, 3800300; 517500, 3800200; 517000, 3800200; 517000, 3800700; 517100, 3800700; 517100, 3800800; 517200, 3800800; 517200, 3800900; 517300, 3800900; and 517300, 3801000.

(xvi) Subunit 1o: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519200, 3801600; 519500, 3801600; 519500, 3801500; 519600, 3801500; 519600, 3801100; 519500, 3801100; 519500, 3800900; 519400, 3800900; 519400, 3800800; 519300, 3800800; 519300, 3800700; 519200, 3800700; 519200, 3800600; 519100, 3800600; 519100, 3800500; 518800, 3800500; 518800, 3800900; 518900, 3800900; 518900, 3801000; 519000, 3801000; 519000, 3801100; 519100, 3801100; 519100, 3801500; 519200, 3801500; and 519200, 3801600.

(xvii) Subunit 1p: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520000, 3801100; 520300, 3801100; 520300, 3800700; 520100, 3800700; 520100, 3800600; 519900, 3800600; 519900, 3800700; 519800, 3800700; 519800, 3800900; 519900, 3800900; 519900, 3801000; 520000, 3801000; and 520000, 3801100.

(xviii) Subunit 1q: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521100, 3800700; 521300, 3800700; 521300, 3800600; 521400, 3800600; 521400, 3800500; 521600, 3800500; 521600, 3800300; 521700, 3800300; 521700, 3800200; 521600, 3800200; 521600, 3800100; 521500, 3800100; 521500, 3800000; 521300, 3800000; 521300, 3799900; 521200, 3799900; 521200, 3799700; 521000, 3799700; 521000, 3799600; 520900, 3799600; 520900, 3799500; 520500, 3799500; 520500, 3799100; 520300, 3799100; 520300, 3799300; 520200, 3799300; 520200, 3799200; 520000, 3799200; 520000, 3799000; 520200, 3799000; 520200, 3798900; 520300, 3798900; 520300, 3798800; 520700, 3798800; 520700, 3798600; 520800, 3798600; 520800, 3798700; 521500, 3798700; 521500, 3798800; 521300, 3798800; 521300, 3798900; 521700, 3798900; 521700,

3799000; 522000, 3799000; 522000, 3798900; 522100, 3798900; 522100, 3798700; 522000, 3798700; 522000, 3798600; 521900, 3798600; 521900, 3798400; 521500, 3798400; 521500, 3798100; 521300, 3798100; 521300, 3798000; 521200, 3798000; 521200, 3797800; 520600, 3797800; 520600, 3797900; 520500, 3797900; 520500, 3798100; 520400, 3798100; 520400, 3798200; 520300, 3798200; 520300, 3798400; 520200, 3798400; 520200, 3798500; 520100, 3798500; 520100, 3798600; 519600, 3798600; 519600, 3798900; 519200, 3798900; 519200, 3799200; 519300, 3799200; 519300, 3799300; 519500, 3799300; 519500, 3799400; 519700, 3799400; 519700, 3799500; 519900, 3799500; 519900, 3799600; 520100, 3799600; 520100, 3799700; 520300, 3799700; 520300, 3799800; 520400, 3799800; 520400, 3799900; 520500, 3799900; 520500, 3800100; 520600, 3800100; 520600, 3800300; 520800, 3800300; 520800, 3800400; 520900, 3800400; 520900, 3800500; 521000, 3800500; 521000, 3800600; 521100, 3800600; and 521100, 3800700.

(xix) Subunit 1r: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519200, 3797300; 519600, 3797300; 519600, 3796900; 519500, 3796900; 519500, 3796800; 519400, 3796800; 519400, 3796600; 519300, 3796600; 519300, 3796500; 519500, 3796500; 519500, 3796400; 519600, 3796400; 519600, 3796100; 519700, 3796100; 519700, 3796000; 519600, 3796000; 519600, 3795400; 519300, 3795400; 519300, 3795500; 518500, 3795500; 518500, 3795900; 518800, 3795900; 518800, 3796000; 519000, 3796000; 519000, 3796100; 519100, 3796100; 519100, 3796200; 519200, 3796200; 519200, 3796500; 518900, 3796500; 518900, 3796600; 518800, 3796600; 518800, 3796900; 518900, 3796900; 518900, 3797000; 519100, 3797000; 519100, 3797200; 519200, 3797200; and 519200, 3797300.

(xx) Subunit 1s: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520000, 3797600; 520300, 3797600; 520300, 3797100; 520100, 3797100; 520100, 3797000; 520000, 3797000; 520000, 3796900; 519800, 3796900; 519800, 3797000; 519700, 3797000; 519700, 3797400; 519800, 3797400; 519800, 3797500; 520000, 3797500; and 520000, 3797600.

(xxi) Subunit 1t: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521300, 3797100; 521700, 3797100; 521700, 3796700; 521600, 3796700; 521600, 3796600; 521400, 3796600; 521400, 3796700; 521300, 3796700; and 521300, 3797100.

(xxii) Subunit 1u: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519300, 3794600; 519700, 3794600; 519700, 3794300; 519600, 3794300; 519600, 3794100; 519500, 3794100; 519500, 3794000; 519400, 3794000; 519400, 3793900; 519300, 3793900; 519300, 3793800; 519000, 3793800; 519000, 3794200; 519100, 3794200; 519100, 3794300; 519200, 3794300; 519200, 3794400; 519300, 3794400; and 519300, 3794600.

(xxiii) Subunit 1v: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519800, 3794300; 520200, 3794300; 520200, 3793900; 520300, 3793900; 520300, 3794000; 520500, 3794000; 520500, 3794100; 521000, 3794100; 521000, 3794200; 521600, 3794200; 521600, 3793900; 521500, 3793900; 521500, 3793800; 521200, 3793800; 521200, 3793700; 521100, 3793700; 521100, 3793600; 520800, 3793600; 520800, 3793700; 520600, 3793700; 520600, 3793600; 520300, 3793600; 520300, 3793700; 520200, 3793700; 520200, 3793800; 520000, 3793800; 520000, 3793700; 519800, 3793700; and 519800, 3794300.

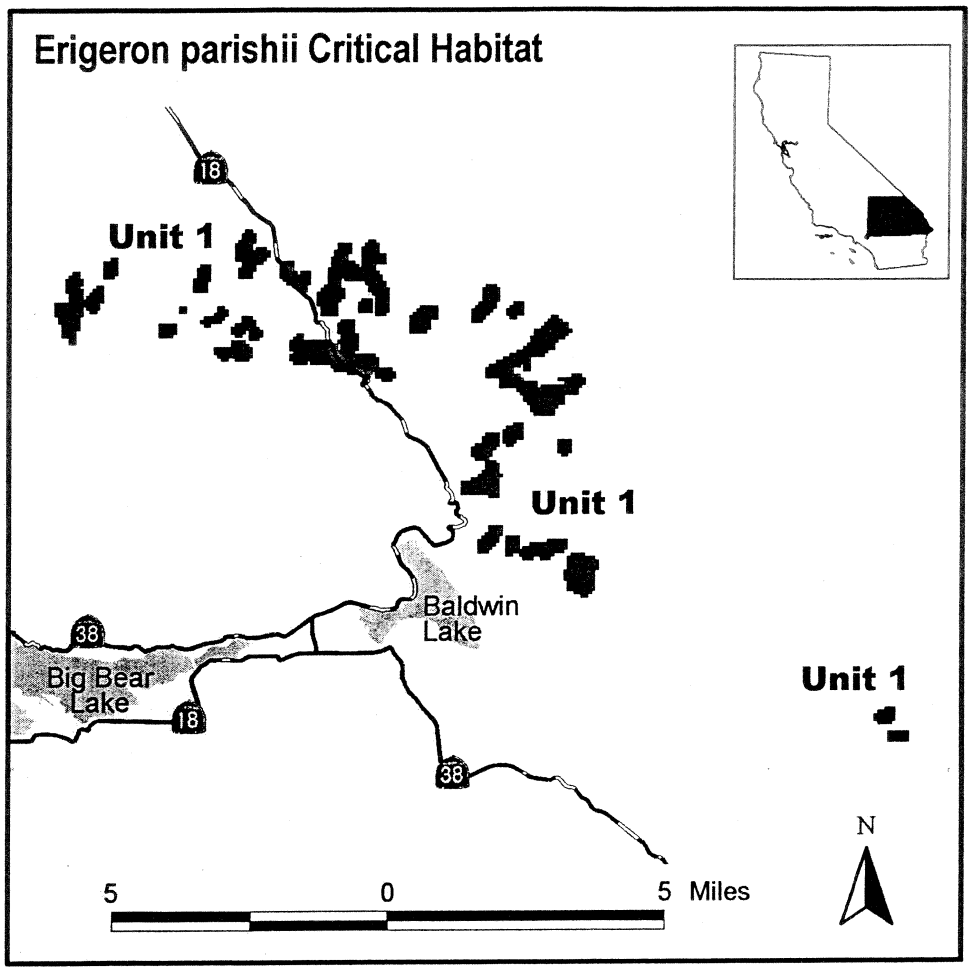
(xxiv) Subunit 1w: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521700, 3793800; 522100, 3793800; 522100, 3793700; 522400, 3793700; 522400, 3793600; 522500, 3793600; 522500, 3793300; 522400, 3793300; 522400, 3792700; 522300, 3792700; 522300, 3792600; 522200, 3792600; 522200, 3792500; 522000, 3792500; 522000, 3792600; 521800, 3792600; 521800, 3792700; 521600, 3792700; 521600, 3793000; 521500, 3793000; 521500, 3793300; 521600, 3793300; 521600, 3793700; 521700, 3793700; and 521700, 3793800.

(xxv) Subunit 1x: Land bounded by the following UTM11 NAD27 coordinates (E, N): 530800, 3789300; 531100, 3789300; 531100, 3788900; 531000, 3788900; 531000, 3788800; 530600, 3788800; 530600, 3788900; 530500, 3788900; 530500, 3789100; 530600, 3789100; 530600, 3789200; 530800, 3789200; and 530800, 3789300.

(xxvi) Subunit 1y: Land bounded by the following UTM11 NAD27 coordinates (E, N): 530900, 3788600; 531500, 3788600; 531500, 3788300; 530900, 3788300; and 530900, 3788600.

(xxvii) Note: *Erigeron parishii* map follows.

BILLING CODE 4310–55–P



BILLING CODE 4310–55–C

* * * * *

Family Brassicaceae: *Lesquerella Kingii* ssp. *Bernardina* (San Bernardino Mountains Bladderpod)

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

(2) The primary constituent elements of critical habitat for *Lesquerella kingii* ssp. *bernardina* are those habitat components that are essential for the primary biological needs of the species. Based on our current knowledge of this species, the primary constituent elements of critical habitat for this species are listed below and consist of, but are not limited to:

(i) Soils derived primarily from Bonanza King Formation and Undivided Cambrian parent materials that occur on hillsides or on large rock outcrops at elevations between 2,098 and 2,700 m (6,883 and 8,800 ft);

(ii) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(iii) Associated plant communities that have areas with an open canopy cover and little accumulation of organic material (*e.g.*, leaf litter) on the surface of the soil.

(3) Existing features and structures, such as buildings, active mines, paved or unpaved roads, other paved or cleared areas, lawns, and other urban landscaped areas, are not likely to contain one or more of the primary constituent elements. Federal actions limited to those areas, therefore, would not trigger a section 7 consultation, unless they may affect the species or primary constituent elements in adjacent critical habitat.

(4) Bertha Ridge Unit, San Bernardino County, California.

(i) From USGS 1:24,000 quadrangle maps Fawnskin and Big Bear City, California.

(ii) Subunit 2a: Land bounded by the following UTM11 NAD27 coordinates (E, N): 510400, 3793600; 510700, 3793600; 510700, 3793500; 510800, 3793500; 510800, 3793400; 511000, 3793400; 511000, 3793100; 510900, 3793100; 510900, 3793000; 510600, 3793000; 510600, 3793100; 510500, 3793100; 510500, 3793200; 510400, 3793200; and 510400, 3793600.

(iii) Subunit 2b: Land bounded by the following UTM11 NAD27 coordinates (E, N): 511600, 3793900; 511900, 3793900; 511900, 3793800; 512000, 3793800; 512000, 3793700; 512300, 3793700; 512300, 3793600; 512400, 3793600; 512400, 3793300; 512300, 3793300; 512300, 3793200; 512100, 3793200; 512100, 3793300; 512000, 3793300; 512000, 3793200; 511600, 3793200; 511600, 3793500; 511500, 3793500; 511500, 3793800; 511600, 3793800; and 511600, 3793900.

(iv) Subunit 2c: Land bounded by the following UTM11 NAD27 coordinates (E, N): 511700, 3793100; 512000, 3793100; 512000, 3793000; 512200, 3793000; 512200, 3792700; 512100, 3792700; 512100, 3792500; 511900, 3792500; 511900, 3792300; 512600, 3792300; 512600, 3792100; 512400, 3792100; 512400, 3791400; 512100, 3791400; 512100, 3791500; 511900, 3791500; 511900, 3791400; 511700, 3791400; 511700, 3791300; 511600, 3791300; 511600, 3791200; 511200, 3791200; 511200, 3791400; 511100, 3791400; 511100, 3791500; 511200, 3791500; 511200, 3791600; 511300, 3791600; 511300, 3791700; 511600, 3791700; 511600, 3792300; 511500, 3792300; 511500, 3792500; 511600, 3792500; 511600, 3792600; 511700, 3792600; 511700, 3792700; 511600, 3792700; 511600, 3793000; 511700, 3793000; and 511700, 3793100.

(5) Sugarlump Ridge Unit, San Bernardino County, California.

(i) From USGS 1:24,000 quadrangle map Moonridge, California.

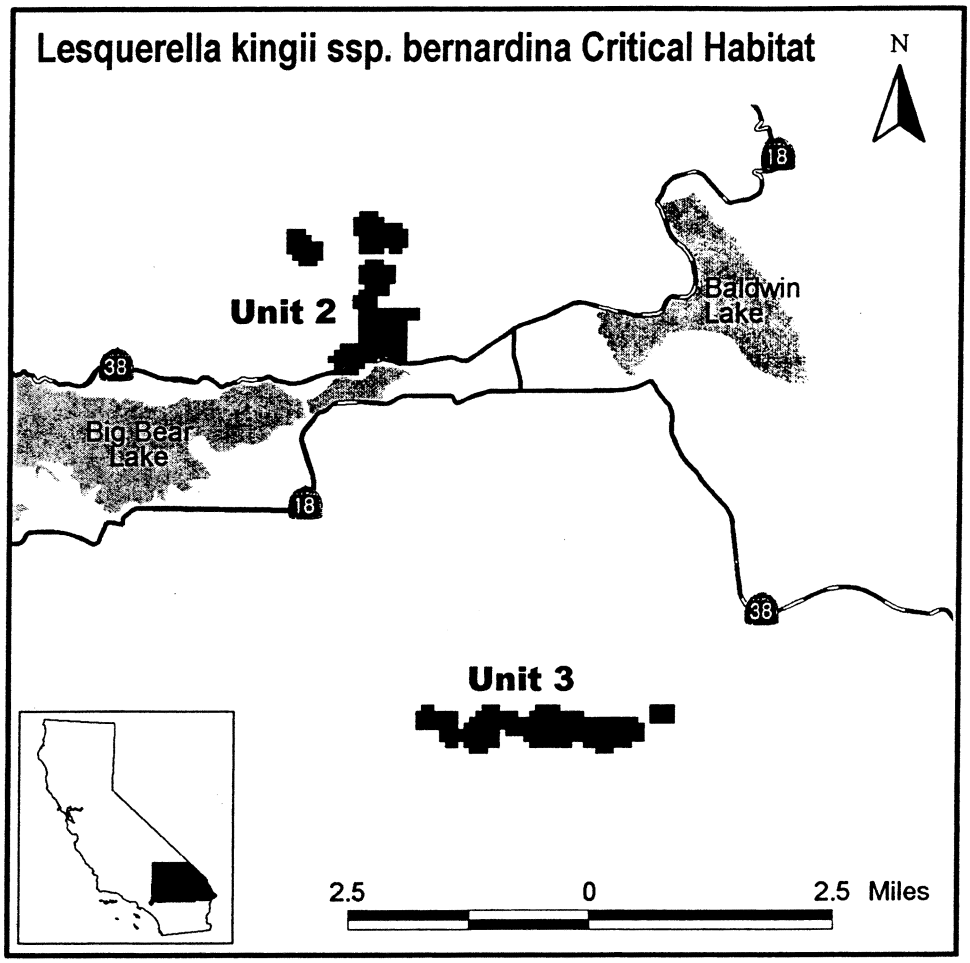
(ii) Subunit 3a: Land bounded by the following UTM11 NAD27 coordinates (E, N): 512700, 3785700; 512900, 3785700; 512900, 3785600; 513300, 3785600; 513300, 3785300; 513400, 3785300; 513400, 3785400; 513500, 3785400; 513500, 3785500; 513600, 3785500; 513600, 3785600; 513700, 3785600; 513700, 3785700; 514000, 3785700; 514000, 3785600; 514300, 3785600; 514300, 3785500; 514500, 3785500; 514500, 3785600; 514600, 3785600; 514600, 3785700; 515000, 3785700; 515000, 3785600; 515400, 3785600; 515400, 3785500; 516300, 3785500; 516300, 3785400; 516400,

3785400; 516400, 3785100; 516200, 3785100; 516200, 3785000; 515900, 3785000; 515900, 3784900; 515600, 3784900; 515600, 3785000; 515400, 3785000; 515400, 3785100; 515200, 3785100; 515200, 3785000; 514500, 3785000; 514500, 3785100; 514400, 3785100; 514400, 3785200; 514100, 3785200; 514100, 3785300; 514000, 3785300; 514000, 3785000; 513800, 3785000; 513800, 3784900; 513500, 3784900; 513500, 3785000; 513400, 3785000; 513400, 3785100; 513300, 3785100; 513300, 3785000; 513100, 3785000; 513100, 3785100; 513000, 3785100; 513000, 3785300; 512600, 3785300; 512600, 3785600; 512700, 3785600; and 512700, 3785700.

(iii) Subunit 3b: Land bounded by the following UTM11 NAD27 coordinates (E, N): 516500, 3785700; 516900, 3785700; 516900, 3785400; 516500, 3785400; and 516500, 3785700.

(iv) Note: *Lesquerella kingii* ssp. *bernardina* map follows:

BILLING CODE 4310–55–P



BILLING CODE 4310–55–C

* * * * *

Family Fabaceae: *Astragalus Albens* (Cushenbury Milk-Vetch)

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

(2) The primary constituent elements of critical habitat for *Astragalus albens* are those habitat components that are essential for the primary biological needs of the species. Based on our current knowledge of this species, the primary constituent elements of critical habitat for this species are listed below and consist of, but are not limited to:

(i) Soils derived primarily from the upper and middle members of the Bird Spring Formation and Undivided Cambrian parent materials that occur on hillsides or along rocky washes with limestone outwash/deposits at elevations between 1,171 and 2,013 m (3,864 and 6,604 ft);

(ii) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(iii) Associated plant communities that have areas with an open canopy cover and little accumulation of organic material (*e.g.*, leaf litter) on the surface of the soil.

(3) Existing features and structures, such as buildings, active mines, paved or unpaved roads, other paved or cleared areas, lawns, and other urban landscaped areas, are not likely to contain one or more of the primary constituent elements. Federal actions limited to those areas, therefore, would not trigger a section 7 consultation, unless they may affect the species or primary constituent elements in adjacent critical habitat.

(4) Northeastern Slope Unit, San Bernardino County, California.

(i) From USGS 1:24,000 quadrangle maps Fawnskin, Big Bear City, Rattlesnake Canyon, and Cougar Buttes, California.

(ii) Subunit 1a: Land bounded by the following UTM11 NAD27 coordinates (E, N): 503300, 3801900; 503600, 3801900; 503600, 3801700; 503700, 3801700; 503700, 3801600; 503800, 3801600; 503800, 3801500; 503900, 3801500; 503900, 3801200; 503800, 3801200; 503800, 3801100; 503900, 3801100; 503900, 3800900; 504000, 3800800; 504100, 3800800; 504100, 3800800; 504100, 3800500; 504000, 3800500; 504000, 3800300; 503900, 3800300; 503900, 3800200; 503500, 3800200; 503500, 3800300; 503400, 3800300; 503400, 3800400; 503300, 3800400; 503300, 3800600; 503200, 3800600; 503200, 3801800; 503300, 3801800; and 503300, 3801900.

(iii) Subunit 1b: Land bounded by the following UTM11 NAD27 coordinates (E, N): 507000, 3801600; 507400, 3801600; 507400, 3801300; 507500, 3801300; 507500, 3800900; 507600, 3800900; 507600, 3800500; 507500,

3800500; 507500, 3800400; 507400, 3800400; 507400, 3800300; 507300, 3800300; 507300, 3800200; 507200, 3800200; 507200, 3800100; 507100, 3800100; 507100, 3800200; 507000, 3800200; 507000, 3800500; 506800, 3800500; 506800, 3800600; 506700, 3800600; 506700, 3801100; 506900, 3801100; 506900, 3801000; 507100, 3801000; 507100, 3801300; 507000, 3801300; and 507000, 3801600.

(iv) Subunit 1c: Land bounded by the following UTM11 NAD27 coordinates (E, N): 513100, 3803700; 513600, 3803700; 513600, 3803100; 513500, 3803100; 513500, 3803000; 513400, 3803000; 513400, 3802900; 513300, 3802900; 513300, 3802800; 513100, 3802800; 513100, 3802900; 513000, 3802900; 513000, 3803000; 512900, 3803000; 512900, 3803400; 513000, 3803400; 513000, 3803500; 513100, 3803500; and 513100, 3803700.

(v) Subunit 1d: Land bounded by the following UTM11 NAD27 coordinates (E, N): 516000, 3803300; 516300, 3803300; 516300, 3803000; 516000, 3803000; and 516000, 3803300.

(vi) Subunit 1e: Land bounded by the following UTM11 NAD27 coordinates (E, N): 514800, 3802600; 515200, 3802600; 515200, 3802200; 515100, 3802200; 515100, 3801900; 515300, 3801900; 515300, 3802000; 515400, 3802000; 515400, 3801900; 515500, 3801900; 515500, 3801600; 515100, 3801600; 515100, 3801500; 514800, 3801500; 514800, 3801600; 514700, 3801600; 514700, 3801900; 514600, 3801900; 514600, 3802000; 514500, 3802000; 514500, 3802300; 514600, 3802300; 514600, 3802400; 514700, 3802400; 514700, 3802500; 514800, 3802500; and 514800, 3802600.

(vii) Subunit 1f: Land bounded by the following UTM11 NAD27 coordinates (E, N): 516000, 3802500; 516200, 3802500; 516200, 3802400; 516300, 3802400; 516300, 3802100; 516200, 3802100; 516200, 3801900; 515800, 3801900; 515800, 3801800; 515700, 3801800; 515700, 3801900; 515600, 3801900; 515600, 3802100; 515500, 3802100; 515500, 3802200; 515600, 3802200; 515600, 3802300; 515900, 3802300; 515900, 3802400; 516000, 3802400; and 516000, 3802500.

(viii) Subunit 1g: Land bounded by the following UTM11 NAD27 coordinates (E, N): 513700, 3800000; 514100, 3800000; 514100, 3799900; 514300, 3799900; 514300, 3799800; 514700, 3799800; 514700, 3799500; 514800, 3799500; 514800, 3799600; 515000, 3799600; 515000, 3799500; 515100, 3799500; 515100, 3799200; 515000, 3799200; 515000, 3799100; 514800, 3799100; 514800, 3799200; 514700, 3799200; 514700, 3799300; 514600, 3799300; 514600, 3799400; 514500, 3799400; 514500, 3799300; 514100, 3799300; 514100, 3799500; 514000, 3799500; 514000, 3799400; 513800, 3799400; 513800, 3799500; 513700, 3799500; and 513700, 3800000.

(ix) Subunit 1h: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515200, 3801300; 515500, 3801300; 515500, 3801200; 515600, 3801200; 515600, 3800800; 515500, 3800800; 515500, 3800700; 515400, 3800700; 515400, 3800400; 515300, 3800400; 515300, 3800300; 515400, 3800300; 515400, 3800200; 515500, 3800200; 515500, 3799600; 515600, 3799600; 515600, 3799500; 515900, 3799500; 515900, 3799400; 516300, 3799400; 516300, 3799200; 516500, 3799200; 516500, 3799000; 516700, 3799000; 516700, 3799600; 517100, 3799600; 517100, 3799400; 517200, 3799400; 517200, 3799300; 517100, 3799300; 517100, 3799200; 517200, 3799200; 517200, 3798900; 517100, 3798900; 517100, 3798600; 516500, 3798600; 516500, 3798900; 516400, 3798900; 516400, 3798800; 516200, 3798800; 516200, 3798900; 515400, 3798900; 515400, 3799000; 515300, 3799000; 515300, 3799100; 515200, 3799100; 515200, 3799600; 515100, 3799600; 515100, 3799700; 515000, 3799700; 515000, 3800100; 514900, 3800100; 514900, 3800800; 514800, 3800800; 514800, 3800700; 514600, 3800700; 514600, 3800800; 514500, 3800800; 514500, 3801000; 514600, 3801000; 514600, 3801100; 514800, 3801100; 514800, 3801000; 514900, 3801000; 514900, 3801100; 515100, 3801100; 515100, 3801200; 515200, 3801200; and 515200, 3801300.

(x) Subunit 1i: Land bounded by the following UTM11 NAD27 coordinates (E, N): 517200, 3802800; 517700, 3802800; 517700, 3802400; 517600, 3802400; 517600, 3802100; 517500, 3802100; 517500, 3802000; 517400, 3802000; 517400, 3801900; 517200, 3801900; 517200, 3802000; 517100, 3802000; 517100, 3802700; 517200, 3802700; and 517200, 3802800.

(xi) Subunit 1j: Land bounded by the following UTM11 NAD27 coordinates (E, N): 517800, 3802200; 518200, 3802200; 518200, 3801900; 518100, 3801900; 518100, 3801800; 517800, 3801800; and 517800, 3802200.

(xii) Subunit 1k: Land bounded by the following UTM11 NAD27 coordinates (E, N): 517700, 3801500; 518300, 3801500; 518300, 3801200; 518200, 3801200; 518200, 3801100; 518100, 3801100; 518100, 3801000; 518000, 3801000; 518000, 3800900; 517900, 3800900; 517900, 3800800; 517800, 3800800; 517800, 3800600; 517700, 3800600; 517700, 3800500; 517800, 3800500; 517800, 3800000; 517700, 3800000; 517700, 3799900; 517300, 3799900; 517300, 3800000; 517200, 3800000; 517200, 3799900; 516800, 3799900; 516800, 3800000; 516700, 3800000; 516700, 3800200; 517100, 3800200; 517100, 3800900; 517200, 3800900; 517200, 3801000; 517400, 3801000; 517400, 3801200; 517500, 3801200; 517500, 3801400; 517700, 3801400; and 517700, 3801500.

(xiii) Subunit 1l: Land bounded by the following UTM11 NAD27 coordinates (E, N): 517800, 3799800; 518600, 3799800; 518600, 3799500; 518500, 3799500; 518500, 3799400; 518400, 3799400; 518400, 3799300; 518200, 3799300; 518200, 3799100; 517900, 3799100; 517900, 3798700; 517500, 3798700; 517500, 3798900; 517400, 3798900; 517400, 3799600; 517700, 3799600; 517700, 3799700; 517800, 3799700; and 517800, 3799800.

(xiv) Subunit 1m: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520200, 3801000; 520600, 3801000; 520600, 3800700; 520500, 3800700; 520500, 3800600; 520600, 3800600; 520600, 3800500; 520800, 3800500; 520800, 3800400; 520900, 3800400; 520900, 3800300; 521100, 3800300; 521100, 3800200; 521200, 3800200; 521200, 3800000; 521100, 3800000; 521100, 3799900; 520800, 3799900; 520800, 3800100; 520300, 3800100; 520300, 3800200; 520200, 3800200; 520200, 3800300; 520100, 3800300; 520100, 3800200; 519800, 3800200; 519800, 3800700; 520100, 3800700; 520100, 3800600; 520200, 3800600; and 520200, 3801000.

(xv) Subunit 1n: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519300, 3799300; 519600, 3799300; 519600, 3798900; 519300, 3798900; 519300, 3799000; 519200, 3799000; 519200, 3799200; 519300, 3799200; and 519300, 3799300.

(xvi) Subunit 1o: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520100, 3800000; 520400, 3800000; 520400, 3799900; 520500, 3799900; 520500, 3799700; 520400, 3799700; 520400, 3799600; 520000, 3799600; 520000, 3799500; 520100, 3799500; 520100, 3799400; 520200, 3799400; 520200, 3799300; 520300, 3799300; 520300, 3799400; 520600, 3799400; 520600, 3799100; 520300, 3799100; 520300, 3799200; 520100, 3799200; 520100, 3799000; 520200, 3799000; 520200, 3798900; 520300, 3798900; 520300, 3798800; 520700, 3798800; 520700, 3798700; 521500, 3798700; 521500, 3798800; 521400, 3798800; 521400, 3799000; 521300, 3799000; 521300, 3799100; 521200, 3799100; 521200, 3799200; 521500, 3799200; 521500, 3799300; 521800, 3799300; 521800, 3798600; 521600, 3798600; 521600, 3798500; 521500, 3798500; 521500, 3797900; 521100, 3797900; 521100, 3798000; 521000, 3798000; 521000, 3797900; 520900, 3797900; 520900, 3797800; 520600, 3797800; 520600, 3797900; 520500, 3797900; 520500, 3798000; 520300, 3798000; 520300, 3798300; 520200, 3798300; 520200, 3798200; 519900, 3798200; 519900, 3798300; 519800, 3798300; 519800, 3798400; 519700, 3798400; 519700, 3799000; 519800, 3799000; 519800, 3799100; 519700, 3799100; 519700, 3799600; 519900, 3799600; 519900, 3799900; 520100, 3799900; and 520100, 3800000.

(xvii) Subunit 1p: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521900, 3799000; 522200, 3799000; 522200, 3798600; 521900, 3798600; and 521900, 3799000.

(xviii) Subunit 1q: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520100, 3797900; 520300, 3797900; 520300, 3797800; 520400, 3797800; 520400, 3797600; 520300, 3797600; 520300, 3797000; 520200, 3797000; 520200, 3796900; 519900, 3796900; 519900, 3797000; 519600, 3797000; 519600, 3796900; 519500, 3796900; 519500, 3796800; 519400, 3796800; 519400, 3796700; 519600, 3796700; 519600, 3796600; 519700, 3796600; 519700, 3795900; 519800, 3795900; 519800, 3795800; 519900, 3795800; 519900, 3795700; 520100, 3795700; 520100, 3795600; 520200, 3795600; 520200, 3795500; 520300, 3795500; 520300, 3795400; 520400, 3795400; 520400, 3795300; 520600, 3795300; 520600, 3795200; 520800, 3795200; 520800, 3795100; 520900, 3795100; 520900, 3795000; 521000, 3795000; 521000, 3794800; 521100, 3794800; 521100, 3794700; 521200, 3794700; 521200, 3794600; 521300, 3794600; 521300, 3794400; 521600, 3794400; 521600, 3794300; 521700, 3794300; 521700, 3793900; 521600, 3793900; 521600, 3793800; 521200, 3793800; 521200, 3793900; 521100, 3793900; 521100, 3794000; 521000, 3794000; 521000, 3794100; 520900, 3794100; 520900, 3794200; 520800, 3794200; 520800, 3794300; 520700, 3794300; 520700, 3794400; 520500, 3794400; 520500, 3794500; 520400, 3794500; 520400, 3794600; 520300, 3794600; 520300, 3794700; 520200, 3794700; 520200, 3794800; 520100, 3794800; 520100, 3794900; 520000, 3794900; 520000, 3795000; 519900, 3795000; 519900, 3795100; 519800, 3795100; 519800, 3795200; 519700, 3795200; 519700, 3795300; 519500, 3795300; 519500, 3795400; 519400, 3795400; 519400, 3795300; 519300,

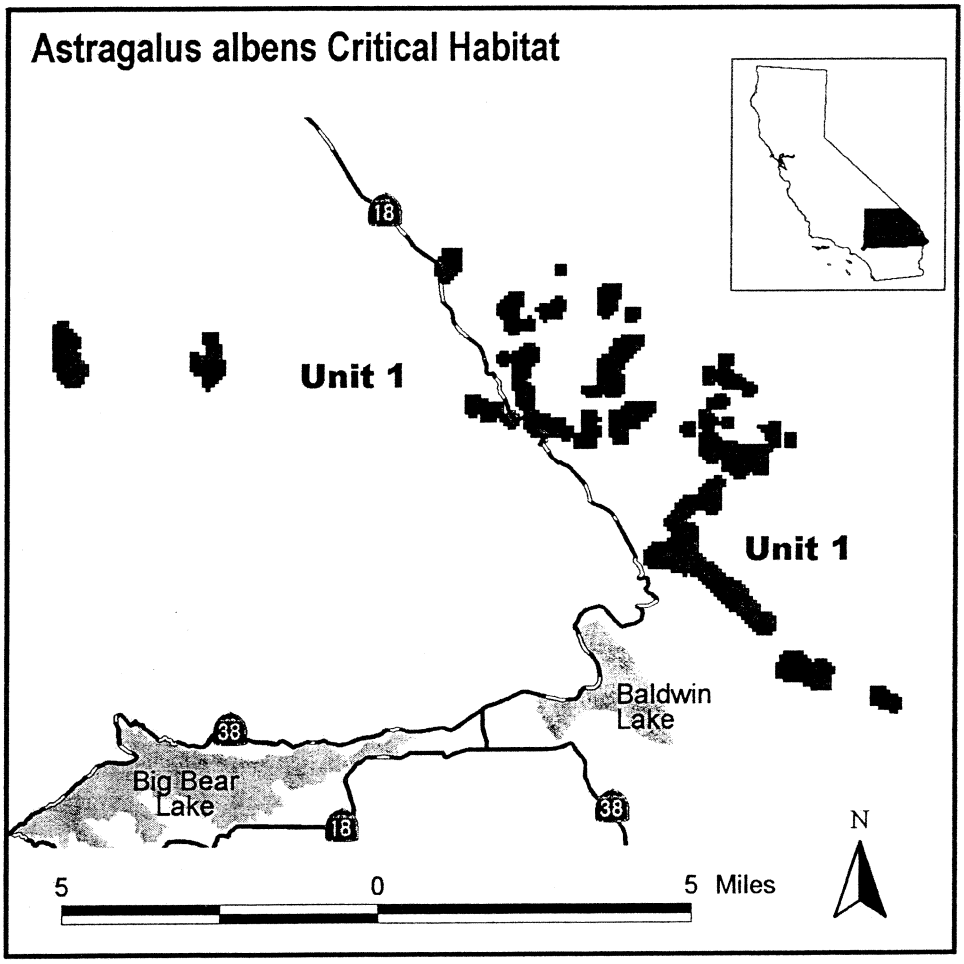
3795300; 519300, 3795400; 519000, 3795400; 519000, 3795500; 518400, 3795500; 518400, 3795600; 518300, 3795600; 518300, 3796000; 518400, 3796000; 518400, 3796100; 518500, 3796100; 518500, 3796200; 518900, 3796200; 518900, 3796300; 519000, 3796300; 519000, 3796500; 518900, 3796500; 518900, 3796600; 518800, 3796600; 518800, 3796800; 518900, 3796800; 518900, 3796900; 519000, 3796900; 519000, 3797000; 519100, 3797000; 519100, 3797200; 519200, 3797200; 519200, 3797300; 519300, 3797300; 519300, 3797400; 519700, 3797400; 519700, 3797600; 519800, 3797600; 519800, 3797700; 519900, 3797700; 519900, 3797800; 520100, 3797800; and 520100, 3797900.

(xix) Subunit 1r: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521900, 3793400; 522400, 3793400; 522400, 3793300; 522500, 3793300; 522500, 3793200; 522600, 3793200; 522600, 3793100; 522700, 3793100; 522700, 3793200; 523000, 3793200; 523000, 3793100; 523100, 3793100; 523100, 3793000; 523200, 3793000; 523200, 3792800; 523100, 3792800; 523100, 3792400; 522600, 3792400; 522600, 3792500; 522400, 3792500; 522400, 3792600; 521900, 3792600; 521900, 3792700; 521700, 3792700; 521700, 3793100; 521800, 3793100; 521800, 3793300; 521900, 3793300; and 521900, 3793400.

(xx) Subunit 1s: Land bounded by the following UTM11 NAD27 coordinates (E, N): 524100, 3792500; 524500, 3792500; 524500, 3792400; 524600, 3792400; 524600, 3792300; 524800, 3792300; 524800, 3792200; 524900, 3792200; 524900, 3791900; 524800, 3791900; 524800, 3791800; 524600, 3791800; 524600, 3791900; 524300, 3791900; 524300, 3792000; 524100, 3792000; and 524100, 3792500.

(xxi) Note: *Astragalus albens* map follows:

BILLING CODE 4310–55–P



BILLING CODE 4310–55–C

* * * * *

Family Polgonaceae: *Eriogonum Ovalifolium* var. *Vineum* (Cushenbury Buckwheat)

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

(2) The primary constituent elements of critical habitat for *Eriogonum ovalifolium* var. *vineum* are those habitat components that are essential for the primary biological needs of the species. Based on our current knowledge of this species, the primary constituent elements of critical habitat for this species are listed below and consist of, but are not limited to:

(i) Soils derived primarily from the upper and middle members of the Bird Spring Formation and Bonanza King Formation parent materials that occur on hillsides at elevations between 1,400 and 2,400 m (4,600 and 7,900 ft);

(ii) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(iii) Associated plant communities that have areas with an open canopy cover (generally less than 15 percent cover) and little accumulation of organic material (*e.g.*, leaf litter) on the surface of the soil.

(3) Existing features and structures, such as buildings, active mines, paved or unpaved roads, other paved or cleared areas, lawns, and other urban landscaped areas, are not likely to contain one or more of the primary constituent elements. Federal actions limited to those areas, therefore, would not trigger a section 7 consultation, unless they may affect the species or primary constituent elements in adjacent critical habitat.

(4) Northeastern Slope Unit, San Bernardino County, California.

(i) From USGS 1:24,000 quadrangle maps Fawnskin, Big Bear City, Rattlesnake Canyon, Butler Peak, and Onyx Peak, California.

(ii) Subunit 1a: Land bounded by the following UTM11 NAD27 coordinates (E, N): 497000, 3803000; 497200, 3803000; 497200, 3802900; 497300, 3802900; 497300, 3802500; 497000, 3802500; 497000, 3802600; 496900,

3802600; 496900, 3802900; 497000, 3802900; and 497000, 3803000.

(iii) Subunit 1b: Land bounded by the following UTM11 NAD27 coordinates (E, N): 498000, 3800800; 498600, 3800800; 498600, 3800400; 498200, 3800400; 498200, 3800500; 498000, 3800500; and 498000, 3800800.

(iv) Subunit 1c: Land bounded by the following UTM11 NAD27 coordinates (E, N): 503400, 3801200; 503700, 3801200; 503700, 3801100; 503900, 3801100; 503900, 3800800; 504000, 3800800; 504000, 3800400; 503900, 3800400; 503900, 3800300; 503700, 3800300; 503700, 3800400; 503400, 3800400; 503400, 3800600; 503300, 3800600; 503300, 3800700; 503200, 3800700; 503200, 3801000; 503300, 3801000; 503300, 3801100; 503400, 3801100; and 503400, 3801200.

(v) Subunit 1d: Land bounded by the following UTM11 NAD27 coordinates (E, N): 505200, 3800400; 505500, 3800400; 505500, 3800300; 506000, 3800300; 506000, 3800200; 506100, 3800200; 506100, 3799900; 506000, 3799900; 506000, 3800000; 505700, 3800000; 505700, 3799900; 505600, 3799900; 505600, 3799600; 505200, 3799600; 505200, 3800100; 505100, 3800100; 505100, 3800300; 505200, 3800300; and 505200, 3800400.

(vi) Subunit 1e: Land bounded by the following UTM11 NAD27 coordinates (E, N): 506800, 3799900; 507000, 3799900; 507000, 3799800; 507100, 3799800; 507100, 3799600; 506900, 3799600; 506900, 3799200; 507200, 3799200; 507200, 3799300; 507500, 3799300; 507500, 3799200; 507600, 3799200; 507600, 3799000; 507500, 3799000; 507500, 3798900; 507400, 3798900; 507400, 3798700; 507300, 3798700; 507300, 3798600; 506800, 3798600; 506800, 3798800; 506200, 3798800; 506200, 3799200; 506500, 3799200; 506500, 3799300; 506600, 3799300; 506600, 3799500; 506700, 3799500; 506700, 3799800; 506800, 3799800; and 506800, 3799900.

(vii) Subunit 1f: Land bounded by the following UTM11 NAD27 coordinates (E, N): 506800, 3798100; 507000, 3798100; 507000, 3798000; 507500, 3798000; 507500, 3797700; 507600, 3797700; 507600, 3797400; 507500, 3797400; 507500, 3797300; 507400, 3797300; 507400, 3797200; 507000, 3797200; 507000, 3797300; 506800, 3797300; 506800, 3797600; 506700, 3797600; 506700, 3798000; 506800, 3798000; and 506800, 3798100.

(viii) Subunit 1g: Land bounded by the following UTM11 NAD27 coordinates (E, N): 508100, 3798200; 508300, 3798200; 508300, 3798100; 508400, 3798100; 508400, 3797900; 508300, 3797900; 508300, 3797800; 508000, 3797800; 508000, 3798100; 508100, 3798100; and 508100, 3798200.

(ix) Subunit 1h: Land bounded by the following UTM11 NAD27 coordinates (E, N): 507900, 3797600; 508400, 3797600; 508400, 3797200; 508300, 3797200; 508300, 3797100; 508200, 3797100; 508200, 3796800; 507800, 3796800; 507800, 3797100; 507700, 3797100; 507700, 3797500; 507900, 3797500; and 507900, 3797600.

(x) Subunit 1i: Land bounded by the following UTM11 NAD27 coordinates (E, N): 508400, 3797200; 508700, 3797200; 508700, 3796900; 508400, 3796900; and 508400, 3797200.

(xi) Subunit 1j: Land bounded by the following UTM11 NAD27 coordinates (E, N): 508300, 3800600; 508600, 3800600; 508600, 3800500; 508700, 3800500; 508700, 3800200; 508600, 3800200; 508600, 3800100; 508100, 3800100; 508100, 3800500; 508300, 3800500; and 508300, 3800600.

(xii) Subunit 1k: Land bounded by the following UTM11 NAD27 coordinates (E, N): 508100, 3799800; 508500, 3799800; 508500, 3799400; 508400, 3799400; 508400, 3799300; 508200, 3799300; 508200, 3799400; 508000, 3799400; 508000, 3799700; 508100, 3799700; and 508100, 3799800.

(xiii) Subunit 1l: Land bounded by the following UTM11 NAD27 coordinates (E, N): 508700, 3799400; 509200, 3799400; 509200, 3799100; 509100, 3799100; 509100, 3798900; 508700, 3798900; and 508700, 3799400.

(xiv) Subunit 1m: Land bounded by the following UTM11 NAD27 coordinates (E, N): 509400, 3800700; 509700, 3800700; 509700, 3800600; 509800, 3800600; 509800, 3800500; 510300, 3800500; 510300, 3800400; 510400, 3800400; 510400, 3800300; 510600, 3800300; 510600, 3800100; 510200, 3800100; 510200, 3800300; 510100, 3800300; 510100, 3800400; 509900, 3800400; 509900, 3800200; 509500, 3800200; 509500, 3800100; 509200, 3800100; 509200, 3800300; 509100, 3800300; 509100, 3800500; 509200, 3800500; 509200, 3800600; 509400, 3800600; and 509400, 3800700.

(xv) Subunit 1n: Land bounded by the following UTM11 NAD27 coordinates (E, N): 510500, 3801200; 510700, 3801200; 510700, 3800900; 510500, 3800900; 510500, 3800800; 510400, 3800800; 510400, 3800700; 510600, 3800700; 510600, 3800600; 510300, 3800600; 510300, 3800700; 510200, 3800700; 510200, 3800800; 510300, 3800800; 510300, 3801000; 510400, 3801000; 510400, 3801100; 510500, 3801100; and 510500, 3801200.

(xvi) Subunit 1o: Land bounded by the following UTM11 NAD27 coordinates (E, N): 510900, 3800700; 511300, 3800700; 511300, 3800500; 510900, 3800500; and 510900, 3800700.

(xvii) Subunit 1p: Land bounded by the following UTM11 NAD27 coordinates (E, N): 511900, 3801000; 512200, 3801000; 512200, 3800800; 512300, 3800800; 512300, 3800700; 512500, 3800700; 512500, 3800600; 512700, 3800600; 512700, 3800800; 513000, 3800800; 513000, 3800300; 512900, 3800300; 512900, 3800100; 512800, 3800100; 512800, 3799900; 512900, 3799900; 512900, 3799800; 513000, 3799800; 513000, 3799700; 513100, 3799700; 513100, 3799500; 513000, 3799500; 513000, 3799400; 512700, 3799400; 512700, 3799500; 512500, 3799500; 512500, 3799600; 512300, 3799600; 512300, 3799700; 512200, 3799700; 512200, 3799800; 512100, 3799800; 512100, 3799600; 512200, 3799600; 512200, 3799500; 512300, 3799500; 512300, 3799200; 511800, 3799200; 511800, 3799500; 511700, 3799500; 511700, 3799400; 511400, 3799400; 511400, 3799500; 511300, 3799500; 511300, 3799600; 511200, 3799600; 511200, 3799700; 511100, 3799700; 511100, 3799800; 511000, 3799800; 511000, 3800100; 511200, 3800100; 511200, 3800000; 511300, 3800000; 511300, 3799900; 511700, 3799900; 511700, 3799800; 511800, 3799800; 511800, 3799900; 512000, 3799900; 512000, 3800100; 511900, 3800100; 511900, 3800500; 512000, 3800500; 512000, 3800700; 511900, 3800700; and 511900, 3801000.

(xviii) Subunit 1q: Land bounded by the following UTM11 NAD27 coordinates (E, N): 513200, 3800300; 513500, 3800300; 513500, 3800200; 513900, 3800200; 513900, 3800100; 514000, 3800100; 514000, 3800000; 514100, 3800000; 514100, 3799900; 514200, 3799900; 514200, 3800000; 514600, 3800000; 514600, 3799800; 514500, 3799800; 514500, 3799300; 514100, 3799300; 514100, 3799600; 514000, 3799600; 514000, 3799400; 513700, 3799400; 513700, 3799500; 513500, 3799500; 513500, 3799400; 513600, 3799400; 513600, 3799300; 513900, 3799300; 513900, 3799200; 514000, 3799200; 514000, 3798900; 513600, 3798900; 513600, 3798800; 513500, 3798800; 513500, 3798700; 513300, 3798700; 513300, 3798800; 513200, 3798800; 513200, 3799000; 513100, 3799000; 513100, 3799500; 513200, 3799500; 513200, 3799800; 513400, 3799800; 513400, 3799900; 513100, 3799900; 513100, 3800200; 513200, 3800200; and 513200, 3800300.

(xix) Subunit 1r: Land bounded by the following UTM11 NAD27 coordinates (E, N): 514200, 3800800; 514500, 3800800; 514500, 3800500; 514200, 3800500; and 514200, 3800800.

(xx) Subunit 1s: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515500, 3802100; 515900, 3802100; 515900, 3801900; 516000, 3801900; 516000, 3801800; 516100, 3801800; 516100, 3801600; 516000, 3801600; 516000, 3801500; 516500, 3801500; 516500, 3801200; 516400, 3801200; 516400, 3801100; 516200, 3801100; 516200, 3800900; 516100, 3800900; 516100, 3800800; 516000, 3800800; 516000, 3800700; 515800, 3800700; 515800, 3800600; 516200, 3800600; 516200, 3800700; 516500, 3800700; 516500, 3799800; 516400, 3799800; 516400, 3799700; 516300, 3799700; 516300, 3799800; 516100, 3799800; 516100, 3799900; 515800, 3799900; 515800, 3799800; 515600, 3799800; 515600, 3799700; 515300, 3799700; 515300, 3799800; 515000, 3799800; 515000, 3799900; 514900, 3799900; 514900, 3800100; 515000, 3800100; 515000, 3800200; 515300, 3800200; 515300, 3800100; 515400, 3800100; 515400, 3800200; 515500, 3800200; 515500, 3800300; 515600, 3800300; 515600, 3800200; 515800, 3800200; 515800, 3800300; 515700, 3800300; 515700, 3800600; 515600, 3800600; 515600, 3800800; 515100, 3800800; 515100, 3800700; 515200, 3800700; 515200, 3800400; 515100, 3800400; 515100, 3800300; 514700, 3800300; 514700, 3800400; 514600, 3800400; 514600, 3800800; 514500, 3800800; 514500, 3800900; 514400, 3800900; 514400, 3801100; 514500, 3801100; 514500, 3801200; 514600, 3801200; 514600, 3801300; 514800, 3801300; 514800, 3801400; 515200, 3801400; 515200, 3801300; 515700, 3801300; 515700, 3801500; 515600, 3801500; 515600, 3801600; 515500, 3801600; 515500, 3801700; 515400, 3801700; 515400, 3802000; 515500, 3802000; and 515500, 3802100.

(xxi) Subunit 1t: Land bounded by the following UTM11 NAD27 coordinates (E, N): 514800, 3799600; 515000, 3799600; 515000, 3799500; 515100, 3799500; 515100, 3799200; 515000, 3799200; 515000, 3799100; 514800, 3799100; 514800, 3799200; 514700, 3799200; 514700, 3799300; 514600, 3799300; 514600, 3799400; 514700, 3799400; 514700, 3799500; 514800, 3799500; and 514800, 3799600.

(xxii) Subunit 1u: Land bounded by the following UTM11 NAD27 coordinates (E, N): 516700, 3799700; 516900, 3799700; 516900, 3799600; 517100, 3799600; 517100, 3799500; 517200, 3799500; 517200, 3799000; 517300, 3799000; 517300, 3798700; 516800, 3798700;

516800, 3798600; 516400, 3798600; 516400, 3798700; 516300, 3798700; 516300, 3798600; 516100, 3798600; 516100, 3798700; 516000, 3798700; 516000, 3798800; 515900, 3798800; 515900, 3798900; 515700, 3798900; 515700, 3799000; 515400, 3799000; 515400, 3799100; 515300, 3799100; 515300, 3799500; 516000, 3799500; 516000, 3799400; 516300, 3799400; 516300, 3799300; 516400, 3799300; 516400, 3799600; 516700, 3799600; and 516700, 3799700.

(xxiii) Subunit 1v: Land bounded by the following UTM11 NAD27 coordinates (E, N): 516700, 3800500; 517100, 3800500; 517100, 3800300; 517200, 3800300; 517200, 3800000; 517100, 3800000; 517100, 3799900; 516700, 3799900; 516700, 3800000; 516600, 3800000; 516600, 3800400; 516700, 3800400; and 516700, 3800500.

(xxiv) Subunit 1w: Land bounded by the following UTM11 NAD27 coordinates (E, N): 518600, 3799900; 519100, 3799900; 519100, 3799600; 519000, 3799600; 519000, 3799500; 518700, 3799500; 518700, 3799400; 518500, 3799400; 518500, 3799200; 518400, 3799200; 518400, 3799100; 518300, 3799100; 518300, 3799000; 518200, 3799000; 518200, 3799100; 517900, 3799100; 517900, 3798900; 517800, 3798900; 517800, 3798800; 517600, 3798800; 517600, 3798900; 517500, 3798900; 517500, 3799000; 517400, 3799000; 517400, 3799300; 517300, 3799300; 517300, 3799700; 517500, 3799700; 517500, 3799800; 518100, 3799800; 518100, 3799700; 518400, 3799700; 518400, 3799800; 518600, 3799800; and 518600, 3799900.

(xxv) Subunit 1x: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515400, 3797400; 515800, 3797400; 515800, 3797300; 516300, 3797300; 516300, 3797200; 516400, 3797200; 516400, 3796900; 515500, 3796900; 515500, 3797000; 515400, 3797000; and 515400, 3797400.

(xxvi) Subunit 1y: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519100, 3797200; 519400, 3797200; 519400, 3797100; 519500, 3797100; 519500, 3796900; 519700, 3796900; 519700, 3796000; 519600, 3796000; 519600, 3795900; 519500, 3795900; 519500, 3795700; 519100, 3795700; 519100, 3796100; 519000, 3796100; 519000, 3796300; 518900, 3796300; 518900, 3796600; 518800, 3796600; 518800, 3796800; 518900, 3796800; 518900, 3797000; 519000, 3797000; 519000, 3797100; 519100, 3797100; and 519100, 3797200.

(xxvii) Subunit 1z: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519600, 3797600; 519800, 3797600; 519800, 3797500; 520300, 3797500; 520300, 3797100; 520200, 3797100; 520200, 3797000; 519800, 3797000; 519800, 3797100; 519700, 3797100; 519700, 3797200; 519500, 3797200; 519500, 3797500; 519600, 3797500; and 519600, 3797600.

(xxviii) Subunit 1aa: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519700, 3800600; 520200, 3800600; 520200, 3800200; 520100, 3800200; 520100, 3800100; 519700, 3800100; and 519700, 3800600.

(xxix) Subunit 1ab: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520000, 3800000; 520700, 3800000; 520700, 3799900; 520800, 3799900; 520800, 3799500; 520400, 3799500; 520400, 3799600; 519900, 3799600; 519900, 3799900; 520000, 3799900; and 520000, 3800000.

(xxx) Subunit 1ac: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521000, 3800000; 521500, 3800000; 521500, 3799700; 521400, 3799700; 521400, 3799500; 520900, 3799500; 520900, 3799800; 521000, 3799800; and 521000, 3800000.

(xxxi) Subunit 1ad: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520000, 3799400; 520500, 3799400; 520500, 3799300; 520600, 3799300; 520600, 3799100; 520300, 3799100; 520300, 3799200; 520200, 3799200; 520200, 3799100; 520000, 3799100; 520000, 3799000; 520200, 3799000; 520200, 3798800; 520100, 3798800; 520100, 3798700; 519700, 3798700; 519700, 3799100; 519900, 3799100; 519900, 3799300; 520000, 3799300; and 520000, 3799400.

(xxxii) Subunit 1ae: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521400, 3799000; 522000, 3799000; 522000, 3798600; 521600, 3798600; 521600, 3798500; 521500, 3798500; 521500, 3798400; 521300, 3798400; 521300, 3798300; 521200, 3798300; 521200, 3798200; 520900, 3798200; 520900, 3798300; 520700, 3798300; 520700, 3798000; 520300, 3798000; 520300, 3798300; 520400, 3798300; 520400, 3798400; 520600, 3798400; 520600, 3798500; 520400, 3798500; 520400, 3798700; 520500, 3798700; 520500, 3798800; 520700, 3798800; 520700, 3798700; 520800, 3798700; 520800, 3798800; 521100, 3798800; 521100, 3798700; 521400, 3798700; 521400, 3798800; 521300, 3798800; 521300, 3798900; 521400, 3798900; and 521400, 3799000.

(xxxiii) Subunit 1af: Land bounded by the following UTM11 NAD27 coordinates (E, N): 519800, 3794600; 520100, 3794600; 520100, 3794200; 519800, 3794200; and 519800, 3794600.

(xxxiv) Subunit 1ag: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520400, 3794200; 521100, 3794200; 521100, 3793900; 521000, 3793900; 521000, 3793800; 520700, 3793800; 520700, 3793700; 520400, 3793700; 520400, 3793800; 520300, 3793800; 520300, 3793700; 520000, 3793700; 520000, 3793800; 519900, 3793800; 519900, 3794000; 520000, 3794000; 520000, 3794100; 520400, 3794100; and 520400, 3794200.

(xxxv) Subunit 1ah: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521600, 3794700; 521800, 3794700; 521800, 3794600; 521900, 3794600; 521900, 3794300; 521800, 3794300; 521800, 3794200; 521400, 3794200; 521400, 3794500; 521500, 3794500; 521500, 3794600; 521600, 3794600; and 521600, 3794700.

(xxxvi) Subunit 1ai: Land bounded by the following UTM11 NAD27 coordinates (E, N): 521300, 3793300; 521700, 3793300; 521700, 3793200; 521800, 3793200; 521800, 3793000; 521900, 3793000; 521900, 3793100; 522400, 3793100; 522400, 3793000; 522600, 3793000; 522600, 3792900; 522800, 3792900; 522800, 3792800; 523000, 3792800; 523000, 3792500; 523100, 3792500; 523100, 3792400; 523400, 3792400; 523400, 3792300; 523500, 3792300; 523500, 3791900; 523400, 3791900; 523400, 3791800; 523200, 3791800; 523200, 3791900; 523100, 3791900; 523100, 3792000; 522800, 3792000; 522800, 3792100; 522700, 3792100; 522700, 3792200; 522400, 3792200; 522400, 3792300; 522200, 3792300; 522200, 3792400; 522000, 3792400; 522000, 3792600; 521900, 3792600; 521900, 3792500; 521800, 3792500; 521800, 3792600; 521700, 3792600; 521700, 3792700; 521400, 3792700; 521400, 3792900; 521200, 3792900; 521200, 3793200; 521300, 3793200; and 521300, 3793300.

(xxxvii) Subunit 1aj: Land bounded by the following UTM11 NAD27 coordinates (E, N): 524100, 3792500; 524300, 3792500; 524300, 3792400; 524500, 3792400; 524500, 3792300; 524700, 3792300; 524700, 3792200; 524800, 3792200; 524800, 3792100; 524900, 3792100; 524900, 3792200; 525300, 3792200; 525300, 3792100; 525400, 3792100; 525400, 3791800; 525300, 3791800; 525300, 3791600; 525500, 3791600; 525500, 3791500; 525600, 3791500; 525600, 3791300; 525700, 3791300; 525700, 3791200; 525800, 3791200; 525800, 3791500; 526200, 3791500; 526200, 3791300; 526300, 3791300; 526300, 3791200; 526500, 3791200; 526500, 3791100; 526700, 3791100; 526700, 3791000; 526800, 3791000; 526800, 3791100; 527100, 3791100; 527100, 3791000; 527200, 3791000; 527200, 3790900; 527400, 3790900; 527400, 3790600; 527500, 3790600; 527500, 3790100; 527000, 3790100; 527000, 3790200; 526900, 3790200; 526900, 3790400; 526600, 3790400; 526600, 3790500; 526500, 3790500; 526500, 3790200; 526400, 3790200; 526400, 3790100; 526300, 3790100; 526300, 3790000; 526000, 3790000; 526000, 3790500; 525700, 3790500; 525700, 3790400; 525600, 3790400; 525600, 3790500; 525500, 3790500; 525500, 3790600; 525400, 3790600; 525400, 3790700; 525300, 3790700; 525300, 3791000; 525100, 3791000; 525100, 3791200; 524800, 3791200; 524800, 3791300; 524700, 3791300; 524700, 3791200; 524300, 3791200; 524300, 3791300; 524200, 3791300; 524200, 3791400; 524000, 3791400; 524000, 3791500; 523800, 3791500; 523800, 3791900; 524200, 3791900; 524200, 3792100; 524000, 3792100; 524000, 3792400; 524100, 3792400; and 524100, 3792500; excluding land bounded by 525900, 3791100; 525900, 3790900; 526000, 3790900; 526000, 3791100; and 525900, 3791100.

(xxxviii) Subunit 1ak: Land bounded by the following UTM11 NAD27 coordinates (E, N): 527600, 3790400; 527900, 3790400; 527900, 3790300; 528000, 3790300; 528000, 3790100; 527900, 3790100; 527900, 3790000; 527600, 3790000; and 527600, 3790400.

(xxxix) Subunit 1al: Land bounded by the following UTM11 NAD27 coordinates (E, N): 527900, 3789600; 528200, 3789600; 528200, 3789300; 527800, 3789300; 527800, 3789500; 527900, 3789500; and 527900, 3789600.

(xl) Subunit 1am: Land bounded by the following UTM11 NAD27 coordinates (E, N): 526900, 3789400; 527100, 3789400; 527100, 3789300; 527200, 3789300; 527200, 3789100; 527400, 3789100; 527400, 3789200; 527700, 3789200; 527700, 3789100; 527800, 3789100; 527800, 3789000; 528000, 3789000; 528000, 3789100; 528400, 3789100; 528400, 3789000; 528500, 3789000; 528500, 3788900; 528600, 3788900; 528600, 3788700; 528700, 3788700; 528700, 3788600; 528800, 3788600; 528800, 3788400; 528900, 3788400; 528900, 3788300; 529000, 3788300; 529000, 3788100; 528900, 3788100; 528900, 3788000; 528700, 3788000; 528700, 3788100; 528100, 3788100; 528100, 3788300; 527900, 3788300; 527900, 3788400; 527800, 3788400; 527800, 3788500; 527700, 3788500; 527700, 3788600; 527600, 3788600; 527600, 3788500; 527200, 3788500; 527200, 3788700; 527100, 3788700; 527100, 3788600; 526800, 3788600; 526800, 3788700; 526600, 3788700; 526600, 3788900; 526700, 3788900;

526700, 3789000; 526900, 3789000; and 526900, 3789400.

(xli) Subunit 1an: Land bounded by the following UTM11 NAD27 coordinates (E, N): 529200, 3788100; 529500, 3788100; 529500, 3787700; 529400, 3787700; 529400, 3787600; 529100, 3787600; 529100, 3788000; 529200, 3788000; and 529200, 3788100.

(xlii) Subunit 1ao: Land bounded by the following UTM11 NAD27 coordinates (E, N): 530200, 3788000; 531100, 3788000; 531100, 3787600; 530800, 3787600; 530800, 3787500; 530900, 3787500; 530900, 3787200; 530200, 3787200; 530200, 3787300; 530100, 3787300; 530100, 3787500; 530200, 3787500; and 530200, 3788000.

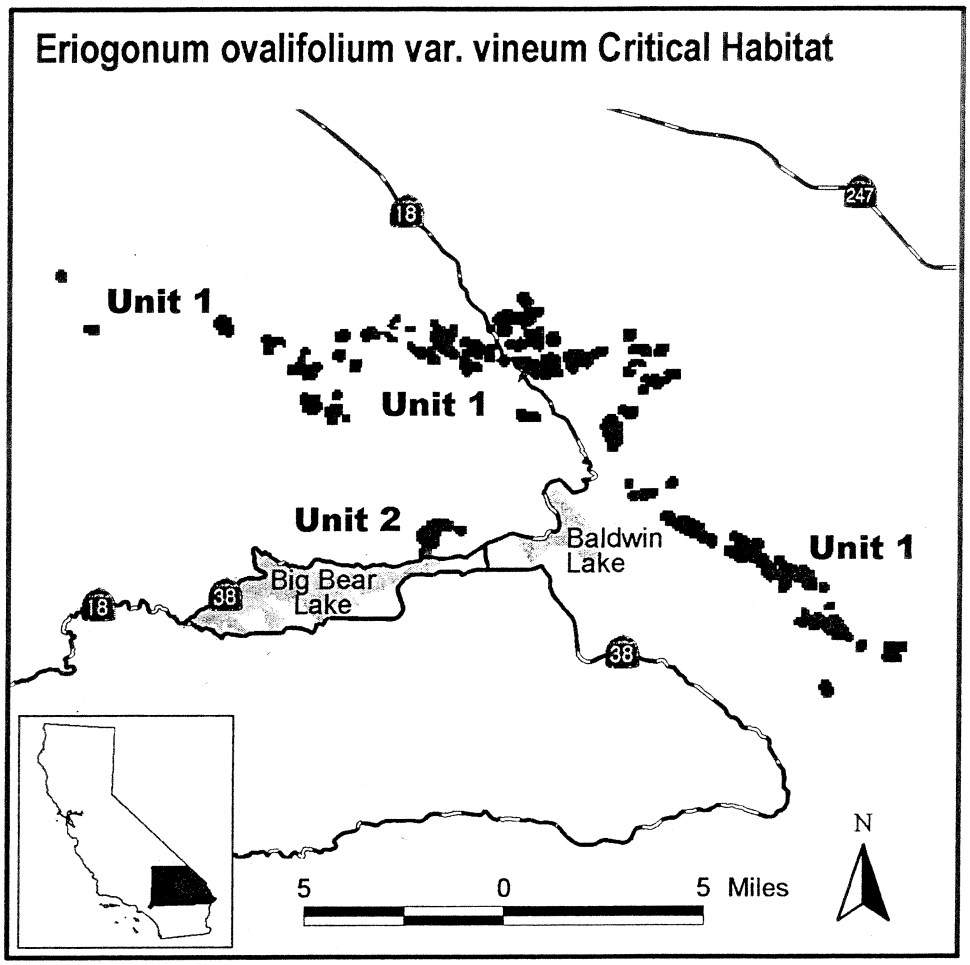
(xliii) Subunit 1ap: Land bounded by the following UTM11 NAD27 coordinates (E, N): 527700, 3786500; 528000, 3786500; 528000, 3786400; 528100, 3786400; 528100, 3786200; 528200, 3786200; 528200, 3785900; 528100, 3785900; 528100, 3785800; 527800, 3785800; 527800, 3785900; 527700, 3785900; 527700, 3786100; 527600, 3786100; 527600, 3786300; 527700, 3786300; and 527700, 3786500.

(5) Bertha Ridge Unit, San Bernardino County, California.

(i) From USGS 1:24,000 quadrangle maps Fawnskin and Big Bear City, California, land bounded by the following UTM11 NAD27 coordinates (E, N): 512000, 3793000; 512700, 3793000; 512700, 3792900; 512900, 3792900; 512900, 3792700; 513400, 3792700; 513400, 3792400; 513300, 3792400; 513300, 3792300; 513100, 3792300; 513100, 3792400; 513000, 3792400; 513000, 3792500; 512900, 3792500; 512900, 3792600; 512800, 3792600; 512800, 3792500; 512400, 3792500; 512400, 3792300; 512300, 3792300; 512300, 3791900; 512200, 3791900; 512200, 3791800; 512000, 3791800; 512000, 3791600; 511900, 3791600; 511900, 3791400; 511500, 3791400; 511500, 3791800; 511600, 3791800; 511600, 3792000; 511500, 3792000; 511500, 3792100; 511400, 3792100; 511400, 3792500; 511500, 3792500; 511500, 3792600; 511600, 3792600; 511600, 3792700; 511800, 3792700; 511800, 3792900; 512000, 3792900; and 512000, 3793000.

(ii) Note: *Eriogonum ovalifolium* var. *vineum* map follows:

BILLING CODE 4310–55–P



BILLING CODE 4310–55–C

* * * * *

Family Polygonaceae: *Oxytheca Parishii* var. *goodmaniana* (Cushenbury Oxytheca)

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

(2) The primary constituent elements of critical habitat for *Oxytheca parishii* var. *goodmaniana* are those habitat components that are essential for the primary biological needs of the species. Based on our current knowledge of this species, the primary constituent elements of critical habitat for this species are listed below and consist of, but are not limited to:

(i) Soils derived primarily from upslope limestone, a mixture of limestone and dolomite, or limestone talus substrates with parent materials that include Bird Spring Formation, Bonanza King Formation, middle and lower members of the Monte Cristo Limestone, and the Crystal Pass member of the Sultan Limestone Formation at elevations between 1,440 and 2,372 m (4,724 and 7,782 ft);

(ii) Soils with intact, natural surfaces that have not been substantially altered by land use activities (*e.g.*, graded, excavated, re-contoured, or otherwise altered by ground-disturbing equipment); and

(iii) Associated plant communities that have areas with a moderately open canopy cover (generally between 25 and 53 percent (Neel 2000)).

(3) Existing features and structures, such as buildings, active mines, paved or unpaved roads, other paved or cleared areas, lawns, and other urban landscaped areas, are not likely to contain one or more of the primary

constituent elements. Federal actions limited to those areas, therefore, would not trigger a section 7 consultation, unless they may affect the species or primary constituent elements in adjacent critical habitat.

(4) Northeastern Slope Unit, San Bernardino County, California.

(i) From USGS 1:24,000 quadrangle maps Butler Peak, Fawnskin, Big Bear City, Rattlesnake Canyon, and Onyx Peak, California.

(ii) Subunit 1a: Land bounded by the following UTM11 NAD27 coordinates (E, N): 498200, 3801600; 498500, 3801600; 498500, 3801500; 498600, 3801500; 498600, 3801200; 498300, 3801200; 498300, 3801300; 498200, 3801300; and 498200, 3801600.

(iii) Subunit 1b: Land bounded by the following UTM11 NAD27 coordinates (E, N): 498800, 3801200; 499400, 3801200; 499400, 3800900; 499500, 3800900; 499500, 3800800; 499600, 3800800; 499600, 3800600; 499500, 3800600; 499500, 3800500; 499400, 3800500; 499400, 3800400; 499100, 3800400; 499100, 3800300; 499000, 3800300; 499000, 3800000; 498900, 3800000; 498900, 3799900; 498700, 3799900; 498700, 3799600; 498300, 3799600; 498300, 3800000; 498400, 3800000; 498400, 3800100; 498600, 3800100; 498600, 3800300; 498500, 3800300; 498500, 3800400; 498200, 3800400; 498200, 3800500; 498000, 3800500; 498000, 3800800; 498400, 3800800; 498400, 3800900; 498700, 3800900; 498700, 3801100; 498800, 3801100; and 498800, 3801200.

(iv) Subunit 1c: Land bounded by the following UTM11 NAD27 coordinates (E, N): 500200, 3799900; 500600, 3799900; 500600, 3799800; 500700, 3799800; 500700, 3799600; 500600, 3799600; 500600, 3799500; 500300, 3799500; 500300, 3799600; 500200, 3799600; and 500200, 3799900.

(v) Subunit 1d: Land bounded by the following UTM11 NAD27 coordinates (E, N): 502800, 3797400; 503400, 3797400; 503400, 3797200; 503500, 3797200; 503500, 3797000; 503400, 3797000; 503400, 3796900; 502900, 3796900; 502900, 3797000; 502800, 3797000; and 502800, 3797400.

(vi) Subunit 1e: Land bounded by the following UTM11 NAD27 coordinates (E, N): 503600, 3799300; 504000, 3799300; 504000, 3798600; 504300, 3798600; 504300, 3798500; 504400, 3798500; 504400, 3798400; 505300, 3798400; 505300, 3798300; 505500, 3798300; 505500, 3798000; 505300, 3798000; 505300, 3797700; 505100, 3797700; 505100, 3797800; 505000, 3797800; 505000, 3798000; 504500, 3798000; 504500, 3797900; 504300, 3797900; 504300, 3798000; 504000, 3798000; 504000, 3798100; 503900, 3798100; 503900, 3798300; 503800, 3798300; 503800, 3798100; 503500, 3798100; 503500, 3798000; 503100, 3798000; 503100, 3798400; 503200, 3798400; 503200, 3798500; 503700, 3798500; 503700, 3798600; 503600, 3798600; and 503600, 3799300.

(vii) Subunit 1f: Land bounded by the following UTM11 NAD27 coordinates (E, N): 506700, 3799500; 506900, 3799500; 506900, 3799200; 507200, 3799200; 507200, 3799300; 507500, 3799300; 507500, 3799200; 507600, 3799200; 507600, 3799000; 507500, 3799000; 507500, 3798900; 507400, 3798900; 507400, 3798800; 506900, 3798800; 506900, 3798900; 506700, 3798900; 506700, 3798800; 506000, 3798800; 506000, 3799200; 506600, 3799200; 506600, 3799400; 506700, 3799400; and 506700, 3799500.

(viii) Subunit 1g: Land bounded by the following UTM11 NAD27 coordinates (E, N): 506800, 3798100; 507300, 3798100; 507300, 3797800; 507400, 3797800; 507400, 3797700; 507600, 3797700; 507600, 3797600; 507900, 3797600; 507900, 3797500; 508000, 3797500; 508000, 3797400; 508100, 3797400; 508100, 3797200; 508200, 3797200; 508200, 3797000; 508300, 3797000; 508300, 3796700; 508400, 3796700; 508400, 3796600; 508500, 3796600; 508500, 3796200; 508200, 3796200; 508200, 3796100; 507700, 3796100; 507700, 3796500; 507800, 3796500; 507800, 3796600; 507900, 3796600; 507900, 3796700; 507800, 3796700; 507800, 3796800; 507700, 3796800; 507700, 3797000; 507600, 3797000; 507600, 3797400; 507500, 3797400; 507500, 3797300; 507400, 3797300; 507400, 3797200; 507000, 3797200; 507000, 3797300; 506900, 3797300; 506900, 3797400; 506800, 3797400; 506800, 3797600; 506700, 3797600; 506700, 3798000; 506800, 3798000; and 506800, 3798100.

(ix) Subunit 1h: Land bounded by the following UTM11 NAD27 coordinates (E, N): 508800, 3799300; 509000, 3799300; 509000, 3799200; 509100, 3799200; 509100, 3798800; 509000, 3798800; 509000, 3798700; 508800, 3798700; 508800, 3798800; 508700, 3798800; 508700, 3799100; 508800, 3799100; and 508800, 3799300.

(x) Subunit 1i: Land bounded by the following UTM11 NAD27 coordinates (E, N): 509300, 3801000; 509600, 3801000; 509600, 3800800; 509700, 3800800; 509700, 3800700; 509800, 3800700; 509800, 3800500; 510100, 3800500; 510100, 3800400; 510300, 3800400; 510300, 3800300; 510500, 3800300; 510500, 3800000; 509900, 3800000; 509900, 3800100; 509500, 3800100; 509500, 3800400; 509600, 3800400; 509600, 3800500; 509500, 3800500; 509500, 3800600; 509400, 3800600; 509400, 3800800; 509300, 3800800; and 509300, 3801000.

(xi) Subunit 1j: Land bounded by the following UTM11 NAD27 coordinates (E, N): 511000, 3800100; 511200, 3800100; 511200, 3800000; 511300, 3800000; 511300, 3799900; 511500, 3799900; 511500, 3799800; 511600, 3799800; 511600, 3799600; 511500, 3799600; 511500, 3799500; 511300, 3799500; 511300, 3799600; 511200, 3799600; 511200, 3799800; 511100, 3799800; 511100, 3799900; 511000, 3799900; and 511000, 3800100.

(xii) Subunit 1k: Land bounded by the following UTM11 NAD27 coordinates (E, N): 512300, 3800600; 512600, 3800600; 512600, 3800500; 512700, 3800500; 512700, 3800100; 512600, 3800100; 512600, 3799900; 512700, 3799900; 512700, 3799600; 512300, 3799600; 512300, 3799700; 512100, 3799700; 512100, 3799600; 511700, 3799600; 511700, 3799800; 511900, 3799800; 511900, 3799900; 512000, 3799900; 512000, 3799800; 512100, 3799800; 512100, 3800000; 511900, 3800000; 511900, 3800100; 511800, 3800100; 511800, 3800500; 512300, 3800500; and 512300, 3800600.

(xiii) Subunit 1l: Land bounded by the following UTM11 NAD27 coordinates (E, N): 513300, 3799300; 513600, 3799300; 513600, 3799200; 513700, 3799200; 513700, 3798900; 513600, 3798900; 513600, 3798800; 513400, 3798800; 513400, 3798900; 513200, 3798900; 513200, 3799200; 513300, 3799200; and 513300, 3799300.

(xiv) Subunit 1m: Land bounded by the following UTM11 NAD27 coordinates (E, N): 513300, 3800400; 513500, 3800400; 513500, 3800200; 513700, 3800200; 513700, 3800100; 513800, 3800100; 513800, 3800000; 514000, 3800000; 514000, 3799900; 514100, 3799900; 514100, 3799700; 513800, 3799700; 513800, 3799800; 513700, 3799800; 513700, 3799900; 513300, 3799900; 513300, 3800000; 513200, 3800000; 513200, 3800300; 513300, 3800300; and 513300, 3800400.

(xv) Subunit 1n: Land bounded by the following UTM11 NAD27 coordinates (E, N): 514200, 3800800; 514400, 3800800; 514400, 3800700; 514500, 3800700; 514500, 3800500; 514200, 3800500; and 514200, 3800800.

(xvi) Subunit 1o: Land bounded by the following UTM11 NAD27 coordinates (E, N): 514800, 3801300; 515000, 3801300; 515000, 3801200; 515100, 3801200; 515100, 3801000; 515000, 3801000; 515000, 3800900; 514700, 3800900; 514700, 3801200; 514800, 3801200; and 514800, 3801300.

(xvii) Subunit 1p: Land bounded by the following UTM11 NAD27 coordinates (E, N): 514600, 3799700; 514900, 3799700; 514900, 3799400; 514600, 3799400; and 514600, 3799700.

(xviii) Subunit 1q: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515900, 3802200; 516200, 3802200; 516200, 3801900; 516100, 3801900; 516100, 3801800; 515900, 3801800; 515900, 3801900; 515800, 3801900; 515800, 3802100; 515900, 3802100; and 515900, 3802200.

(xix) Subunit 1r: Land bounded by the following UTM11 NAD27 coordinates (E, N): 516100, 3801400; 516400, 3801400; 516400, 3801000; 516100, 3801000; 516100, 3801100; 516000, 3801100; 516000, 3801300; 516100, 3801300; and 516100, 3801400.

(xx) Subunit 1s: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515300, 3800400; 515600, 3800400; 515600, 3800300; 515700, 3800300; 515700, 3799800; 515600, 3799800; 515600, 3799700; 515300, 3799700; and 515300, 3800400.

(xxi) Subunit 1t: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515700, 3800600; 516100, 3800600; 516100, 3800500; 516400, 3800500; 516400, 3800400; 516500, 3800400; 516500, 3799800; 516400, 3799800; 516400, 3799700; 516300, 3799700; 516300, 3799800; 516100, 3799800; 516100, 3800000; 516000, 3800000; 516000, 3800100; 515800, 3800100; 515800, 3800300; 515700, 3800300; and 515700, 3800600.

(xxii) Subunit 1u: Land bounded by the following UTM11 NAD27 coordinates (E, N): 516800, 3800400; 517100, 3800400; 517100, 3800300; 517200, 3800300; 517200, 3800000; 516800, 3800000; and 516800, 3800400.

(xxiii) Subunit 1v: Land bounded by the following UTM11 NAD27 coordinates (E, N): 515500, 3799600; 515900, 3799600; 515900, 3799500; 516000, 3799500; 516000, 3799400; 516400, 3799400; 516400, 3799300; 516500, 3799300; 516500, 3799100; 516700, 3799100; 516700, 3799200; 516600, 3799200; 516600, 3799400; 516700, 3799400; 516700, 3799500; 517000, 3799500; 517000, 3799300; 517100, 3799300; 517100, 3799100; 517200, 3799100; 517200, 3798700; 516500, 3798700; 516500, 3798800; 516300, 3798800; 516300, 3798900; 516200, 3798900; 516200, 3799000; 516100, 3799000; 516100, 3799100; 515900, 3799100; 515900, 3799000; 515700, 3799000; 515700, 3798900; 515400, 3798900; 515400, 3799000;

515300, 3799000; 515300, 3799300; 515400, 3799300; 515400, 3799500; 515500, 3799500; and 515500, 3799600.

(xxiv) Subunit 1w: Land bounded by the following UTM11 NAD27 coordinates (E, N): 517500, 3799800; 518000, 3799800; 518000, 3799700; 518300, 3799700; 518300, 3799800; 518600, 3799800; 518600, 3799700; 518800, 3799700; 518800, 3799400; 518600, 3799400; 518600, 3799300; 518700, 3799300; 518700, 3798900; 518300, 3798900; 518300, 3799000; 518200, 3799000; 518200, 3799100; 517900, 3799100; 517900, 3798800; 517800, 3798800; 517800, 3798700; 517500, 3798700; 517500, 3799000; 517400, 3799000; 517400, 3799300; 517500, 3799300; and 517500, 3799800.

(xxv) Subunit 1x: Land bounded by the following UTM11 NAD27 coordinates (E, N): 520900, 3798700; 521200, 3798700; 521200, 3798600; 521300, 3798600; 521300, 3798300; 521200, 3798300; 521200, 3798100; 520800, 3798100; 520800, 3798200; 520700, 3798200; 520700, 3798600; 520900, 3798600; and 520900, 3798700.

(xxvi) Subunit 1y: Land bounded by the following UTM11 NAD27 coordinates (E, N): 526700, 3791000; 527000, 3791000; 527000, 3790900; 527300, 3790900; 527300, 3790800; 527400, 3790800; 527400, 3790600; 527000, 3790600; 527000, 3790400; 526600, 3790400; 526600, 3790700; 526700, 3790700; and 526700, 3791000.

(xxvii) Subunit 1z: Land bounded by the following UTM11 NAD27 coordinates (E, N): 527800, 3790700; 528200, 3790700; 528200, 3790300; 528000, 3790300; 528000, 3790200; 527800, 3790200; 527800, 3790300; 527700, 3790300; 527700, 3790600; 527800, 3790600; and 527800, 3790700.

(xxviii) Subunit 1aa: Land bounded by the following UTM11 NAD27 coordinates (E, N): 527800, 3789600; 528200, 3789600; 528200, 3789200; 527700, 3789200; 527700, 3789500; 527800, 3789500; and 527800, 3789600.

(xxix) Subunit 1ab: Land bounded by the following UTM11 NAD27 coordinates (E, N): 528400, 3790100; 528600, 3790100; 528600, 3790000; 528800, 3790000; 528800, 3789600; 528400, 3789600; 528400, 3789700; 528300, 3789700; 528300, 3790000; 528400, 3790000; and 528400, 3790100.

(xxx) Subunit 1ac: Land bounded by the following UTM11 NAD27 coordinates (E, N): 530300, 3788100; 530500, 3788100; 530500, 3788000; 530600, 3788000; 530600, 3787400; 530300, 3787400; 530300, 3787600; 530200, 3787600; 530200, 3788000; 530300, 3788000; and 530300, 3788100.

(xxxi) Note: *Oxytheca parishii* var. *goodmaniana* map follows:

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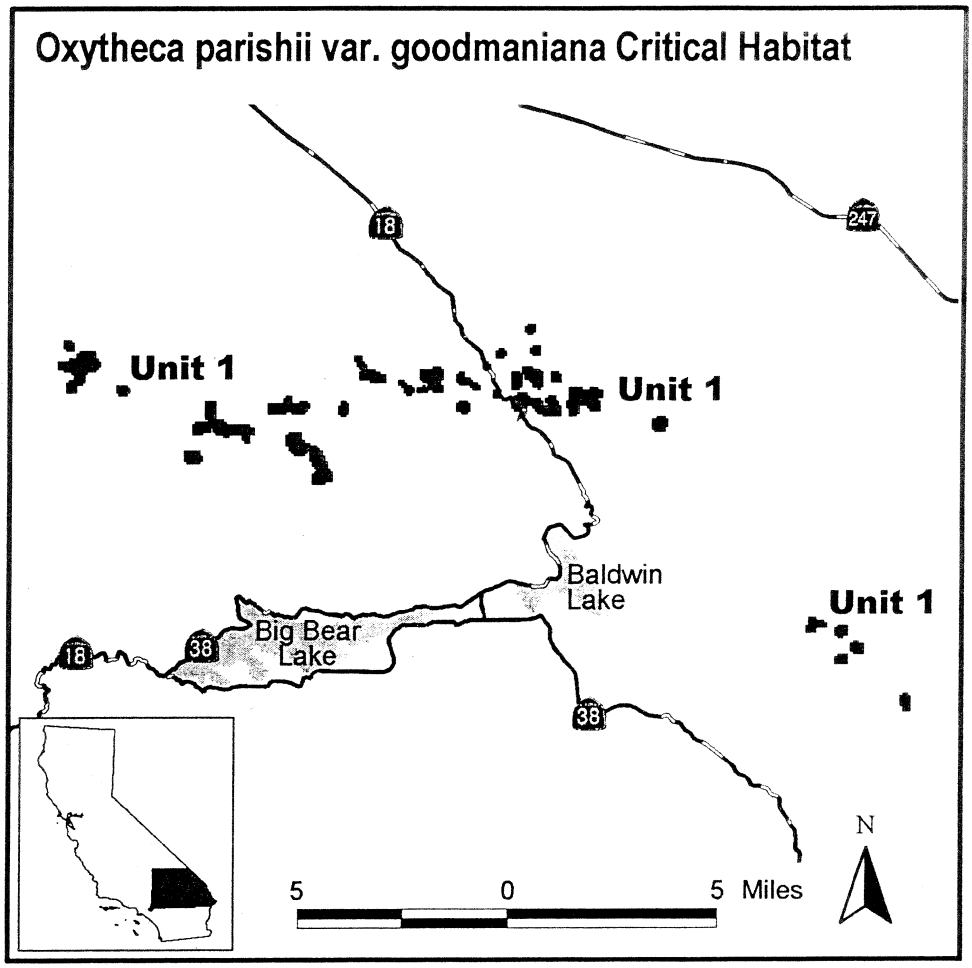

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Dated: December 9, 2002.

Craig Manson,

Assistant Secretary for Fish and Wildlife and Parks.

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