

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AH07

Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for the San Bernardino Kangaroo Rat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose designation of critical habitat for the San Bernardino kangaroo rat (*Dipodomys merriami parvus*) pursuant to the Endangered Species Act of 1973, as amended (Act). A total of approximately 22,423 hectares (55,408 acres) in San Bernardino and Riverside Counties, California, are proposed as critical habitat for the San Bernardino kangaroo rat.

Critical habitat identifies specific areas, both occupied and unoccupied, that are essential to the conservation of a listed species and that may require special management considerations or protection. The primary constituent elements for the San Bernardino kangaroo rat are those habitat components that are essential for the primary biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering. All areas proposed for designation as critical habitat for the San Bernardino kangaroo rat contain one or more of the primary constituent elements essential to the conservation of the species.

If this proposed rule is made final, section 7 of the Act would prohibit destruction or adverse modification of critical habitat by any activity funded, authorized, or carried out by any Federal agency; and, Federal agencies proposing actions that may affect the area designated as critical habitat must consult with us on the effects of their proposed actions, pursuant to section 7(a)(2) of the Act. Section 4 of the Act requires us to consider economic and other relevant impacts of specifying any particular area as critical habitat.

We solicit data and comments from the public on all aspects of this proposal, including data on the economic and other impacts of the designation. We may revise this proposal to incorporate or address new information received during the comment period.

DATES: We will consider all comments on the proposed rule received from interested parties by February 6, 2001. Public hearing requests must be received by January 22, 2001.

ADDRESSES: If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods.

1. You may submit written comments and information to the Field Supervisor, Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2730 Loker Avenue West, Carlsbad, California 92008.

2. You may hand-deliver written comments to our Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2730 Loker Avenue West, Carlsbad, California.

3. You may send comments by electronic mail (e-mail) to FW1CFWO_sbkr@fws.gov. See the Public Comments Solicited section below for file format and other information about electronic filing.

Comments and materials received, and supporting documentation used in the preparation of this proposed rule, will be available for public inspection, by appointment, during normal business hours at the Carlsbad Fish and Wildlife Office.

FOR FURTHER INFORMATION CONTACT: Ken S. Berg, Field Supervisor, Carlsbad Fish and Wildlife Office, at the above address (telephone: 760/431-9440; facsimile 760/431-9624).

SUPPLEMENTARY INFORMATION:**Background**

The San Bernardino kangaroo rat (*Dipodomys merriami parvus*) is one of 19 recognized subspecies of Merriam's kangaroo rat (*D. merriami*), a widespread species distributed throughout arid regions of the western United States and northwestern Mexico (Hall and Kelson 1959, Williams *et al.* 1993). In coastal southern California, Merriam's kangaroo rat is the only species of kangaroo rat with four toes on each of its hind feet. The San Bernardino kangaroo rat has a body length of about 95 millimeters (mm) (3.7 inches (in)) and a total length of 230 to 235 mm (9 to 9.3 in). The hind foot measures less than 36 mm (1.4 in) in length. The body color is pale yellow with a heavy overwash of dusky brown. The tail stripes are medium to dark brown and the foot pads and tail hairs are dark brown. The flanks and cheeks of the subspecies are dusky (Lidicker 1960). The San Bernardino kangaroo rat is considerably darker and smaller than either of the other two subspecies of Merriam's kangaroo rat that occur in

southern California, *D. merriami merriami* and *D. merriami collinus*. The San Bernardino kangaroo rat, endemic to southern California, is one of the most highly differentiated subspecies of Merriam's kangaroo rat and, according to Lidicker (1960), "it seems likely that it has achieved nearly species rank."

The San Bernardino kangaroo rat, a member of the family Heteromyidae, was first described by Rhoades (1894) under the name *Dipodomys parvus* from specimens collected by R.B. Herron in Reche Canyon, San Bernardino County, California. Elliot reduced *D. parvus* to a subspecies of *D. merriami* (*D. merriami parvus*) in 1901, a taxonomic treatment of the species which was confirmed by Hall and Kelson (1959) and Williams *et al.* (1993). The San Bernardino kangaroo rat appears to be separated from Merriam's kangaroo rat (*D. merriami merriami*) at the northernmost extent of its range near Cajon Pass by an 8 to 13 kilometer (km) (5 to 8 mile (mi)) gap of unsuitable habitat.

The historical range of this species extends from the San Bernardino Valley in San Bernardino County to the Menifee Valley in Riverside County (Hall and Kelson 1959, Lidicker 1960). Within this range, the San Bernardino kangaroo rat was known from more than 25 localities (McKernan 1993). From the early 1880s to the early 1930s, the San Bernardino kangaroo rat was a common resident of the San Bernardino and San Jacinto Valleys of southern California (Lidicker 1960). At the time of listing, based on the distribution of suitable soils and museum collections of this species, we estimated that the historical range encompassed approximately 130,587 hectares (ha) (326,467 acres (ac)) (U.S. Fish and Wildlife Service unpubl. GIS maps, 1998; in 63 FR 51005). Recent studies indicate that the species occupies a wider range of soil and vegetation types than previously thought (Braden and McKernan 2000), which suggests that the species' historical range may have been larger than we estimated at the time of listing.

Although the entire area of the historical range would not have been occupied at any given time due to hydrological processes and resultant variability in habitat suitability, the San Bernardino kangaroo rat was widely distributed across the San Bernardino and San Jacinto valleys. By the 1930s, suitable habitat had been estimated to have been reduced to approximately 11,200 ha (28,000 ac) (McKernan 1997). Habitat destruction continued such that in 1997 the San Bernardino kangaroo rat was thought to occupy only 1,299 ha (3,247 ac) of suitable habitat divided unequally among seven locations

(McKernan 1997). At the time of listing, we also estimated that an additional 5,277 ha (13,193 ac) of additional habitat that was likely occupied by the San Bernardino kangaroo rat was distributed within the Santa Ana River, Lytle and Cajon creeks, and San Jacinto River. Unlike the three largest habitat blocks, we did not provide an estimate for additional habitat that was likely occupied for the smaller remnant populations at City Creek, Etiwanda alluvial fan and wash, Reiche Canyon, and South Bloomington (including Jurupa Hills). At the time of listing, we discounted approximately 1,358 ha (3,396 ac) of the 5,277 ha (13,193 ac) of additional habitat as being too mature or degraded to support San Bernardino kangaroo rats. Additional research has indicated that San Bernardino kangaroo rats occupy mature alluvial scrub, coastal sage scrub, and even chaparral vegetation types (McKernan 2000). Thus, a minimum of approximately 6,576 ha (16,440 ac) of habitat was likely occupied at the time of listing.

Additional research has expanded our knowledge on the distribution and habitat needs of the San Bernardino kangaroo rat. We are proposing critical habitat for the Santa Ana River (including City, Plunge, and San Timoteo Creeks), Lytle and Cajon Creeks, San Jacinto River and Bautista Creek, Etiwanda alluvial fan (including the Etiwanda Wash), Reche Canyon, and Jurupa Hills-South Bloomington (McKernan 1997; California Natural Diversity Data Base (CNDDDB) 2000; University of California, Riverside species database 2000; database for the San Bernardino Valley-Wide Multiple Species Habitat Conservation Plan (MSHCP) 2000; and section 10(a)(1)(A) survey reports 1998–2000). The areas proposed as critical habitat are an expansion of the known locations of the San Bernardino kangaroo rat identified in the final listing rule and are within the known geographical area for this species. Other known populations of the San Bernardino kangaroo rat have not been proposed as critical habitat. We did not propose critical habitat for small scattered populations or habitats which were in areas that were highly fragmented by urban and agricultural development and/or were no longer subject to hydrological and geomorphological processes that would naturally maintain alluvial scrub vegetation.

Habitat for the San Bernardino kangaroo rat has been severely reduced and fragmented by development and related activities in the San Bernardino and San Jacinto valleys, resulting in reduced habitat patch size and

increased distances between patches of suitable habitat. As noted by Andren (1994) in a discussion of highly fragmented landscapes, reduced habitat patch size and isolation exacerbate the effects of habitat loss on a species' persistence (*i.e.*, the loss of species, or decline in population size, will be greater than expected from habitat loss alone) and may preclude recolonization of suitable habitat following local extinction.

The loss of native vertebrates, including rodents, due to habitat fragmentation is well documented (Soule *et al.* 1992, Andren 1994, Bolger *et al.* 1997). Results of habitat fragmentation on rodents may include increased extinction rates due to increased vulnerability to random demographic (population characteristics such as age and sex structure) and environmental events (Hanski 1994, Bolger *et al.* 1997). For example, isolated populations are more susceptible to local extinction by manmade or natural events, such as disease or floods, than are larger, more connected populations. Furthermore, small populations are more likely to experience detrimental effects associated with reproduction, including genetic drift, inbreeding depression, and a loss of genetic variability; factors that increase the risk of extinction (Caughley 1994, Lacy 1997). Past and ongoing causes of fragmentation of San Bernardino kangaroo rat habitat include conversion of lands to urban, industrial, agricultural, and recreational uses; construction of roads and freeways; and development of flood control structures such as dams, levees, and channels. The effect of these human-caused disturbances is two-fold—(1) they reduce the amount of suitable habitat for the San Bernardino kangaroo rat, breaking large areas into smaller patches, and (2) they act as barriers to movement between the remaining suitable habitat patches.

San Bernardino kangaroo rats are typically found on alluvial fans (relatively flat or gently sloping masses of loose rock, gravel, and sand deposited by a stream as it flows into a valley or upon a plain), flood plains, along washes, in adjacent upland areas containing appropriate physical and vegetative characteristics (McKernan 1997), and in areas with historic braided channels (McKernan *in litt.* 1999). These areas consist of sand, loam, sandy loam, or gravelly soils (McKernan 1993, Braden and McKernan 2000) that are associated with alluvial processes (*i.e.*, the deposition of clay, silt, sand, gravel, or similar material by running water such as rivers and streams; debris

flows). San Bernardino kangaroo rats also occupy areas where sandy soils are at least partially deposited by winds (*e.g.*, northwest of the Jurupa Hills) (McKernan 1997). These soils allow kangaroo rats to dig simple, shallow burrow systems (McKernan 1997) and typically support alluvial sage scrub and chaparral vegetation.

Alluvial sage scrub has been described as a variant of coastal sage scrub (Smith 1980) and is also referred to as Riversidean alluvial fan scrub, alluvial fan sage scrub, cismontane alluvial scrub, alluvial fan scrub, or by Holland (1986) as Riversidean Alluvial Fan Sage Scrub. Alluvial scrub is considered a distinct and rare plant community found primarily on alluvial fans and flood plains along the southern bases of the Transverse Ranges and portions of the Peninsular Ranges in southern California (CNDDDB 1993). This relatively open vegetation type is adapted to periodic flooding and erosion (Hanes *et al.* 1989) and is comprised of an assortment of drought-deciduous shrubs and larger evergreen woody shrubs characteristic of both coastal sage scrub and chaparral communities (Smith 1980).

Three phases of alluvial sage scrub have been described: pioneer, intermediate, and mature. The phases are thought to correspond to factors such as flood scour, distance from flood channel, time since last catastrophic flood, and substrate features (Smith 1980, Hanes *et al.* 1989). Under natural conditions, flood waters periodically break out of the main river channel in a complex pattern, resulting in a braided appearance to the flood plain and a mosaic of vegetation stages. Pioneer sage scrub, the earliest phase, is subject to frequent hydrological disturbance, the sparse vegetation usually renewed by frequent floods (Smith 1980, Hanes *et al.* 1989). The intermediate phase, which typically is found on benches between the active channel and mature flood plain terraces, is subject to periodic flooding at longer intervals. The vegetation of early and intermediate stages is relatively open, and supports the highest densities of the San Bernardino kangaroo rat (McKernan 1997).

The latest, or mature, phase of alluvial sage scrub is rarely affected by flooding and supports the highest plant density (Smith 1980). The mature terraces and upland areas adjacent to them supporting the oldest phase of sage scrub provide an important refugia for San Bernardino kangaroo rats during flood events. Although mature areas are generally used less frequently or occupied at lower densities than those

supporting earlier phases, these areas are critical to the long-term survival of the species (*i.e.*, prevent extinction) by providing a source population for re-colonization following catastrophic flooding events in which kangaroo rats inhabiting lower areas of the flood plain drown (McKernan, pers. comm. 2000).

Alluvial scrub vegetation includes plant species that are often associated with coastal sage scrub, chaparral, or desert transition communities. Common plant species include: Scalebroom (*Lepidospartum squamatum*), California buckwheat (*Eriogonum fasciculatum*), woolly yerba santa (*Eriodictyon crassifolium*), hairy yerba santa (*Eriodictyon trichocalyx*), our Lord's candle (*Yucca whipplei*), sugar bush (*Rhus ovata*), lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), California juniper (*Juniperus californicus*), mulefat (*Baccharis salicifolia*), showy penstemon (*Penstemon spectabilis*), golden aster (*Heterotheca villosa*), tall buckwheat (*Eriogonum elongatum*), brittle bush (*Encelia farinosa*), prickly pear and cholla (*Opuntia* spp.), chamise (*Adenostoma fasciculatum*), holly-leaf cherry (*Prunus ilicifolia*), oaks (*Quercus* spp.), white sage (*Salvia apiana*), and annual forbs (*e.g.*, phacelia (*Phacelia* spp.), lupine (*Lupinus* spp.), and popcorn flower (*Plagiobothrys* spp.)), and native and nonnative grasses.

Similar to other subspecies of Merriam's kangaroo rat, the San Bernardino kangaroo rat prefers moderately open habitats characterized by low shrub canopy cover (McKernan 1997). However, the species uses areas of denser vegetation (Braden and McKernan 2000), and McKernan (pers. comm. 2000) stated that such areas are essential to San Bernardino kangaroo rat conservation. Research conducted by Braden and McKernan (2000) during 1998 and 1999 demonstrated that areas with late phases of the flood plain vegetation, such as mature alluvial fan sage scrub and associated coastal sage scrub and chaparral, including some areas of moderate to dense vegetation such as nonnative grasslands, are at least periodically occupied by the species.

A study of San Bernardino kangaroo rats conducted by Braden and McKernan (2000) provided additional new, specific data about the species' habitat characteristics. Braden and McKernan determined: (1) Perennial cover varies from 0 to 100 percent, (2) annual cover (primarily nonnative grasses) varies from 0 to 70 percent, (3) the proportion of surface fine sands varies from 0 to 100 percent, (4) surface cover of small rock fragments varies

from 0 to 90 percent, and (5) surface cover of large rock fragments varies from 0 to 51 percent. The San Bernardino kangaroo rat has also been documented in areas of human disturbance not typically associated with the species, including nonnative grasslands separating tracts of suitable habitat, margins of orchards and out-of-use vineyards (as far as 50 m (150 feet) from adjacent, suitable sage scrub), and areas of wildland/urban interface within flood plains or terraces and adjacent to occupied habitat (McKernan, *in litt.* 2000).

Areas that contain low densities of San Bernardino kangaroo rats are important for dispersal, genetic exchange, colonization of newly suitable habitat, and re-colonization of areas after severe storm events. The dynamic nature of the fluvial (river) habitat leads to a situation where not all the habitat associated with alluvial processes is suitable for the species at any point in time. However, areas generally considered unsuitable habitat, such as out-of-production vineyards and margins of orchards, can and do develop into suitable habitat for the species by natural processes (McKernan, pers. comm. 2000).

Little is known about home range size, dispersal distances, or other spatial requirements of the San Bernardino kangaroo rat. However, home ranges for the Merriam's kangaroo rat in the Palm Springs, California, area average 0.33 ha (0.8 ac) for males and 0.31 ha (0.8 ac) for females (Behrends *et al.* 1986). Furthermore, Blair (1943) reported much larger home ranges for Merriam's kangaroo rats in New Mexico, where home ranges averaged 1.7 ha (4.1 ac) for males and 1.6 ha (3.8 ac) for females. Space requirements for the San Bernardino kangaroo rat likely vary according to season, age and sex of animal, food availability, and other factors. Although outlying areas of their home ranges may overlap, *Dipodomys* adults actively defend small core areas near their burrows (Jones 1993). Home range overlap between males and between males and females is extensive, but female-female overlap is slight (Jones 1993). The degree of competition between San Bernardino kangaroo rats and sympatric (living in the same geographical area) species of kangaroo rats for food and other resources is not presently known.

Similar to other kangaroo rats, the Merriam's kangaroo rat is generally granivorous (feeds on seeds and grains) and often stores large quantities of seeds in surface caches (Reichman and Price 1993). Green vegetation and insects are also important seasonal food sources.

Insects, when available, have been documented to constitute as much as 50 percent of a kangaroo rat's diet (Reichman and Price 1993).

Wilson *et al.* (1985) reported that compared to other rodents, Merriam's kangaroo rat, and heteromyids in general, have relatively low reproductive output. Rainfall and the availability of food have been cited as factors affecting kangaroo rat populations. Droughts lasting more than a year can cause rapid declines in population numbers after seed caches are depleted (Goldingay *et al.* 1997).

Little information exists on the specific types and local abundances of predators that feed on the San Bernardino kangaroo rat. Potential native predators include the common barn owl (*Tyto alba*), great horned owl (*Bubo virginianus*), long-eared owl (*Asio otus*), gray fox, (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), long-tailed weasel (*Mustela frenata*), bobcat (*Felis rufus*), badger (*Taxidea taxus*), San Diego gopher snake (*Pituophis melanoleucus annectens*), California king snake (*Lampropeltis getulus californiae*), red diamond rattlesnake (*Crotalus ruber*), and southern Pacific rattlesnake (*Crotalus viridis*). Domestic cats (*Felis catus*) are known to be predators of native rodents (Hubbs 1951, George 1974) and have the ability to reduce population sizes of rodents (Crooks and Soule 1999). Predation of San Bernardino kangaroo rats by domestic cats has been documented (McKernan, pers. comm., 1994). Continued fragmentation of habitat is likely to promote higher levels of predation by native animals (Bolger *et al.* 1997) and urban-associated animals (*e.g.*, domestic cats, opossums (*Didelphis virginianus*), and striped skunks (*Mephitis mephitis*)) as the interface between natural habitat and urban areas is increased (Churcher and Lawton 1987).

A limited amount of data exists pertaining to population dynamics of the San Bernardino kangaroo rat. Information is not currently available on several aspects of the species' life history such as fecundity (the capacity of an organism to produce offspring), survival, population age and sex structure, intra- and interspecific competition, and causes and rates of mortality. With respect to population density, Braden and McKernan (2000) documented substantial annual variation on a trapping grid in San Bernardino County, where densities ranged from 2 to 26 animals per hectare (2.47 acre). The reasons for these greatly disparate values, which represent the lowest and the second highest

population densities recorded during the 15-month study, are unknown. These fluctuations bring to light several important aspects of the species' distribution and life history which should be considered when identifying areas essential for the conservation of the species—(1) A low population density observed in an area at one point in time does not mean the area is occupied at the same low density any other month, season, or year; (2) a low population density is not an indicator of low habitat quality or low overall value of the land for the conservation of the species; (3) an abundance of San Bernardino kangaroo rats can decrease rapidly; and (4) one or more factors (e.g., food availability, fecundity, disease, predation, genetics, environment) are strongly influencing the species' population dynamics in one or more areas. High-amplitude, high-frequency fluctuations in small, isolated populations make them extremely susceptible to local extinction.

Previous Federal Action

The San Bernardino kangaroo rat was designated by the Service as a category 2 candidate species for Federal listing as endangered or threatened in 1991 (56 FR 58804). Category 2 comprised taxa for which information in the possession of the Service indicated that proposing to list as endangered or threatened was possibly appropriate, but for which data on biological vulnerability and threat(s) were not available to support a proposed rule. Based on a review of status and distribution of the San Bernardino kangaroo rat, the subspecies was upgraded to a category 1 candidate for listing in 1994 (59 FR 58982). Category 1 candidate species were those species for which the Service had sufficient information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species. Upon publication of the February 28, 1996, Notice of Review (61 FR 7596), the Service ceased using category designations and included the San Bernardino kangaroo rat as a candidate species. The San Bernardino kangaroo rat was retained as a candidate species in the September 19, 1997, Notice of Review (62 FR 49401).

The San Bernardino kangaroo rat was emergency listed as endangered on January 27, 1998; concurrently, a proposal to make provisions of the emergency listing permanent also was published (63 FR 3835 and 63 FR 3877). On September 24, 1998, we published a final rule determining the San Bernardino kangaroo rat to be an endangered species (63 FR 51005).

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time a species is designated to be endangered or threatened. According to regulations (50 CFR 424.12(a)(1)), 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 threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

Critical habitat designation for the San Bernardino kangaroo rat was determined not to be prudent at the time of listing because an increase in the degree of threat could result (63 FR 51005). As detailed in the emergency rule listing the San Bernardino kangaroo rat (63 FR 3840), threats of intentional habitat vandalism or destruction (such as diskings or blading) directed specifically at habitat for the San Bernardino kangaroo rat were documented. As indicated in the final listing rule (63 FR 51005), intentional destruction of areas occupied by the San Bernardino kangaroo rat and other listed species occurred frequently within range of the species. We determined that designation of critical habitat, including the publication of maps providing precise locations, would bring unnecessary attention to those areas of the range that are occupied by this species and would encourage acts of vandalism or intentional destruction of habitat. Moreover, the Service determined that the designation of critical habitat for the San Bernardino kangaroo rat was not prudent due to the lack of benefit to the species.

On March 4, 1999, the Southwest Center for Biological Diversity and Christians Caring for Creation filed a lawsuit in Northern District of California Federal Court against the Service and Secretary of the Department of the Interior for failure to designate critical habitat for the San Bernardino kangaroo rat and six other federally listed species. A settlement agreement was entered into on November 3, 1999, in which we would publish a proposal to withdraw the existing "not prudent" critical habitat determination and make a new prudency determination. If designation of critical habitat for the San Bernardino kangaroo rat was determined to be prudent, we would publish a proposed rule critical habitat designation by December 1, 2000.

In the last few years, a series of court decisions have overturned Service determinations regarding a variety of species that designation of critical habitat would not be prudent (e.g., *Natural Resources Defense Council v. U.S. Department of the Interior* 113 F. 3d 1121 (9th Cir. 1997); *Conservation Council for Hawaii v. Babbitt*, 2 F. Supp. 2d 1280 (D. Hawaii 1998)). Based on the standards applied in those judicial opinions, we believe that designation of critical habitat would be prudent for the San Bernardino kangaroo rat.

Due to the small number of populations, the San Bernardino kangaroo rat is vulnerable to vandalism, or other disturbance. As we indicated in the final rule (63 FR 51005), we are concerned that these threats might be exacerbated by the publication of critical habitat maps and further dissemination of locational information. However, at this time, we do not have site-specific evidence throughout its range documenting the taking, vandalism, collection, or trade of the species. Consequently, consistent with applicable regulations (50 CFR 424.12(a)(1)(i)) and recent case law, we do not expect that the identification of critical habitat will substantially increase the degree of threat to this species of taking or other human activity.

In the absence of a finding that critical habitat would increase threats to a species, if there are any benefits to critical habitat designation, then a prudent finding is warranted. In the case of this species, some benefits may exist to the designation of critical habitat. The primary regulatory effect of critical habitat is the section 7 requirement that Federal agencies refrain from taking any action that destroys or adversely modifies critical habitat. While a critical habitat designation for occupied habitat by this species likely would not change the section 7 consultation outcome because an action that destroys or adversely modifies such critical habitat likely would also result in jeopardy to the species, section 7 consultation may be triggered in a few instances where critical habitat has been designated. Examples could include currently unoccupied habitat that may become occupied in the future or areas that have not been thoroughly surveyed. Moreover, we acknowledged in the final rule (63 FR 51005) that critical habitat designation, in some situations, may provide limited value to a species by identifying areas important for the conservation of the species and calling attention to those areas in special need of protection. Designating critical

habitat may also convey some educational or informational benefits to the species. Therefore, we propose that critical habitat is prudent for the San Bernardino kangaroo rat.

Critical Habitat

Critical habitat is defined in section 3 of the Act 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) that 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 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 of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 also requires conferences on Federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat. In regulations at 50 CFR 402.02, we define destruction or adverse modification as “* * * the direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.” 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. Because consultation under section 7 of the Act does not apply to activities on private or other non-Federal lands that do not involve a Federal nexus, critical habitat designation would not result in any regulatory requirements for these actions.

The designation of critical habitat does not, in itself, lead to the recovery of a listed species. The designation of critical habitat does not create a management plan, establish a preserve, reserve, or wilderness area where no actions are allowed, it does not establish numerical population goals, prescribe specific management actions (inside or

outside of critical habitat), or directly affect areas not designated as critical habitat.

In accordance with section 3(5)(C) of the Act, not all areas that can be occupied by a species will be designated critical habitat. Not all areas containing one or more of the primary constituent elements are necessarily essential to the conservation of a threatened or endangered species. Areas that may contain one or more of the primary constituent elements to support the life cycle requirements of the San Bernardino kangaroo rat, but which are not included in proposed critical habitat, would be considered under other parts of the Act and/or other conservation laws and regulations.

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, and 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)).

Section 4 of the Act requires that we designate critical habitat at the time of listing and based on what we know at the time of the designation. When we designate critical habitat at the time of listing or under court-ordered deadlines, we often may 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 are proposing for designation only areas currently known to be essential. Essential areas already contain the features and habitat characteristics that are necessary to sustain the species. Within the geographic area occupied by the species, we are not proposing to designate areas that do not now have the primary constituent elements that provide essential life-cycle requisites of the species, as defined at 50 CFR 424.12(b). Moreover, certain known populations of the San Bernardino kangaroo rat have not been proposed as critical habitat. We did not propose critical habitat for small scattered populations or habitats which were in areas that were highly fragmented by urban and agricultural development and/or were no longer subject to hydrological and geomorphological processes that would naturally maintain alluvial scrub vegetation. The areas proposed as critical habitat are an expansion of the

known locations of the San Bernardino kangaroo rat identified in the final listing rule and are within the known geographical area for this species.

Our regulations state that, “The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the 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)). Based on the best available scientific and commercial data, there is no foundation upon which to make a determination that the conservation needs of the species require designation of critical habitat outside of occupied areas, so we have not proposed to designate critical habitat in areas outside the geographic area occupied by the species.

The Service’s 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 decisions made by the Service represent the best scientific and commercial data available. This policy requires Service 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 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, and biological assessments or other unpublished materials (*i.e.*, gray literature).

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that any 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, it is important to 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 take prohibition, 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 units 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

In determining areas that are essential to conserve the San Bernardino kangaroo rat, we used the best scientific and commercial data available. These data included research and survey observations published in peer reviewed articles; regional Geographic Information System (GIS) coverages; San Bernardino County Multiple Species Habitat Conservation Program (MSHCP) database; the University of California, Riverside, species database; and data from reports submitted by biologists holding section 10(a)(1)(A) recovery permits.

Habitat loss and fragmentation resulted in blocks of habitat occupied by the San Bernardino kangaroo rat that functioned independently. Lands that support the remaining, including remnant, populations are essential to the conservation of the species. The protection of land supporting the three largest remaining populations of the San Bernardino kangaroo rat is not, by itself, sufficient to ensure the survival and recovery of the species because the status of these populations continues to be reduced by habitat loss, degradation, and fragmentation due to sand and gravel mining operations, flood control projects, water conservation activities, urban development, and vandalism. Furthermore, the majority of animals in these populations is constrained to the flood plains where they are susceptible to extirpation during large-scale flood events.

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 are required to base critical habitat determinations on the best scientific and commercial data available and to consider those physical and biological features that are essential to the conservation of the species and that may require special management considerations and protection. These

physical and biological features, as outlined in 50 CFR 424.12, include but are not limited to the following:

- Space for individual and population growth, and for normal behavior;
- Food, water, or other nutritional or physiological requirements;
- Cover or shelter;
- Sites for breeding, reproduction, or rearing of offspring;
- Habitats that are protected from disturbance or are representative of the historical geographical and ecological distributions of a species.

The primary constituent elements for the San Bernardino kangaroo rat are those habitat components that are essential for the primary biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering. The primary constituent elements are found in areas influenced by historic and/or current geomorphological and hydrological processes and areas of wind-blown sand that support alluvial sage scrub vegetation or a mosaic of alluvial sage scrub and associated vegetation types (e.g., coastal sage scrub, chaparral) within San Bernardino and Riverside counties. Primary constituent elements associated with the biological needs of dispersal are also found in areas that provide connectivity or linkage between or within larger core areas, including open space and disturbed areas containing introduced plant species.

Primary constituent elements include:

- (1) Dynamic geomorphological and hydrological processes typical of fluvial systems within the historical range of the animal, *i.e.*, areas that are within active and historical flood regimes including river, creek, stream, and wash channels; alluvial fans; flood plains; flood-control berms and lands adjacent to them; flood plain benches and terraces; and historic braided channels;
- (2) Historical and current alluvial processes within the historical range of the animal;
- (3) Alluvial sage scrub and associated vegetation, such as coastal sage scrub and chamise chaparral. Common plant species include: Scalebroom (*Lepidospartum squamatum*), California buckwheat (*Eriogonum fasciculatum*), yerba santa (*Eriodictyon* spp., our Lord's candle (*Yucca whipplei*), sugar bush (*Rhus ovata*), lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), California juniper (*Juniperus californicus*), mulefat (*Baccharis salicifolia*), showy penstemon (*Penstemon spectabilis*), golden aster (*Heterotheca villosa*), tall buckwheat (*Eriogonum elongatum*), prickly pear

and cholla (*Opuntia* spp.), chamise (*Adenostoma fasciculatum*), popcorn flower (*Plagiobothrys* spp.), and native and nonnative grasses.

(4) Sand, loam, or sandy loam soils within the historical range of the animal;

(5) Upland areas that may provide refugia from environmental or demographic stochastic and catastrophic events; and,

(6) Moderate to low degree of human disturbance to habitat within the species' historical range, *i.e.*, lands within or immediately adjacent to flood plain terraces that have suitable habitat for the species and areas within 50 m (150 ft) of currently suitable San Bernardino kangaroo rat habitat, such as agricultural lands that are not disked annually, out-of-production vineyards, margins of orchards, areas of active or inactive industrial or resource extraction activities, and urban/wildland interfaces.

Criteria Used To Identify Critical Habitat

In identifying areas essential to the conservation of the species, we used data regarding the habitat elements essential to the species, including vegetation types, hydrology, elevation, topography, and soil type and texture. We identified suitable and necessary habitat components within the species' current and historic range, and examined the degree of existing urbanization and other forms of anthropogenic habitat disturbance, excluding those areas in which development has permanently precluded occupation by the species.

To identify critical habitat units, we first evaluated those lands containing essential habitat to determine if these lands were covered by any HCPs or other special management plans that provided protection and management for the San Bernardino kangaroo rat. We determined that none of these lands are covered by an approved HCP or other special management plan covering the San Bernardino kangaroo rat. We then evaluated those areas where ongoing habitat conservation planning efforts have resulted in the preparation of biological analyses that identify habitat important for the conservation of the San Bernardino kangaroo rat. These include the proposed Western Riverside County MSHCP and the proposed San Bernardino Valley-Wide MSHCP. We used those biological analyses in concert with data regarding (1) known San Bernardino kangaroo rat occurrences, (2) alluvial fan sage scrub and associated vegetation, (3) geomorphology, and (4) connectivity

corridors between San Bernardino kangaroo rat populations to identify those lands that are essential for the conservation of the species within the respective planning area boundaries. Finally, we evaluated other lands for their conservation value for the San Bernardino kangaroo rat. Using similar methodology and data, we delimited a study area by selecting geographic boundaries based on the four factors described above. We determined conservation value based on the presence of, or proximity to, extant San Bernardino kangaroo rat populations and/or alluvial fan sage scrub and associated vegetation, surrounding land-uses, and the potential to allow dispersal of the species between occupied areas.

Proposed critical habitat for the San Bernardino kangaroo rat was delineated based on interpretation of the multiple sources available during the preparation of this proposed rule, including aerial photography at a scale of 1:24,000 (comparable to the scale of a 7.5 minute U.S. Geological Survey Quadrangle topographic map), current (2000) aerial photography prints, and projects authorized for take through section 7 consultations. These lands were divided into specific map units, *i.e.*, critical habitat units. For the purpose of this proposal, these units have been described using primarily UTM North American Datum of 1927 (NAD 27) derived from a 1-ha (2.47-ac) grid that approximated the boundaries delineated from the digital aerial photography.

In defining critical habitat boundaries, we made an effort to avoid development, such as urbanized areas (*e.g.*, cities) and similar lands that are not critical habitat. However, the minimum mapping unit that we used to approximate our delineation of critical habitat for the San Bernardino kangaroo rat did not allow us to exclude all developed areas not likely to contain the primary constituent elements essential for conservation of the San Bernardino kangaroo rat. Existing features and structures within the boundaries of the mapped units, such as buildings, roads, railroads, airports, other paved areas, lawns, and other urban landscaped areas will not contain one or more of the primary constituent elements. Therefore, Federal actions limited to those areas would not trigger a section 7 consultation unless they affect the species and/or primary constituent elements in adjacent critical habitat. In

summary, the critical habitat areas described below constitute our best assessment of areas needed for the long-term survival and conservation of the species.

We considered several qualitative criteria in the selection and proposal of specific areas, or units, for San Bernardino kangaroo rat critical habitat, including:

(1) Occupation by the San Bernardino kangaroo rat. We identified six areas that support populations of the San Bernardino kangaroo rat that we consider essential to the conservation of this species. Not all known populations of the San Bernardino kangaroo rat or suitable habitats have been proposed as critical habitat. The probability that all or most of the remaining occurrences of an endangered species will be lost to environmental or demographic stochasticity increases as the number of populations within the range of the species decreases. Only six relatively small and isolated populations remain; three (*i.e.*, Etiwanda, Reche Canyon, and Jurupa Hills) of which are so limited in abundance and distribution that extirpation is reasonably certain without immediate protection and conservation. Small, isolated populations have a high probability of extinction because they are susceptible to stochastic (*i.e.*, random, naturally occurring) events such as inbreeding, the loss of genetic variation, high variability in age and sex ratios, and catastrophes such as floods, droughts, or disease epidemics (Lande 1988, Saccheri *et al.* 1998), and isolation precludes immigration and/or recolonization. These populations continue to be reduced by habitat loss, degradation, and fragmentation owing to sand and gravel mining operations, flood control projects, water conservation activities, urban development, and vandalism. Furthermore, the majority of animals in these populations occur in the flood plains that are highly susceptible to extirpation during large-scale flood events. As a result, areas proposed as critical habitat for the San Bernardino kangaroo rat must be protected and managed to increase the probability that environmental or demographic stochasticity will not result in the extinction of the species.

(2) The state of natural processes that rejuvenate and maintain suitable habitat. Normal periodic flooding scours the terrain, removes vegetation, and deposits debris and soil (*e.g.*, sand) to

regenerate favorable conditions. Because the species appears to be adapted to more open habitat types (*e.g.*, higher population densities in open- versus closed-canopy shrub communities), the more open state promoted by periodic flooding is essential for the conservation of this animal.

(3) The presence of lands that function as upland refugia. The majority of the remaining populations of San Bernardino kangaroo rats are constrained to flood plains, where they are susceptible to extirpation during large-scale flood events. Occupied upland refugia areas may act as population sources for natural recolonization, thereby decreasing the probability of extinction of the species.

(4) The proximity of the area to large tracts of undeveloped land that are important for population expansion, upland refugia, connectivity, providing buffers from development, perpetuation of ecosystem processes, and maintenance of a dynamic mosaic of vegetation. In addition, large tracts of land that allow for the existence of naturally functioning ecosystems with an array of native predators decrease the probability of predation by urban-associated animals such as domestic cats, which are known predators of the San Bernardino kangaroo rat.

Proposed Critical Habitat Designation

The approximate area encompassing proposed critical habitat by county and land ownership is shown in Table 1. Proposed critical habitat encompasses habitat throughout the species' remaining range in Riverside and San Bernardino counties, California. Lands proposed are under Tribal, private, State, and Federal ownership, with Federal lands including lands managed by the U.S. Forest Service, Bureau of Land Management, and Department of Defense. Six critical habitat units have been delineated. At the time of listing, we identified the Santa Ana River, Lytle and Cajon washes, and San Jacinto River as containing the largest extant concentrations of San Bernardino kangaroo rats and blocks of suitable habitat. These three areas continue to support important concentrations San Bernardino kangaroo rat and are the major strongholds of this species within its geographical range. A brief description of each unit, and reasons for proposing it as critical habitat, are presented below.

TABLE 1.—APPROXIMATE PROPOSED CRITICAL HABITAT AREA (HA (AC)) BY COUNTY AND LAND OWNERSHIP—ESTIMATES REFLECT THE TOTAL AREA WITHIN CRITICAL HABITAT UNIT BOUNDARIES

County	Federal*	Local/state	Private	Tribal	Total
San Bernardino	1,501 ha (3,710 ac)	0 ha (0 ac)	16,690 ha (41,241 ac)	0 ha (0 ac)	18,191 ha (44,951 ac)
Riverside	223 ha (550 ac)	0.8 ha (2 ac)	3,543 ha (8,756 ac)	465 ha (1,149 ac)	4,232 ha (10,457 ac)
Total	1,724 ha (4,260 ac)	0.8 ha (2 ac)	20,233 ha (49,997 ac)	465 ha (1,149 ac)	22,423 ha (55,408 ac)

* Federal lands include Bureau of Land Management, Department of Defense, and National Forest.

Critical Habitat Unit 1: Santa Ana River

The area proposed for critical habitat within the Santa Ana River watershed is 4,886 ha (12,074 ac). At the time of the final rule, we identified approximately 2,813 ha (6,949 ac) of suitable and occupied San Bernardino kangaroo rat habitat within the Santa Ana River flood plain. Braden and McKernan (2000) provided new information about the range and habitat affinities, including alluvial soils and vegetative cover, of the San Bernardino kangaroo rat, which indicate that the habitat used within the flood plain is larger than previously thought. Therefore, we have identified new areas of occupation and lands that are essential for maintaining habitat connectivity that were not described in the final rule. Unit 1 includes a section of Mill Creek (not discussed in the final rule) because of its contribution to the fluvial dynamics of the Santa Ana River flood plain, which is particularly important since the construction of the Seven Oaks Dam. In the final rule, only 8 ha (20 ac) along City Creek were identified as occupied. In the proposed critical habitat, Unit 1 encompasses occupied habitat along City Creek.

Unit 1, located in San Bernardino County, includes the Santa Ana River and portions of City, Plunge, Mill, and San Timoteo creeks. Bounded by Seven Oaks Dam to the northeast, the area includes San Bernardino National Forest lands and portions of the cities of San Bernardino, Redlands, Highland, and Colton. Although Seven Oaks Dam impedes sediment transport and reduces the magnitude, frequency, and extent of flood events, the system still retains partial fluvial dynamics because contributions from Mill Creek are not impeded by a dam or debris basin.

A large tract of undeveloped land in San Bernardino National Forest is partially within and adjacent to the northern and eastern portions of this critical habitat unit. In addition, Unit 1 contains upland refugia and tributaries (i.e., City, Plunge, and San Timoteo creeks) that are occupied by the species, active hydrological channels, flood

plain terraces, and areas of habitat immediately adjacent to flood plain terraces.

Unit 1 contains the Woolly-Star Preservation Area (WSPA), a section of the flood plain downstream of Seven Oaks Dam that was preserved by the flood control districts of Orange, Riverside, and San Bernardino counties. The WSPA was established in 1988 by the U.S. Army Corps of Engineers (Corps) in an attempt to minimize the effects of Seven Oaks Dam on the federally endangered Santa Ana River woolly-star (*Eriastrum densifolium* ssp. *sanctorum*) along the Santa Ana River. Approximately 309 hectares (764 acres) of alluvial fan scrub in the wash near the low-flow channel of the river were designated for preservation as mitigation because these sections of the wash were thought to have the highest potential to maintain the hydrology necessary for the periodic regeneration of early phases of alluvial fan sage scrub. Approximately 80 ha (200 ac) of the WSPA appear to be habitat for the San Bernardino kangaroo rat (Service unpub. GIS maps, 1997).

We are now coordinating with the Bureau of Land Management, Corps, San Bernardino Valley Conservation District, Sun West Materials, Robertson's Ready Mix, and other local interests in an attempt to establish the Santa Ana River Wash Conservation Area. The objective of these discussions is to consolidate a large block of alluvial fan scrub occupied by three federally endangered species, the San Bernardino kangaroo rat, Santa Ana River woolly-star, and slender-horned spineflower (*Dodecahema leptoceras*); and one federally threatened species, the coastal California gnatcatcher (*Polioptila californica californica*). The area is envisioned to include an Area of Critical Environmental Concern or ACEC (see below) and the Corps' mitigation lands for the Santa Ana River woolly-star (i.e., WSPA). This cooperative agreement would reconfigure and consolidate sand and gravel mining operations in this unit to reduce adverse effects to these

listed species and remaining alluvial fan scrub communities.

In 1994, the Bureau of Land Management designated three parcels in the Santa Ana River, a total of 304 ha (760 ac), as an ACEC. The primary goal in designation was to protect and enhance the habitat of federally listed plant species occurring in the area while providing for the administration of existing valid rights. Although the establishment of this ACEC was important in regard to conservation of sensitive species and communities in this area, the administration of valid existing rights conflicts with the Bureau of Land Management's conservation abilities. Existing rights include a withdrawal of Federal lands for water conservation through an act of Congress on February 20, 1909 (Public, No. 248). The entire ACEC is included in this withdrawn land and may be used for water conservation measures such as the construction of percolation basins. These lands are not managed specifically for the San Bernardino kangaroo rat.

Critical Habitat Unit 2: Lytle and Cajon Creeks

Unit 2, which encompasses approximately 3,845 ha (20,621 ac) in San Bernardino County and includes the northern extent of this species' remaining distribution, contains habitat along and between Lytle and Cajon Creeks from the point that the creeks emanate from canyons within San Bernardino National Forest to flood control channels downstream. Unit 2 includes alluvial fans, flood plain terraces, and historic braided river channels. Alluvial sage scrub and other vegetation types that provide habitat for San Bernardino kangaroo rat occur on terraces and adjacent areas with sandy soils. Unit 2 includes Glen Helen Regional Park and portions of Muscoy.

McKernan (*in litt.* 1999) provided new information about the historic distribution, range, habitat affinities, and evidence of historic and current occupation by the San Bernardino

kangaroo rat in the western portion of this unit. At the time of listing, the Lytle-Cajon area was thought to contain approximately 3,280 ha (8,107 ac) of occupied habitat. Since the time of listing, a large historical fluvial breakout zone extending southwest from Lytle Creek and including the Etiwanda Fan (see Unit 4) has been recognized and data have been collected indicating that the species occupies a wider range of alluvial soils and vegetative cover than previously known (McKernan *in litt.* 1999). These areas are essential because of the presence of major populations of the species and habitat connectivity.

The hydro-geomorphological processes that apparently rejuvenate and maintain the dynamic mosaic of alluvial fan sage scrub are still largely intact in Lytle and Cajon Creeks (*i.e.*, stream flows are not impeded by dams or debris basins), and the remaining habitat allows dispersal between these two drainages, which is important for genetic exchange. Unit 2 is adjacent to large tracts of undeveloped land and contains upland areas occupied by the species.

The CalMat conservation bank was established in 1996 and 1997 to help conserve populations of 24 species associated with alluvial fan scrub, including the Santa Ana River woolly-star, San Bernardino kangaroo rat, and coastal California gnatcatcher in the Cajon Creek area. This conservation bank comprises approximately 244 ha (610 ac). We are working to ensure that lands within this conservation bank are purchased by the year 2006, when interim protection under a 10-year conservation easement ends. Such a purchase would contribute to the protection of more than 560 ha (1400 ac) in this area when combined with the CalMat preservation area and mitigation lands for the development of the County of San Bernardino Sheriff's training facility. These lands could form the nucleus for a larger reserve to protect the San Bernardino kangaroo rat and other listed species in this area.

Critical Habitat Unit 3: San Jacinto River-Bautista Creek

Unit 3 encompasses approximately 4,089 ha (10,104 ac) in Riverside County and includes portions of San Bernardino National Forest, Soboba Reservation, Bautista Creek, and areas along the San Jacinto River in the vicinity of San Jacinto, Hemet, and Valle Vista. This unit, which represents the southern extent of the known distribution of the species, is adjacent to San Bernardino National Forest and contains occupied upland refugia.

The species is primarily restricted to a channelized flood plain, but occupies areas outside flood control berms and westward along the river into the San Jacinto Valley and foothills of the Badlands. All lands within Riverside County proposed for designation as San Bernardino kangaroo rat critical habitat are within the planning area of the Western Riverside MSHCP.

At the time of listing, we identified approximately 547 ha (1,352 ac) of suitable and occupied San Bernardino kangaroo rat habitat within the Santa Jacinto River flood plain. Additional areas along the San Jacinto River have been identified as essential for the conservation of the San Bernardino kangaroo rat based on additional information on occupied areas, better understanding of the habitat needs and vegetation types, need for habitat connectivity, and maintenance of hydrological conditions. New information indicates that the habitat occupied within the flood plain by the San Bernardino kangaroo rat is larger than previously thought (McKernan, *in litt.* 1999, Braden and McKernan 2000), and includes areas of higher vegetation density. We have also received additional information on the distribution of the subspecies within the watershed (*e.g.*, Bautista Creek), and are including areas essential for maintaining habitat connectivity along the flood plain. This additional information further supports the identification of this area as a major concentration of San Bernardino kangaroo rat in the final listing rule and the importance of this area for the long-term conservation for this species.

Critical Habitat Unit 4: Etiwanda Alluvial Fan and Wash

Unit 4, which encompasses approximately 3,845 ha (9,502 ac), is located in western San Bernardino County and represents the approximate westernmost extent of the known range of the San Bernardino kangaroo rat. Within the northern boundary of the unit are portions of San Bernardino National Forest. Unit 4 includes lands within and between the active hydrological channels of Deer, Day, Etiwanda, and San Sevaine creeks. A large alluvial fan, flood plains, and terraces occur throughout the unit. Soils are primarily sandy or sandy loam and support alluvial fan sage scrub. Unit 4 includes portions of the cities of Rancho Cucamonga, Fontana, Rialto, and Ontario; and the 314-ha (760-ac) North Etiwanda Preserve.

McKernan (*in litt.* 1999) provided new information about the historic distribution, range, habitat affinities,

and evidence of historic and current occupation by the San Bernardino kangaroo rat along the western half of the Lytle Creek Fan, including the Etiwanda Fan and Wash. The Etiwanda area was thought to contain approximately 2 ha (5 ac) of occupied habitat for the species at the time of listing. Since then, a large historical fluvial breakout zone in southwestern San Bernardino County, extending southwest from Lytle Creek and including the Etiwanda Fan, has been recognized, research has verified occupation, museum specimens that were collected in the area have been conclusively identified as the San Bernardino kangaroo rat, and data have been collected indicating that the species occupies a wider range of alluvial soils and vegetative cover (McKernan *in litt.* 1999).

Proposed lands contain a remnant population of the species and upland refugia from catastrophic flooding. Neither dams nor debris basins exist at the mouths of East Etiwanda and San Sevaine creeks, enabling natural fluvial processes to maintain favorable habitat conditions on the upper alluvial fan and in other portions of the critical habitat unit. McKernan (*in litt.* 1999) states that areas within historic flood regimes (such as western Lytle Creek fan including the Etiwanda wash) should be given equal priority as the major population areas of the Santa Ana River and Cajon Wash. Additional areas along the Etiwanda Alluvial Fan and Wash have been identified as essential for the conservation of the San Bernardino kangaroo rat based on additional information on occupied areas, better understanding of the habitat needs and vegetation types, need for habitat connectivity, and maintenance of hydrological conditions.

Critical Habitat Unit 5: Reche Canyon

Unit 5 encompasses approximately 129 ha (319 ac) in and around Reche Canyon in San Bernardino County and is directly south of and nearly adjacent to Unit 1. Reche Canyon, the type locality for the San Bernardino kangaroo rat (the geographic location from which a type specimen was collected), still contains occupied habitat for the species, including active waterways, flood plain terraces, and sage scrub. In the final rule, we estimated that 2 ha (5 ac) of habitat were occupied by the San Bernardino kangaroo rat in this area. The proposed critical habitat includes an additional 127 ha (314 ac) of habitat, encompassing known occupied areas and additional areas within Reche Canyon based on a better understanding of the habitat needs and vegetation

types and maintenance of hydrological conditions needed to sustain alluvial scrub vegetation.

Unit 5 supports a remnant population of the San Bernardino kangaroo rat, and contains lands that function as refugia for the species. Potential exists for species expansion into the Badlands, which could reconnect this population with that of Unit 3 (San Jacinto).

Critical Habitat Unit 6: Jurupa Hills-South Bloomington

Unit 6 encompasses approximately 1,128 ha (2788 ac), and includes the Jurupa Hills and area eastward to and including the south portion of the city of Bloomington. The majority of Unit 6 is located in San Bernardino County (985 ha (2,435 ac)), with a small portion (143 ha (353 ac)) occurring in northern Riverside County.

In the final rule, we estimated that less than 1 ha (2 ac) of habitat in this area was occupied by the San Bernardino kangaroo. Unit 6 includes an additional 1,127 ha (2,786 ac) of habitat and encompasses areas essential for connectivity, which are necessary for dispersal.

Unit 6 is unique among the critical habitat units for this species, containing the last known example of remaining occupied habitat where sandy soils appear to be at least partially deposited by winds. In addition, the unit is completely outside of a flood plain, making it the only critical habitat unit for this species not at risk of catastrophic flooding.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out do not destroy or adversely modify critical habitat to the extent that the action appreciably diminishes the value of the critical habitat for the survival and recovery of the species. Individuals, organizations, States, local governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is designated or proposed. Regulations implementing this interagency cooperation provision of the Act are

codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer with 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. 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 must enter into consultation with us. Through this consultation, we would ensure that the permitted actions do not adversely modify critical habitat.

When we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we 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 Director believes would avoid resulting in 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. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinstate 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 conferencing with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy 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 a Federal agency. Formal conference reports on proposed critical habitat contain a biological opinion that is prepared according to 50 CFR 402.14, as if critical habitat were designated. We may adopt the formal conference report as the biological opinion when the critical habitat is designated, if no significant new information or changes in the action alter the content of the opinion (*see* 50 CFR 402.10(d)).

Activities on Federal lands that may affect the San Bernardino kangaroo rat or its 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 (Corps) under section 404 of the Clean Water Act, or some other Federal action, including funding (*e.g.*, Federal Highway Administration, Federal Aviation Administration, or Federal Emergency Management Agency) 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 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 destroy or adversely modify critical habitat include those that alter the primary constituent elements to an extent that the value of critical habitat for both the survival and recovery of the San Bernardino kangaroo rat 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 destroy or adversely modify critical habitat include, but are not limited to:

(1) Any activity that results in changes in the hydrology of the unit, including activities associated with flood control structures and operations; construction of levees, berms, and concrete channels; flooding; sediment, sand, or gravel removal, transfer, or deposition; grading; excavation; and construction or modification of bridges;

(2) Any activity that results in development or alteration of the landscape within or immediately adjacent to fluvial systems, including water diversion, reclamation, and recharge activities; agricultural

activities; urban and industrial development; water conservation activities; off-road activity; and mechanized land clearing or disking;

(3) Any activity that results in changes to the water quality or quantity to an extent that habitat becomes unsuitable to support the San Bernardino kangaroo rat;

(4) Any activity that could lead to the introduction, expansion, or increased density of exotic plant or animal species, urban-associated domestic animals (e.g., cats), or livestock into San Bernardino kangaroo rat habitat;

(5) Any activity that results in appreciable detrimental changes to the density or diversity of plant or animal populations in San Bernardino kangaroo rat habitat, such as grubbing, grading, overgrazing, mining, disking, off-road vehicle use, or the application of herbicides, rodenticides, or other pesticides; and,

(6) Any activity that could result in an appreciably decreased habitat value or quality through indirect effects, such as noise, edge effects, night-time lighting, or fragmentation.

To properly portray the effects of critical habitat designation, we must first compare the section 7 requirements for actions that may affect critical habitat with the requirements for actions that may affect a listed species. Section 7 prohibits actions funded, authorized, or carried out by Federal agencies from jeopardizing the continued existence of a listed species or destroying or adversely modifying the listed species' critical habitat. Actions likely to "jeopardize the continued existence" of a species are those that would appreciably reduce the likelihood of the species' survival and recovery. Actions likely to "destroy or adversely modify" critical habitat are those that would appreciably reduce the value of critical habitat for the survival and recovery of the listed species.

Common to both definitions is an appreciable detrimental effect on both survival and recovery of a listed species. Given the similarity of these definitions, actions likely to destroy or adversely modify critical habitat would almost always result in jeopardy to the species concerned, particularly when the area of the proposed action is occupied by the species concerned. In those cases, critical habitat provides little additional protection to a species, and the ramifications of its designation are few or none. Designation of critical habitat in areas occupied by the San Bernardino kangaroo rat is not likely to result in a regulatory burden above that already in place due to the presence of the listed species. In addition, the Corps requires

review of most or all projects requiring permits in all fluvial systems, whether San Bernardino kangaroo rats are known to be present. If occupied habitat becomes unoccupied in the future, critical habitat may provide a limited benefit in such cases.

Designation of critical habitat could affect Federal agency activities. Federal agencies already consult with the Service on activities in areas known to be occupied by the species to ensure that their actions do not jeopardize the continued existence of the species. These actions include, but are not limited to:

(1) Regulation of activities affecting waters of the United States by the Corps under section 404 of the Clean Water Act;

(2) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities;

(3) Regulation of airport construction and/or improvement activities by the Federal Aviation Administration;

(4) Military activities on applicable DOD lands;

(5) Licensing of construction of communication sites by the Federal Communications Commission;

(6) Funding of activities by the U.S. Environmental Protection Agency, Department of Energy, or any other Federal agency.

If you have questions regarding whether specific activities will likely constitute destruction or 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 inquiries about prohibitions and permits may be addressed to the Division of Endangered Species, U. S. Fish and Wildlife Service, 911 NE 11th Avenue, Portland, Oregon 97232-4181 (telephone 503-231-6158; facsimile 503-231-6243).

Relationship to Habitat Conservation Plans and Other Planning Efforts

Section 10(a)(1)(B) of the ESA authorizes the Service to issue to non-Federal entities a permit for the incidental take of endangered and threatened species. This permit allows a non-Federal landowner to proceed with an activity that is legal in all other respects, but that results in the incidental taking of a listed species. The ESA defines incidental take as take that is "incidental to, and the purpose of, the carrying out of an otherwise lawful activity." A habitat conservation plan, or HCP, must accompany an application for an incidental take permit. The purpose of the HCP is to describe and ensure that the effects of the permitted

action on covered species are adequately minimized and mitigated and that the action does not appreciably reduce the survival and recovery of the species.

The State of California instituted a conservation planning program parallel to the Federal HCP program. Under the Natural Community Conservation Planning Act of 1991, a NCCP is a plan for the conservation of natural communities that takes an ecosystem approach and encourages cooperation between private and government interests. The Service and the California Department of Fish and Game work with applicants to develop plans that serve both as an HCP under the Federal Endangered Species Act as well as an NCCP under the State's NCCP Act. Much like a regional HCP, an NCCP identifies and provides for the regional or area-wide protection and perpetuation of plants, animals, and their habitats, while allowing compatible land use and economic activity. The initial focus of this program is coastal sage scrub. Within this program, the California Department of Fish and Game included the long-term conservation of alluvial scrub, which is in part occupied by the San Bernardino kangaroo rat. However, participation in NCCP is voluntary. San Bernardino and Riverside counties have signed planning agreements (memoranda of understanding (MOUs)) to develop multi-species plans that meet NCCP criteria, but have not enrolled in the NCCP program in the interim.

We are coordinating with the Bureau of Land Management, Corps, San Bernardino Valley Conservation District, Sun West Materials, Robertson's Ready Mix, and other local interests in an attempt to establish the Santa Ana River Wash Conservation Area. The objective of these discussions is to consolidate a large block of alluvial fan scrub communities occupied by four federally listed species, but as yet, we have not completed this process.

Since there are no approved HCPs/NCCPs with coverage for the San Bernardino kangaroo rat or other conservation plans that are currently completed, we did not propose to exclude any lands from this critical habitat designation on this basis.

In the event that future HCPs covering the San Bernardino kangaroo rat are developed within the boundaries of designated critical habitat, we will work with applicants to ensure that the HCPs provide for protection and management of habitat areas essential for the conservation of the San Bernardino kangaroo rat by either directing development and habitat modification

to nonessential areas or appropriately modifying activities within essential habitat areas so that such activities will not adversely modify the primary constituent elements. The HCP development process provides an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by the San Bernardino kangaroo rat. 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 blocks.

We will provide technical assistance and work closely with applicants throughout the development of future HCPs to identify lands essential for the long-term conservation of the San Bernardino kangaroo rat and appropriate management for those lands. The take minimization and mitigation measures provided under these HCPs are expected to protect the essential habitat lands designated as critical habitat in this rule. If an HCP that addresses the San Bernardino kangaroo rat as a covered species is ultimately approved, the Service will reassess the critical habitat boundaries in light of the HCP. The Service will seek to undertake this review when the HCP is approved, but funding constraints may influence the timing of such a review.

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 will conduct an analysis of the economic impacts of designating these areas as critical habitat prior to a final determination. When completed, we will announce the availability of the draft economic analysis with a notice in the **Federal Register**, and we will open a comment period at that time.

Public Comments Solicited

We intend for any final action resulting from this proposal to be as accurate and as effective as possible. Therefore, we solicit comments or suggestions from the public, other concerned governmental agencies, the

scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act, including whether the benefits of designation will outweigh any threats to the species due to designation;

(2) Specific information on the amount and distribution of the San Bernardino kangaroo rat habitat, and what habitat is essential to the conservation of the species and why;

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

(4) Any foreseeable economic or other impacts resulting from the proposed designation of critical habitat, in particular, any impacts on small entities or families; and,

(5) Economic and other values associated with designating critical habitat for the San Bernardino kangaroo rat, such as those derived from non-consumptive uses (e.g., hiking, camping, bird-watching, enhanced watershed protection, improved air quality, increased soil retention, "existence values," and reductions in administrative costs).

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods.

1. You may submit written comments and information to the Field Supervisor, Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2730 Loker Avenue West, Carlsbad, California 92008.

2. You may hand-deliver written comments to our Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2730 Loker Avenue West, Carlsbad, California.

3. If you would like to submit comments by e-mail, please submit e-mail comments as an ASCII file format and avoid the use of special characters and encryption. You may send comments by electronic mail (e-mail) to FW1CFWO_commat@fws.gov. Please include "Attn: RIN 1018-AE59" and your name and return address in your e-mail message. Please note that the e-mail address will be closed out at the termination of the public comment period. If you do not receive a confirmation from the system that we have received your e-mail message, contact us by calling our Carlsbad Fish and Wildlife Office at phone number 760-431-9440.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Respondents may request that we withhold their home address, which we will honor to the extent allowable by law. There also may be circumstances in which we would withhold a respondent's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this request prominently at the beginning of your comment. However, we will not consider anonymous comments. To the extent consistent with applicable law, we will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

Peer Review

In accordance with our policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure listing decisions are based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the **Federal Register**. We will invite these peer reviewers to comment during the public comment period on the specific assumptions and conclusions regarding the proposed designation of critical habitat. We will consider all comments and information received during the 60-day comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests for public hearings must be made at least 15 days prior to the close of the public comment period. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings in the **Federal Register** and local newspapers at least 15 days prior to the first hearing.

Clarity of the Rule

Executive Order 12866 requires each agency to write regulations/notices that are easy to understand. We invite your comments on how to make proposed rules easier to understand including answers to questions such as the following:

- (1) Are the requirements in the document clearly stated?
- (2) Does the proposed rule contain technical language or jargon that interferes with the clarity?
- (3) Does the format of the proposed rule (grouping and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity?
- (4) Is the description of the proposed rule in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposed rule? What else could we do to make the proposed rule easier to understand?

Send a copy of any comments that concern how we could make this notice easier to understand to the Field Supervisor, Carlsbad Fish and Wildlife Office (see **ADDRESSES**).

Required Determinations

Regulatory Planning and Review

This document is a significant rule and has been reviewed by the Office of Management and Budget (OMB) in accordance with Executive Order 12866.

(a) This rule, as proposed, will not have an annual economic effect of \$100 million or more or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. The San Bernardino

kangaroo rat was listed as an endangered species in 1998. Since that time, we have conducted ten formal section 7 consultations with other Federal agencies to ensure that their actions would not jeopardize the continued existence of the species.

The areas proposed as critical habitat are within the geographic range occupied by the San Bernardino kangaroo rat. Under the Act, critical habitat may not be adversely modified by a Federal agency action; it does not impose any restrictions on non-Federal persons unless they are conducting activities funded or otherwise sponsored or permitted by a Federal agency (see Table 2 below). Section 7 requires Federal agencies to ensure that they do not jeopardize the continued existence of the species. Based upon our experience with the species and its needs, we conclude that any Federal action or authorized action that could potentially cause adverse modification of designated critical habitat would currently be considered as "jeopardy" under the Act. Accordingly, the designation of areas within the geographic range occupied by the San Bernardino kangaroo rat has little, if any, incremental impacts on what actions may or may not be conducted by Federal agencies or non-Federal persons that receive Federal authorization or funding. Non-Federal persons who do not have a Federal "sponsorship" of their actions are not restricted by the designation of critical habitat although they continue to be bound by the provisions of the Act concerning "take" of the species.

(b) This rule, as proposed, will not create inconsistencies with other agencies' actions. As discussed above, Federal agencies have been required to ensure that their actions do not jeopardize the continued existence of the San Bernardino kangaroo rat since the listing in 1998. The prohibition against adverse modification of critical habitat is not expected to impose any restrictions in addition to those that now exist because all designated critical habitat is within the geographic range occupied by the San Bernardino kangaroo rat. Because of the potential for impacts on other Federal agency activities, we will continue to review this action for any inconsistencies with other Federal agency actions.

(c) This rule, as proposed, will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. Federal agencies are required to ensure that their activities do not jeopardize the continued existence of the species, and, as discussed above, we do not anticipate that the adverse modification prohibition (resulting from critical habitat designation) will have any incremental effects in areas of occupied habitat. We will review the effects of this proposed action on Federal agencies or non-Federal persons that receive Federal authorization or funding in the area of critical habitat.

(d) This rule will not raise novel legal or policy issues. The proposed rule follows the requirements for determining critical habitat contained in the Endangered Species Act.

TABLE 2.—IMPACTS OF SAN BERNARDINO KANGAROO RAT LISTING AND CRITICAL HABITAT DESIGNATION

Categories of Activities	Activities Potentially Affected by Species Listing Only ¹	Additional Activities Potentially Affected by Critical Habitat Designation ²
Federal Activities Potentially Affected. ³	Activities the Federal Government carries out such as removing, degrading, or destroying San Bernardo kangaroo rat habitat (as defined in primary constituent elements discussion), whether by burning or mechanical, chemical, or other means (e.g., grubbing, grading, flooding, discing, flood control, off-road vehicle use, overgrazing, construction, road building, mining, herbicide and pesticide application, etc.) and appreciably decreasing habitat value or quality through indirect effects (e.g., noise, edge effects, night-time lighting, invasion of exotic plants or animals, or fragmentation).	May result in a limited increase in the number of section 7 consultations.
Private Activities Potentially Affected. ⁴	Activities such as removing, degrading, or destroying San Bernardino kangaroo rat habitat (as defined in the primary constituent elements discussion), whether by burning or mechanical, chemical, or other means e.g., grubbing, grading, flooding, discing, flood control, off-road vehicle use, overgrazing, construction, road building, mining, herbicide and pesticide application, etc.) an appreciably decreasing habitat value or quality through indirect effects (e.g., noise, edge effects, night-time lighting, invasion of exotic plants or animals, or fragmentation that require a Federal action (permit, authorization, or funding).	May result in a limited increase in the number of section 7 consultations.

¹ This column represents the activities potentially affected by listing the San Bernardino kangaroo rat as an endangered species (Jan. 27, 1998; 63 FR 3835) under the Endangered Species Act.

² This column represents the activities potentially affected by the critical habitat designation in addition to those activities potentially affected by listing the species.

³ Activities initiated by a Federal agency.

⁴ Activities initiated by a private entity that may need Federal authorization or funding.

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

In the economic analysis (under section 4 of the Act), we will determine whether designation of critical habitat will have a significant effect on a substantial number of small entities. As discussed under Regulatory Planning and Review above, this rule, as proposed, is not expected to result in any restrictions in addition to those currently in existence for areas of occupied habitat. As indicated on Table 1 (see Proposed Critical Habitat Designation section), we designated property owned by Federal, State, and local governments, and private property. Within these areas, the types of Federal actions or authorized activities that we have identified as potential concerns are:

- (1) Regulation of activities affecting waters of the United States by the Corps under section 404 of the Clean Water Act;
- (2) Regulation of water flows, damming, diversion, and channelization by Federal agencies;
- (3) Regulation of grazing, mining, and recreation by the Bureau of Land Management or U.S. Forest Service;
- (4) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities;
- (5) Regulation of airport construction or improvement activities by the Federal Aviation Administration;
- (6) Hazard mitigation and post-disaster repairs funded by the Federal Emergency Management Agency;
- (7) Construction of communication sites licensed by the Federal Communications Commission; and
- (8) Activities funded by the U.S. Environmental Protection Agency, U.S. Department of Energy, or any other Federal agency.

Many of these activities sponsored by Federal agencies within the proposed critical habitat units are carried out by small entities (as defined by the Regulatory Flexibility Act) through contract, grant, permit, or other Federal authorization. As discussed above, these actions are currently required to comply with the listing protections of the Act, and the designation of critical habitat is not anticipated to have any additional effects on these activities in areas of habitat occupied by the species. For actions on non-Federal property that do not have a Federal connection (such as funding or authorization), the current restrictions concerning take of the species remain in effect, and this rule will have no additional restrictions.

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

In the economic analysis, we will determine whether designation of critical habitat will cause (a) any 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 in the economic analysis, 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. As discussed above, we anticipate that the designation of critical habitat will have little, if any, additional effects on these activities in areas of critical habitat occupied by the species. We expect little additional effect for the area of proposed critical habitat.

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, as proposed, 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 any programs having Federal funds, permits, or other authorized 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 proposed critical habitat.

(b) This rule, will not produce a Federal mandate of \$100 million or greater in any year, that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments.

Takings

In accordance with Executive Order 12630, the rule does not have significant takings implications. A takings implication assessment is not required. As discussed above, the designation of critical habitat affects only Federal agency actions. The rule will not increase or decrease the current restrictions on private property concerning take of the San Bernardino kangaroo rat. Due to current public knowledge of the species protection, the prohibition against take of the species

both within and outside of the designated areas, and the fact that critical habitat provides no incremental restrictions in areas of occupied critical habitat, we do not anticipate that property values will be affected by the critical habitat designation. Critical habitat designation does not preclude development of habitat conservation plans and issuance of incidental take permits. Landowners in areas that are included in the designated critical habitat will continue to have opportunity to utilize their property in ways consistent with the survival of the San Bernardino kangaroo rat.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. We will coordinate any future designation of critical habitat for the San Bernardino kangaroo rat with the appropriate State agencies. The designation of critical habitat in areas currently occupied by the San Bernardino kangaroo rat imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have 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 survival of the species are specifically identified. While making 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 Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We propose critical habitat in accordance with the provisions of the Act, and plan public hearings on the proposed designation during the comment period if requested. The rule uses standard property descriptions and identifies the primary constituent elements within the proposed units to assist the public in understanding the habitat needs of the San Bernardino kangaroo rat.

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

This rule references permits for HCPs which contain information collection activity. The Fish and Wildlife Service has OMB approval for the collection under OMB Control Number 1018-0094. The Service 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 and/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. We published a notice outlining our reasons for this determination on October 25, 1983 (48 FR 49244). This proposed rule 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) and 512 DM 2, we understand that federally recognized Tribes must be related to on a Government-to-Government basis. We determined that there are approximately 465 ha (1,149 ac) of Tribal lands essential for the conservation of the San Bernardino kangaroo rat along the western boundary of the Soboba Indian Reservation in Riverside County. Therefore, we are proposing to designate critical habitat for the San Bernardino kangaroo rat on only this portion of Tribal lands.

In complying with our tribal trust responsibilities, we must communicate with all tribes potentially affected by the designation. Therefore, we are soliciting information during the comment period on potential effects to tribes or tribal resources that may result from critical habitat designation.

References Cited

You may request a complete list of all references cited in this proposed rule from the Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

Author

The primary author of this proposed rule is Nancy Kehoe, Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

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

PART 17—[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 § 17.11(h) revise the entry for "Kangaroo rat, San Bernardino" under "MAMMALS" to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *
(h) * * *

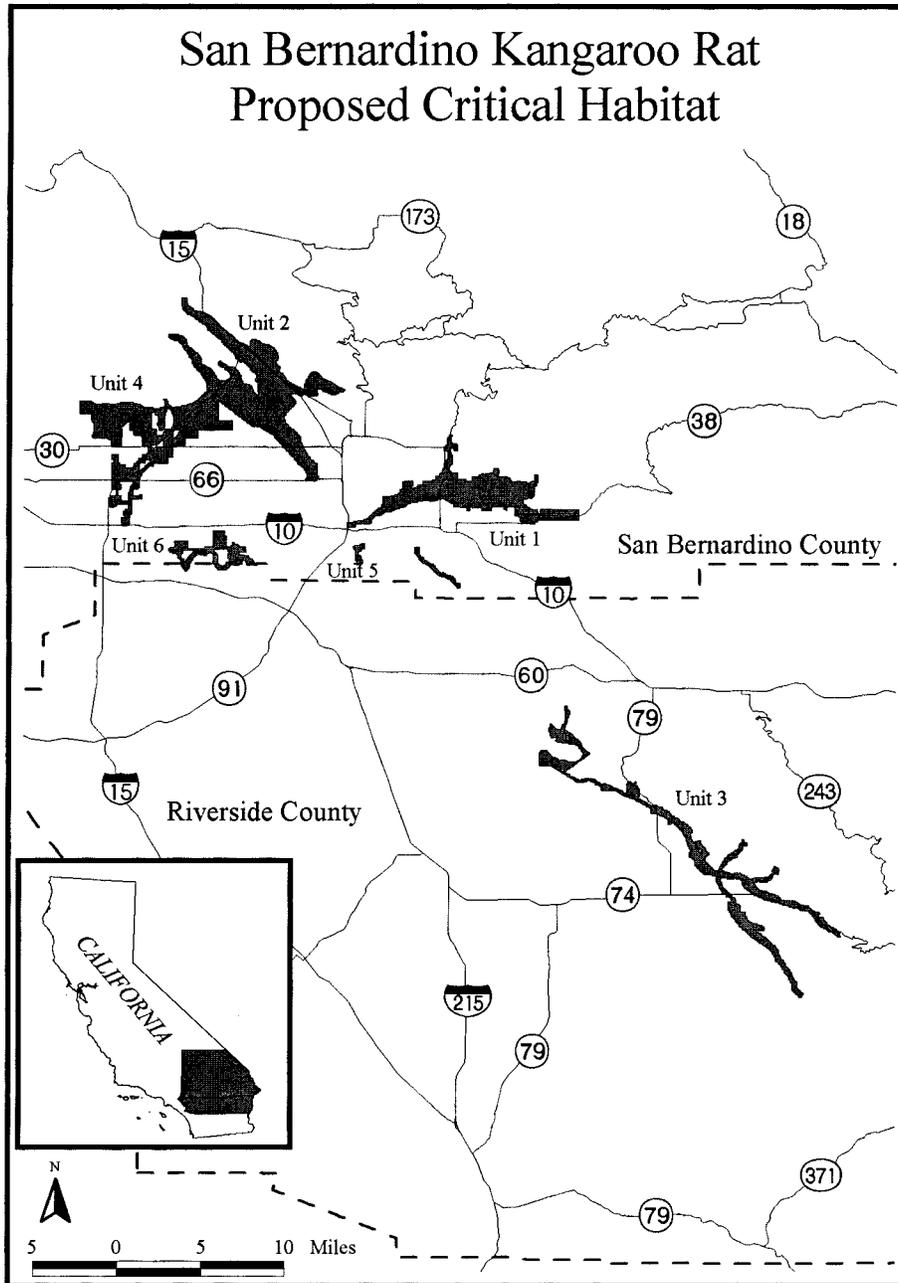
Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
* Kangaroo rat, San Bernardino Merriam's.	* <i>Dipodomys merriami parvus.</i>	* U.S.A. (CA)	* Entire	E	* 632E, 645	* 17.95(a)	* NA
* * * * *	* * * * *	* * * * *	* * * * *		* * * * *		* * * * *

3. Amend § 17.95(a) by adding critical habitat for the San Bernardino kangaroo rat (*Dipodomys merriami parvus*) in the same alphabetical order as this species occurs in § 17.11 (h).

§ 17.95 Critical habitat—fish and wildlife.

(a) Mammals.
* * * * *

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*).
1. Critical Habitat Units are depicted for San Bernardino and Riverside counties, California, on the maps below.



2. Within these areas, the primary constituent elements for the San Bernardino kangaroo rat are those habitat components that are essential for the primary biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering. The primary constituent elements are found in areas influenced by historic and/or current geomorphological and hydrological processes and areas of wind-blown sand that support alluvial sage scrub vegetation or a mosaic of alluvial sage scrub and associated vegetation types (e.g., coastal sage scrub,

chaparral) within San Bernardino and Riverside counties. Primary constituent elements associated with the biological needs of dispersal are also found in areas that provide connectivity or linkage between or within larger core areas, including open space and disturbed areas containing introduced plant species.

Primary constituent elements include:

- (1) Dynamic geomorphological and hydrological processes typical of fluvial systems within the historical range of the animal, i.e., areas that are within active and historical flood regimes including river, creek, stream, and wash channels; alluvial fans; flood plains;

flood-control berms and lands adjacent to them; flood plain benches and terraces; and historic braided channels;

- (2) Historical and current alluvial processes within the historical range of the animal;

- (3) Alluvial sage scrub and associated vegetation, such as coastal sage scrub and chamise chaparral. Common plant species include: Scalebroom (*Lepidospartum squamatum*), California buckwheat (*Eriogonum fasciculatum*), yerba santa (*Eriodictyon* spp.), our Lord's candle (*Yucca whipplei*), sugar bush (*Rhus ovata*), lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), California juniper (*Juniperus*

californicus), mulefat (*Baccharis salicifolia*), showy penstemon (*Penstemon spectabilis*), golden aster (*Heterotheca villosa*), tall buckwheat (*Eriogonum elongatum*), prickly pear and cholla (*Opuntia* spp.), chamise (*Adenostoma fasciculatum*), popcorn flower (*Plagiobothrys* spp.), and native and nonnative grasses.

(4) Sand, loam, or sandy loam soils within the historical range of the animal;

(5) Upland areas that may provide refugia from environmental or demographic stochastic and catastrophic events; and

(6) Moderate to low degree of human disturbance to habitat within the species' historical range, *i.e.*, lands within or immediately adjacent to flood plain terraces that have suitable habitat for the species and areas within 50 m (150 ft) of currently suitable San Bernardino kangaroo rat habitat, such as agricultural lands that are not disked annually, out-of-production vineyards, margins of orchards, areas of active or inactive industrial or resource extraction activities, and urban/wildland interfaces.

3. Existing features and structures within the boundaries of the mapped units, such as buildings, roads, railroads, airports, other paved areas, lawns, other urban landscaped areas, and other features not containing primary constituent elements are not considered critical habitat.

Map Unit 1: Santa Ana River and San Timoteo Canyon, San Bernardino County, California. From USGS 1:24,000 quadrangle maps Harrison Mountain (1980), Yucaipa (1988), Redlands (1980), and San Bernardino South (1980), California, lands in the Santa Ana Wash bounded by the following Universal Transverse Mercator (UTM) North American Datum 1927 (NAD27) coordinates (X, Y): 482500, 3778300; 482700, 3778300; 482700, 3778200; 482800, 3778200; 482800, 3778100; 482700, 3778100; 482700, 3777500; 482800, 3777500; 482800, 3777400; 483200, 3777300; 483300, 3777300; 483300, 3776700; 483000, 3776700; 483000, 3776800; 482900, 3776800; 482900, 3776900; 482800, 3776900; 482800, 3777000; 482600, 3777000; 482600, 3776600; 482700, 3776600; 482800, 3776300; 482800, 3776300; 482800, 3775400; 482600, 3775400; 482600, 3775200; 482500, 3775200; 482500, 3774800; 482700, 3774800; 482700, 3774600; 483300, 3774600; 483300, 3774000; 484100, 3774000; 484100, 3773800; 484700, 3773800; 484700, 3774200; 485400, 3774200; 485400, 3774400; 485600, 3774400; 485600, 3774500;

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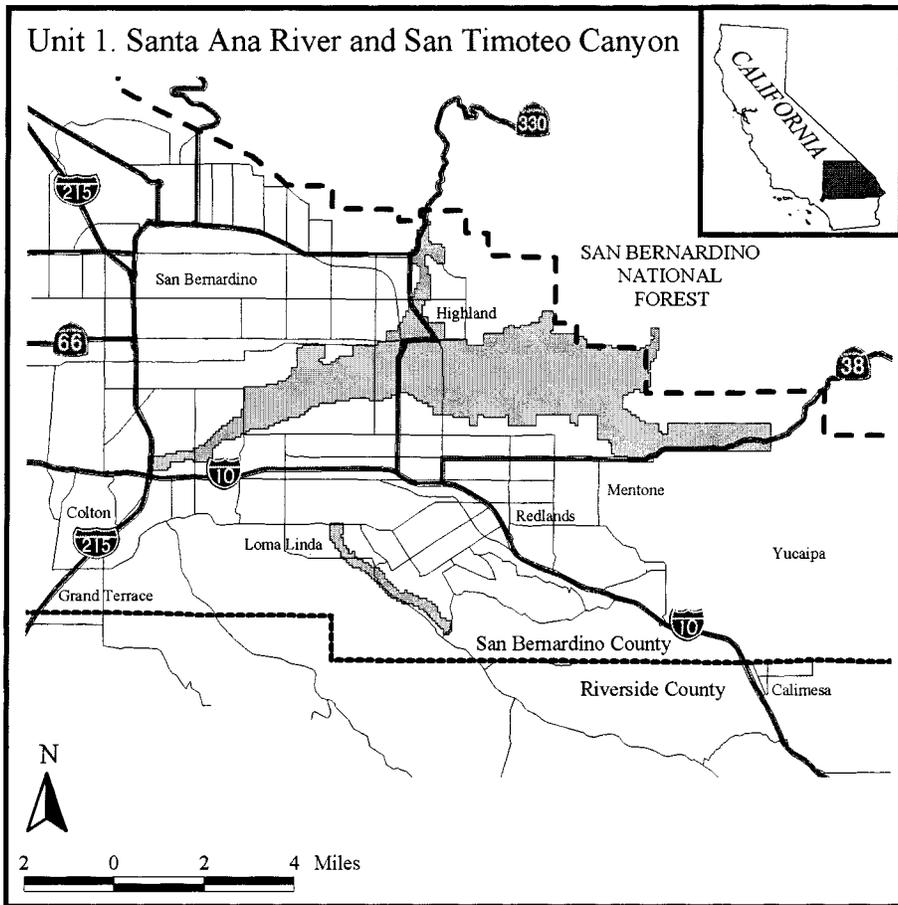
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Map Unit 2: Lytle and Cajon Creeks, San Bernardino County, California. From USGS 1:24,000 quadrangle maps San Bernardino South (1980), San Bernardino North (1988), Devore (1988), and Cajon (1988), lands bounded by the following UTM NAD27 coordinates (X, Y): 456700, 3791400; 457200, 3791400; 457200, 3790900; 457300, 3790900; 457300, 3790700; 457400, 3790700; 457400, 3790600; 457600, 3790600; 457600, 3790500; 457700, 3790500; 457700, 3790400; 457800, 3790400; 457800, 3790300; 457900, 3790300; 457900, 3790200; 458200, 3790200; 458200, 3790100; 458600, 3790100; 458600, 3790000; 458800, 3790000; 458800, 3789900; 459000, 3789900; 459000, 3789800; 459200, 3789800; 459200, 3789700; 459300, 3789700; 459300, 3789600; 459500, 3789600; 459500, 3789500; 459600, 3789500; 459600, 3789400; 459800, 3789400; 459800, 3789300; 459900, 3789300; 459900, 3789200; 460000, 3789200; 460000, 3789000; 460100, 3789000; 460100, 3788900; 460200, 3788900; 460200, 3788800; 460300, 3788800; 460300, 3788700; 460400, 3788700; 460400, 3788600; 460600, 3788600; 460600, 3788500; 460700, 3788500; 460700, 3788400; 460800, 3788400; 460800, 3788300; 461000, 3788300; 461000, 3788200; 461100, 3788200; 461100, 3788100; 461200, 3788100; 461200, 3788000; 461400, 3788000; 461400, 3787900; 461500, 3787900; 461500, 3787800; 461600, 3787800; 461600, 3787700; 461700, 3787700; 461700, 3787600; 461800, 3787600; 461800, 3787500; 461900, 3787500; 461900, 3787400; 462000, 3787400; 462000, 3787300; 462100, 3787300; 462100, 3787200; 462300, 3787200; 462300, 3787100; 462600, 3787100; 462600, 3787000; 462800, 3787000; 462800, 3786900; 463000, 3786900; 463000, 3786800; 463300, 3786800; 463300, 3786700; 463400, 3786700; 463400, 3786600; 463900, 3786600; 463900, 3786500; 464200, 3786500; 464200, 3786400; 464300, 3786400; 464300, 3786300; 464400, 3786300; 464400, 3786200; 464700, 3786200; 464700, 3786100; 465100, 3786100; 465100, 3786000; 465300, 3786000; 465300, 3785900; 465500, 3785900; 465500, 3785800; 465600, 3785800; 465600, 3785700; 465700, 3785700; 465700, 3785600; 465800, 3785600; 465800, 3785500; 465900, 3785500; 465900, 3785400; 465900, 3785300; 466000, 3785300; 466000, 3785200; 466000, 3785100; 466100, 3785100; 466100, 3785000; 466200, 3785000; 466200, 3784900; 466200, 3784800; 466200, 3784700; 466200, 3784600;

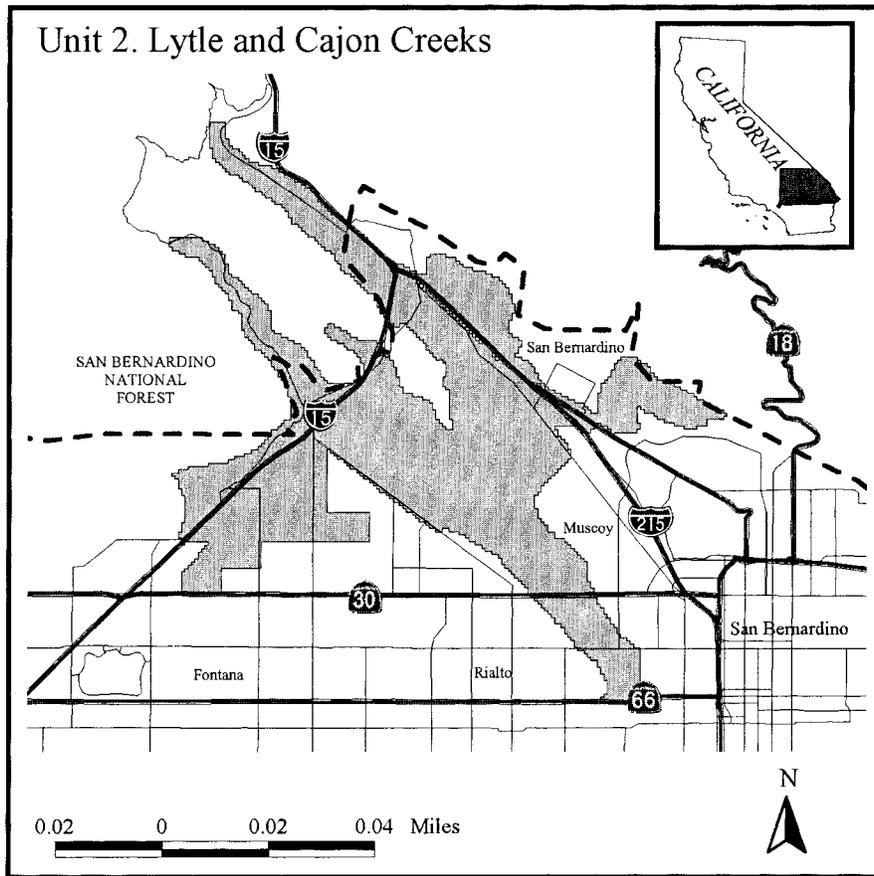
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Map Unit 3: San Jacinto River and Bautista Creek, Riverside County, California. From USGS quadrangle maps Blackburn Canyon (1988), Hemet (1979), Lake Fulmor (1988), San Jacinto (1979), Lakeview (1979), and El Casco (1979), California, land bounded by the following UTM NAD27 coordinates (X, Y): 506300, 3739000; 506300, 3739200; 506800, 3739200; 506800, 3738900; 506900, 3738900; 506900, 3738700; 507000, 3738700; 507000, 3738600; 507100, 3738600; 507100, 3738500; 507200, 3738500; 507200, 3738400; 507300, 3738400; 507300, 3738200; 507400, 3738200; 507400, 3738100; 507500, 3738100; 507500, 3738000; 507600, 3738000; 507600, 3737800; 507500, 3737800; 507500, 3737700; 507300, 3737700; 507300, 3737600; 507200, 3737600; 507200, 3737400; 507100, 3737400; 507100, 3737300; 507200, 3737200; 507300, 3737200; 507300, 3737100; 507400, 3737100; 507400, 3737000; 507500, 3737000; 507500, 3736900; 507600, 3736900; 507600, 3736800; 507700, 3736800; 507700, 3736700; 507800, 3736700; 507800, 3736600; 507900, 3736600; 507900, 3736500; 508000, 3736500; 508000, 3736400; 508100, 3736400; 508100, 3736300; 508500, 3736300; 508500, 3736500; 508600, 3736500; 508600, 3736700; 508700, 3736700; 508700, 3736900; 508800, 3736900; 508800, 3737100; 508900, 3737100; 508900, 3737200; 509000, 3737200; 509000, 3737400; 509100, 3737400; 509100, 3737500; 509200, 3737500; 509200, 3737600; 509300, 3737600; 509300, 3737700; 509400, 3737700; 509400, 3737800; 509500, 3737800; 509500, 3737900; 509700, 3737900; 509700, 3738000; 509800, 3738000; 509800, 3738100; 509900, 3738100; 509900, 3738200; 510100, 3738200; 510100, 3738300; 510300, 3738300; 510300, 3738400; 510400, 3738400; 510400, 3738700; 510500, 3738700; 510500, 3738900; 510600, 3738900; 510600, 3739000; 510700, 3739000; 510700, 3739300; 510900, 3739300; 510900, 3739200; 511000, 3739200; 511000, 3739000; 511200, 3739000; 511200, 3738700; 510900, 3738700; 510900, 3738800; 510800, 3738800; 510800, 3738300; 510700, 3738300; 510700, 3738200; 510600, 3738200; 510600, 3738100; 510500, 3738100; 510500, 3738000; 510400, 3738000; 510400, 3737900; 510300, 3737900; 510300, 3737600; 510100, 3737600; 510100, 3737500; 509800, 3737500; 509800, 3737400; 509700, 3737400; 509700, 3737300; 509500, 3737300; 509500, 3737200; 509400, 3737200; 509400, 3737100; 509300, 3737100; 509300, 3736900;

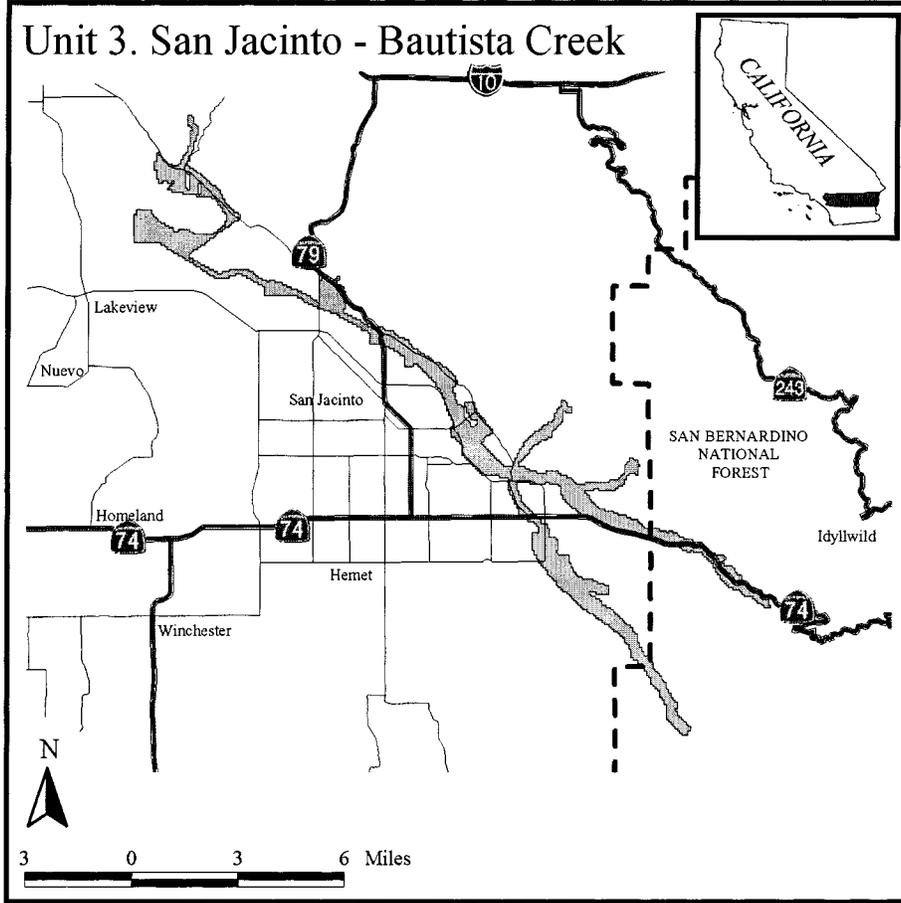
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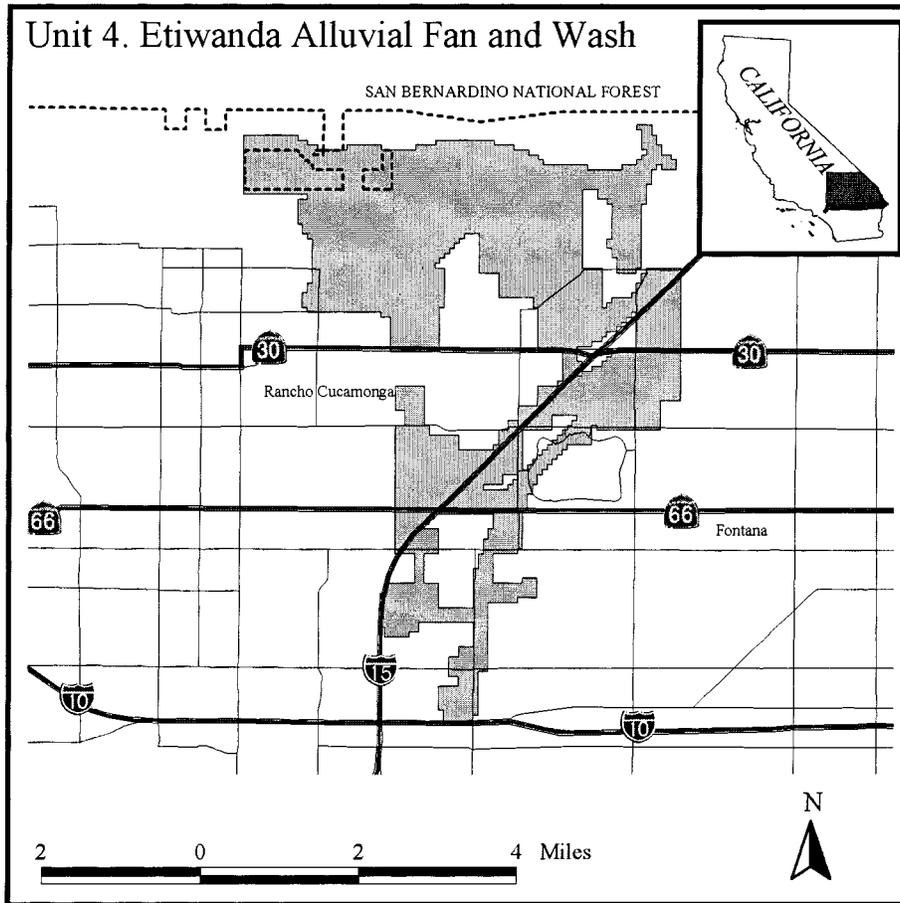
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bounded by 493600, 3749600; 493600,

3748900; 493700, 3748900; 493700,
3748800; 493800, 3748800; 493800,
3749500; 493700, 3749500; 493700,
3749600; 493600, 3749600; and land
bounded by 494200, 3749100; 494200,
3748600; 494300, 3748600; 494300,
3749100; 494200, 3749100.



Map Unit 4: Etiwanda Alluvial Fan and Wash, San Bernardino County, California. From USGS 1:24,000 quadrangle maps Fontana (1980), Guasti (1981), Devore (1988), and Cucamonga Peak (1988), California, land bounded by the following UTM NAD27 coordinates (X, Y):

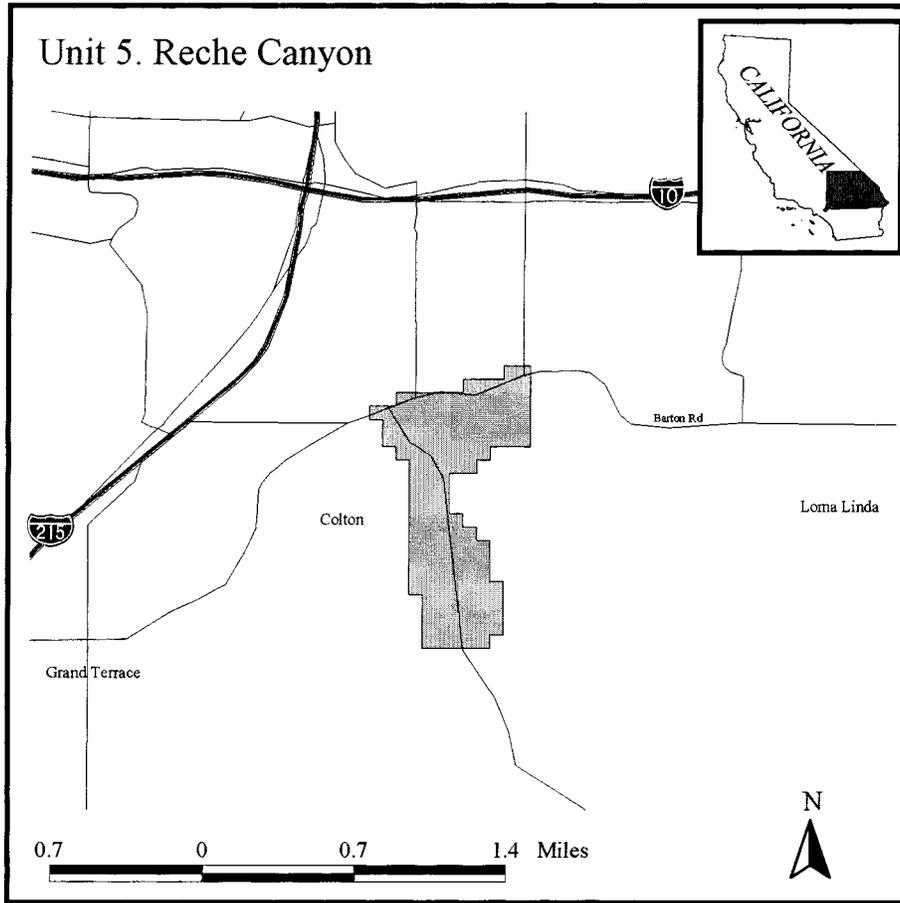
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Map Unit 5: Reche Canyon, San Bernardino County, California. From USGS 1:24,000 quadrangle map San Bernardino South (1980), California, land bounded by the following UTM NAD27 coordinates (X, Y): 474200, 3767800; 474400, 3767800; 474400, 3767200; 474100, 3767200; 474100,

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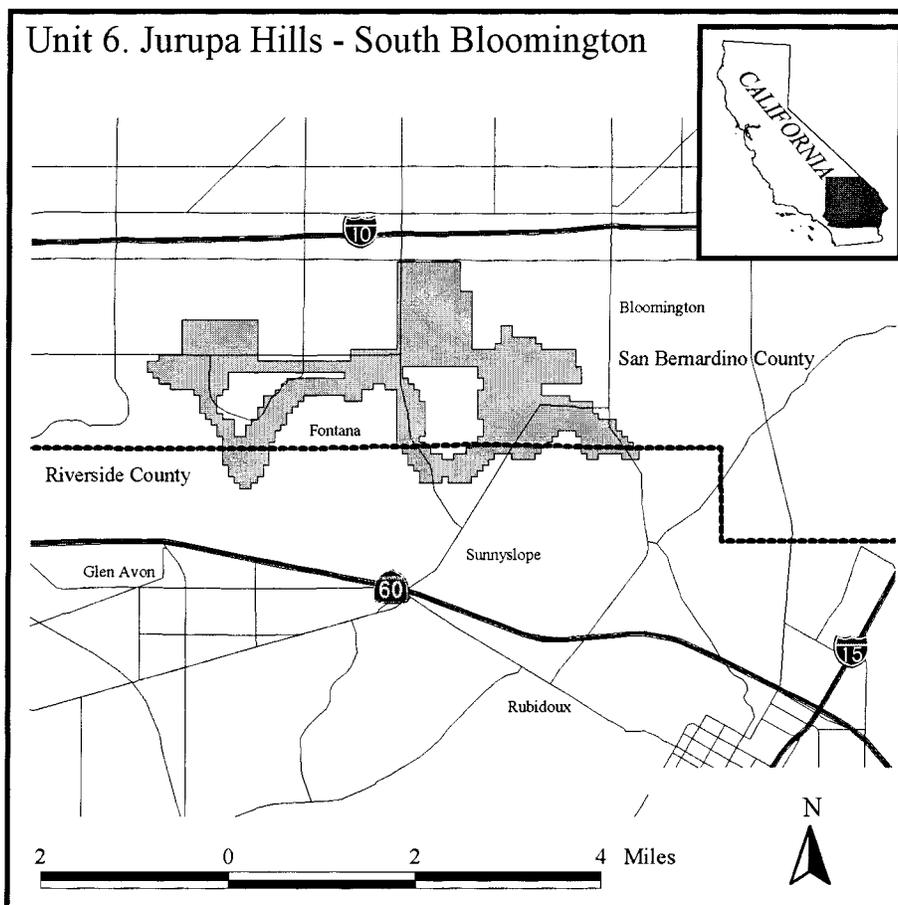
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Map Unit 6: Jurupa Hills—South
Bloomington, San Bernardino and
Riverside Counties, California. From
USGS 1:24,000 quadrangle map Fontana
(1980), California, land bounded by the
following UTM NAD27 coordinates (X,
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3765800; 461100, 3765800; 461100,
3765900; 461200, 3765900; 461200,
3766000; 461300, 3766000; 461300,
3766300; 461200, 3766300; 461200,
3766800; 461300, 3766800; 461300,
3767000; 461200, 3767000; 461200,
3767200; 459900, 3767200; and land
bounded by 456900, 3767100; 456900,
3766800; 456800, 3766800; 456800,
3766700; 456700, 3766700; 456700,
3766400; 456800, 3766400; 456800,
3766300; 457000, 3766300; 457000,
3766000; 457200, 3766000; 457200,
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3766300; 457400, 3766300; 457400,
3766500; 457500, 3766500; 457500,
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3766900; 457900, 3766900; 457900,
3767000; 458900, 3767000; 458900,
3767100; 456900, 3767100.



Dated: December 1, 2000.

Kenneth L. Smith,

*Acting Assistant Secretary for Fish and
Wildlife and Parks.*

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