

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

RIN 1018-AG34

## Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for the Riverside Fairy Shrimp

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the Riverside fairy shrimp (*Streptocephalus woottoni*), pursuant to the Endangered Species Act of 1973, as amended (Act). A total of approximately 2,790 hectares (6,870 acres) in Los Angeles, Orange, Riverside, San Diego, and Ventura counties, California, is designated as critical habitat.

Critical habitat identifies specific areas that have the physical and biological features 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 Riverside fairy shrimp are those habitat components that are essential for the primary biological needs of foraging, sheltering, reproduction, and dispersal. Critical habitat for the Riverside fairy shrimp includes those areas possessing one or more of the primary constituent elements.

Section 7 of the Act prohibits destruction or adverse modification of critical habitat by any activity funded, authorized, or carried out by any Federal agency. Section 4 of the Act requires us to consider economic and other impacts of specifying any particular area as critical habitat. We solicited data and comments from the public on all aspects of the proposed rule and economic analysis. We revised the proposal to incorporate or address new information received during the comment periods.

**EFFECTIVE DATE:** This rule becomes effective on June 29, 2001.

**ADDRESSES:** Comments and materials received, as well as supporting documentation used in the preparation of this final rule, will be available for public inspection, by appointment, during normal business hours at the Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2730 Loker Avenue West, Carlsbad, California 92008.

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

**SUPPLEMENTARY INFORMATION:****Background**

The endangered Riverside fairy shrimp (*Streptocephalus woottoni*) is a small aquatic crustacean (Order: Anostraca) that occurs in vernal pools, pool-like ephemeral ponds, and human-modified depressions from coastal southern California south to northwestern Baja California, Mexico. This species is typically found in pools, ponds, and depressions that are deeper than the basins that support the endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) (Hathaway and Simovich 1996). Water chemistry, depth, temperature, and ponding are considered important factors in determining fairy shrimp distribution (Belk 1977; Branchiopod Research Group 1996; Gonzales *et al.* 1996); hence, no individuals have been found in riverine or marine waters.

The Riverside fairy shrimp was first collected in 1979 by C.H. Eriksen and was identified as a new species in 1985 (Eng *et al.* 1990). Mature males are between 13 and 25 millimeters (mm) (0.5 to 1.0 inches (in.)) long. The cercopods (structures that enhance the rudder-like function of the abdomen) are separate with plumose setae (feathery bristles) along the borders. Mature females are between about 13 to 22 mm (0.5 to 0.87 in.) in total length. The brood pouch extends to the seventh, eighth, or ninth abdominal segment. The cercopods of females are the same as the males. Both sexes of Riverside fairy shrimp have the red color of the cercopods covering all of the ninth abdominal segment and 30 to 40 percent of the eighth abdominal segment. Nearly all species of fairy shrimp feed on algae, bacteria, protozoa, rotifers, and bits of organic matter (Pennak 1989; Eng *et al.* 1990).

Basins that support Riverside fairy shrimp are typically dry a portion of the year, but usually are filled by late fall, winter, or spring rains, and may persist into April or May. All anostracans, including the Riverside fairy shrimp, deposit eggs or cysts (organisms in a resting stage) in the pool's soil to wait out dry periods. The hatching of the cysts usually occurs from January to March. The species hatches within 7 to 21 days after the pool refills, depending on water temperature, and matures between 48 to 56 days, depending on a variety of habitat conditions (Hathaway and Simovich 1996). The "resting" or

"summer" cysts are capable of withstanding temperature extremes and prolonged drying. When the pools refill in the same or subsequent rainy seasons, some but not all of the eggs may hatch. Fairy shrimp egg banks in the soil may be composed of the eggs from several years of breeding (Donald 1983; Simovich and Hathaway 1997). Simovich and Hathaway (1997) found that only a fraction of the total cyst bank of anostracans in areas with variable weather conditions or filling periods, such as southern California, may hatch in any given year. Thus, reproductive success is spread over several seasons.

Vernal pools are discontinuously distributed in several regions of California (Keeler-Wolf *et al.* 1995), from as far north as the Modoc Plateau in Modoc County, south to the international border with Mexico in San Diego County. Vernal pools form in regions with Mediterranean climates, where shallow depressions fill with water during fall and winter rains and then evaporate in the spring (Collie and Lathrop 1976; Holland 1976, 1988; Thorne 1984; Zedler 1987; Simovich and Hathaway 1997). In years of high precipitation, overbank flooding from intermittent streams may augment the amount of water in some vernal pools (Hanes *et al.* 1990). Vernal pool studies indicate that the contribution of subsurface or overland water flows only contribute to volume to vernal pools in years of high precipitation when pools are already saturated (Hanes and Stromberg 1996) which may promote genetic exchange with the transfer of cysts and adults between pools.

Critical to the formation of vernal pools is the presence of nearly impermeable surface or subsurface soil layers and flat or gently sloping topography (less than 10 percent slope). Downward percolation of water in vernal pool basins is prevented by the presence of this impervious layer (Holland 1976, 1988). In southern California, these impervious layers are typically alluvial materials with clay or clay loam subsoils, and they often form a distinctive micro-relief known as Gilgai or mima mound topography (Cox 1984). Basaltic or granitic substrates (e.g., Hidden Lake and Santa Rosa Plateau in Riverside County) or indurated hardpan layers (e.g., coastal San Diego County) may contribute to poor drainage as well. Vernal pool studies conducted in the Sacramento Valley indicate that the contribution of subsurface or overland water flows is significant only in years of high precipitation when pools are already saturated (Hanes and Stromberg 1996).

On the coastal terraces in San Diego County, pools are associated with the Huerhuero, Stockpen, Redding, and Olivenhain soil series. Huerhuero and Stockpen soils were derived from marine sediments and terraces, while the Redding and Olivenhain soils series were formed from alluvium. The Redding and Olivenhain soils are believed to have supported the majority of the pools historically found in San Diego County. In Riverside County, the Santa Rosa Plateau has Murrieta stony clay loams and soils of the Las Posas series (Lathrop and Thorne 1976), and at Skunk Hollow the soils in the immediate area of the vernal pool are Las Posas clay loam, Wyman clay loam, and Willows soil (Service 1998).

Vernal pool systems are often characterized by different landscape features including mima mound (miniature mounds) micro-topography, varied pool basin size and depth, and vernal swales (low tract of marshy land). Vernal pool complexes that support one or more vernal pools are often interconnected by a shared watershed. This habitat heterogeneity (consisting of dissimilar elements or parts) may allow between-pool water flow, as well as fairy shrimp cysts, particularly during years of high rainfall.

Urban and water development, flood control, highway and utility projects, as well as conversion of wildlands to agricultural use, have eliminated or degraded vernal pools and/or their watersheds in southern California (Jones and Stokes Associates 1987). Changes in hydrologic patterns, certain military activities, unauthorized fills, overgrazing, and off-road vehicle use also may imperil this aquatic habitat and the Riverside fairy shrimp. The flora and fauna in vernal pools or swales can change if the hydrologic regime is altered (Bauder 1986). Anthropogenic (human origin) activities that reduce the extent of the watershed or that alter runoff patterns (i.e., amounts and seasonal distribution of water) may eliminate the Riverside fairy shrimp, reduce population sizes or reproductive success, or shift the location of sites inhabited by this species. The introduction of non-native plant species, competition with invading species, trash dumping, fire, and fire suppression activities were some of the reasons for listing the Riverside fairy shrimp as endangered on August 3, 1993 (58 FR 4138). Because of these threats, we anticipate that intensive long-term monitoring and management will be needed to conserve this species.

Historically, vernal pool soils covered approximately 500 square kilometers (km<sup>2</sup>) (200 square miles (mi<sup>2</sup>)) of San

Diego County (Bauder and McMillan 1998). The greatest recent losses of vernal pool habitat in San Diego County have occurred in Mira Mesa, Rancho Penasquitos, and Kearny Mesa, which account for 73 percent of all the pools destroyed in the region during the 7-year period between 1979 and 1986 (Keeler-Wolf *et al.* 1995). Other substantial losses have occurred in the Otay Mesa area, where over 40 percent of the vernal pools were destroyed between 1979 and 1990. Similar to San Diego County, vernal pool habitat was once extensive on the coastal plain of Los Angeles and Orange counties. Unfortunately, there has been a near-total loss of vernal pool habitat in these areas (Ferren and Pritchett 1988; Keeler-Wolf *et al.* 1995; Mattoni and Longcore 1997; Service 1998). Significant losses of vernal pools supporting this species have also occurred in Riverside County.

#### Previous Federal Action

The San Gorgonio chapter of the Sierra Club submitted a petition dated September 19, 1988, to list the Riverside fairy shrimp as endangered. The petitioner asserted that emergency listing for this species was appropriate. However, we determined that emergency listing was not warranted since the species was more widespread than first thought and occurred in at least one protected site. Nevertheless, we did publish a proposed rule to list the Riverside fairy shrimp as an endangered species in the **Federal Register** on November 12, 1991 (56 FR 57503). Because the species was not identified until 1985, and its existence remained known only to a few scientists until 1988, the proposed rule constituted the first Federal action on the Riverside fairy shrimp. We published the final rule to list the Riverside fairy shrimp as endangered in the **Federal Register** on August 3, 1993 (58 FR 41384). In 1998, the Vernal Pools of Southern California Recovery Plan (Recovery Plan) (Service 1998) was finalized. This Recovery Plan detailed the efforts required to meet the recovery needs of the Riverside fairy shrimp.

On June 30, 1999, the Southwest Center for Biological Diversity filed a lawsuit in Federal District Court for the Northern District of California for our failure to designate critical habitat for the Riverside fairy shrimp. On February 15, 2000, we entered into a settlement agreement with the plaintiff (*Southwest Center for Biodiversity v. United States Department of the Interior et al.*, C99-3202 SC). Under this settlement agreement, a final determination of critical habitat was to be completed by May 1, 2001. Subsequently, the

plaintiffs agreed to our request to extend this deadline until May 22, 2001.

At the time of listing, we concluded that designation of critical habitat for the Riverside fairy shrimp was not prudent because such designation would not benefit the species. We were concerned that critical habitat designation would likely increase the degree of threat from vandalism, collecting, or other human activities. We believed that the publication of maps showing critical habitat units would result in additional habitat destruction through trampling, discing, grading, and intentional acts of habitat vandalism. Although we acknowledged that critical habitat designation may identify and call attention to areas important for conservation or requiring special protection, we concluded that the vandalism threat posed by designating critical habitat would outweigh these benefits.

Subsequently, in the course of working with local partners, planning for conservation and management of the Riverside fairy shrimp, responding to several Freedom of Information Act requests, and publishing the Vernal Pools of Southern California Recovery Plan (Service 1998), information about the locations of vernal pools, vernal pool complexes, and occurrences of Riverside fairy shrimp were widely distributed to the public. Since the release of these data, we have not documented an increase in the threats to the species through vandalism, collection, habitat destruction, or other means. The instances of likely vandalism, though real, were relatively isolated. In contrast, we have observed an increase in public interest in the subspecies and its conservation through survey efforts by species experts, scientific research, regional and local planning, and educational outreach. Based on the lack of an increase in vandalism threats, we have determined that the threats to the Riverside fairy shrimp and its vernal pool habitat from the specific instances of habitat destruction we identified in the final listing rule do not outweigh the broader educational, regulatory, and other possible benefits that a designation of critical habitat would provide for this subspecies. Specifically, the potential benefits include: (1) Triggering section 7 consultation in areas where it may not otherwise occur because, for example, the area becomes unoccupied; (2) focusing conservation activities in the most essential areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to this subspecies.

Therefore, we have determined that designation of critical habitat for the Riverside fairy shrimp is prudent.

The proposed rule designating critical habitat for the Riverside fairy shrimp was published on September 21, 2000 (65 FR 57136). In the proposal, we determined that it was prudent to designate approximately 4,880 hectares (ha) (12,060 acres (ac)) of lands in Los Angeles, Orange, San Diego, Riverside, and Ventura counties as critical habitat. The publication of the proposed rule opened a 60-day public comment period, which closed on November 20, 2000. On February 28, 2001, we published a notice announcing the reopening of the comment period on the proposal to designate critical habitat for the Riverside fairy shrimp, and a notice of availability of the draft economic analysis on the proposed determination (66 FR 12754). This second public comment period closed on March 30, 2001.

### 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 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 our regulations at 50 CFR 402.02, we define destruction or adverse modification as “\* \* \* a 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 afford any additional protections under the Act against such activities.

To be included in a critical habitat designation, the habitat must first be “essential to the conservation of the species.” Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (i.e., areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Section 4 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 short court-ordered deadlines, we will often not have sufficient information to identify all areas of critical habitat. We are required, nevertheless, to make a decision and, thus, must base our designations on what, at the time of designation, we know to be critical habitat.

Within the geographic area occupied by the species, we will designate only areas currently known to be essential. Essential areas should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information became available, or what areas may become essential over time. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation. Within the geographic area occupied by the species, we will not designate areas that do not now have the primary constituent elements, as defined at 50 CFR 424.12(b), that provide essential life cycle needs of the species.

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)). Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species require designation of critical

habitat outside of occupied areas, we will not designate critical habitat in areas outside the geographic area occupied by the species.

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that decisions we make are based upon the best scientific and commercial data available. It requires Service biologists, to the extent consistent with the Act, 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, biological assessments, unpublished materials, and expert opinion or personal knowledge.

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

### Methods

In determining areas that are essential to conserve the Riverside fairy shrimp,

we used the best scientific and commercial data available. These included data from research and survey observations published in peer-reviewed articles, recovery criteria outlined in the Recovery Plan for Vernal Pools of Southern California (Recovery Plan) (Service 1998), regional Geographic Information System (GIS) vegetation and species coverages (including layers for Los Angeles, Orange, Riverside, and San Diego counties), data collected on U.S. Marine Corps Air Station Miramar (Miramar) and U.S. Marine Corps Base Camp Pendleton (Camp Pendleton), and data collected from reports submitted by biologists holding section 10(a)(1)(A) recovery permits. In addition, information provided in comments on the proposed designation and draft economic analysis were evaluated and considered in the development of this final designation.

As stated earlier, Riverside fairy shrimp occur in ephemeral pools and ponds that may not be present throughout a given year or from year to year. Therefore, critical habitat includes a mosaic of vernal pools, ponds, and depressions currently supporting Riverside fairy shrimp and vernal pool vegetation. One area has been included in which the current occupancy by Riverside fairy shrimp is not known, but which contains the primary constituent elements for the species and is considered essential to its conservation.

#### *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 designate as critical habitat, we are required to consider those physical and biological features (primary constituent elements) that are essential to the conservation of the species, and that may require special management considerations or protection. These features include, but are not limited to, space for individual and population growth and for normal behavior; food, water, or other nutritional or physiological requirements; cover or shelter; sites for breeding and reproduction; and habitats that are protected from disturbance or are representative of the historic and ecological distributions of a species.

The primary constituent elements for the Riverside fairy shrimp are those habitat components that are essential for the primary biological needs of foraging, sheltering, reproduction, and dispersal. These primary constituent elements are found in areas that support vernal pools or other ephemeral ponds and depressions and their associated

watersheds. The primary constituent elements are: small to large pools with moderate to deep depths that hold water for sufficient lengths of time necessary for Riverside fairy shrimp incubation and reproduction, but not necessarily every year; the associated watershed(s) and other hydrologic features that support pool basins and their related pool complexes; flat or gently sloping topography; and any soil type with a clay component and/or an impermeable surface or subsurface layer known to support vernal pool habitat. All designated critical habitat areas contain one or more of the primary constituent elements for the Riverside fairy shrimp.

#### *Criteria Used To Identify Critical Habitat*

In an effort to map areas essential to the conservation of the species, we used data on known Riverside fairy shrimp locations and those vernal pools and vernal pool complexes that were identified in the Recovery Plan (Service 1998) as essential for the recovery of the species, 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 aerial photography prints, and boundaries of approved habitat conservation plans (HCPs). We then evaluated those areas based on soil types, the hydrology, watershed, and topographic features including local variation of topographic position (i.e., coastal mesas or inland valleys). Following this evaluation, a 250-meter (m) (0.16 mile (mi)) Universal Transverse Mercator (UTM) grid was overlaid on top of those vernal pool complexes and their associated watersheds to describe the unit boundaries more precisely. Each unit of the grid was evaluated to determine whether it was appropriate to include in the critical habitat designation. The critical habitat units designated using this technique encompass either individual vernal pool basins or vernal pool complexes and provide additional assurances that watersheds and hydrologic processes are captured and maintained for this species. In those cases where occupied vernal pools were not specifically mapped in the Recovery Plan (Service 1998), we relied on recent scientific data to update the map coverage. For the purpose of this final determination, critical habitat units have been described using UTM coordinates derived from a 250-m (0.16-mi) grid that approximated the boundaries delineated from the digital aerial photography.

We could not depend solely on federally owned lands for critical

habitat designation as these lands are limited in geographic location, size, and habitat quality within the current range of the Riverside fairy shrimp. In addition to the federally owned lands, we are designating critical habitat on non-Federal public lands and privately owned lands. All non-Federal lands designated as critical habitat meet the definition of critical habitat under section 3 of the Act in that they are within the geographical area occupied by the species, are essential to the conservation of the species, and may require special management considerations or protection. The long-term survival and conservation of Riverside fairy shrimp is dependent upon the protection and management of existing occurrences, and the maintenance of ecological functions within these areas.

In defining critical habitat boundaries, we made an effort to exclude all developed areas, such as towns or housing developments, or other lands unlikely to contain the primary constituent elements essential for conservation of the Riverside fairy shrimp. Our 250-m (0.16 mi) UTM grid minimum mapping unit was designed to minimize the amount of development along the urban edge included in our designation. Existing features and structures, such as buildings, roads, railroads, urban development, and other such developed features not containing primary constituent elements, are not considered critical habitat. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect the species and/or the primary constituent elements in adjacent critical habitat.

Lands designated as critical habitat for the Riverside fairy shrimp are considered to be occupied by the species with the exception of 12 ha (30 ac) within critical habitat Unit 2 in which the occupancy by the Riverside fairy shrimp is not known. The lands in which the occupancy is not known contain the primary constituent elements for the species, have been determined to be essential to the conservation of the species, and are under consideration as a reestablishment site, if the species does not occur there. Refer to the description for Unit 2 for our justification as to why this location is essential to the conservation of the Riverside fairy shrimp.

#### **Critical Habitat Designation**

The areas we are designating as critical habitat currently provide all of those habitat components necessary to meet the primary biological needs of the

Riverside fairy shrimp, as described in the Recovery Plan (Service 1998), and defined by the primary constituent elements. The approximate area encompassing designated critical habitat by county and land ownership is shown in Table 1. Critical habitat for the

Riverside fairy shrimp includes approximately 2,790 ha (6,870 ac) in Los Angeles, Orange, Riverside, San Diego, and Ventura counties, California, and is based on the geographic location of vernal pools, soil types, and local variation of topographic position (i.e.,

coastal mesas or inland valleys). Lands proposed are under private, State, and Federal ownership and divided into five critical habitat units. A brief description of each unit, and reasons for designating it as critical habitat, are presented below.

TABLE 1.—APPROXIMATE AREA ENCOMPASSING DESIGNATED CRITICAL HABITAT IN HECTARES (HA) (ACRES (AC)) BY COUNTY AND LAND OWNERSHIP <sup>1</sup>

County	Federal land	Local/state land	Private land	Total
Los Angeles .....	0 ha (0 ac) .....	0 ha (0 ac) .....	195 ha (480 ac) .....	195 ha (480 ac)
Orange .....	45 ha (110 ac) .....	5 ha (10 ac) .....	315 ha (780 ac) .....	365 ha (900 ac)
Riverside .....	0 ha (0 ac) .....	755 ha (1,865 ac) .....	1,005 ha (2,490 ac) .....	1,760 ha (4,355 ac)
San Diego .....	320 ha (770 ac) .....	0 ha (0 ac) .....	125 ha (305 ac) .....	445 ha (1,075 ac)
Ventura .....	0 ha (0 ac) .....	0 ha (0 ac) .....	25 ha (60 ac) .....	25 ha (60 ac)
<b>Total .....</b>	<b>365 ha (880 ac) .....</b>	<b>760 ha (1,875 ac) .....</b>	<b>1,665 ha (4,115 ac) .....</b>	<b>2,790 ha (6,870 ac)</b>

<sup>1</sup> Approximate hectares have been converted to acres (1 ha = 2.471 ac). Based on the level of imprecision of mapping at this scale, approximate hectares and acres have been rounded to the nearest 5.

*Map Unit 1: Transverse Range Critical Habitat Unit, Ventura and Los Angeles counties, California (144 Ha (355 Ac))*

The Transverse Range critical habitat unit includes the vernal pool habitat that is known to be occupied by the Riverside fairy shrimp and associated essential watershed which helps maintain the integrity and water quality of the vernal pool. These vernal pools are located at Cruzan Mesa, Los Angeles County, and the former Carlsberg Ranch, Ventura County. All lands designated within this unit are on private lands. These vernal pools represent the northern limit of occupied habitat for the Riverside fairy shrimp and may have genetic characteristics essential to the overall long-term conservation of the species (i.e., they may be genetically different from more centrally located populations) (Lesica and Allendorf 1995). Additionally, these vernal pools are the last remaining vernal pools in Los Angeles and Ventura counties known to support this species. The Recovery Plan for the Vernal Pools of Southern California (Service 1998) indicates that the conservation of the vernal pool habitat and associated watershed in this unit is essential to allow for the maintenance and recovery of the populations of Riverside fairy shrimp in Los Angeles and Ventura counties.

*Map Unit 2: Los Angeles Basin-Orange Management Area, Los Angeles and Orange counties, California. (437 Ha (1,080 Ac))*

The Los Angeles coastal prairie unit includes an approximately 13 ha (30 ac) area within and adjacent to the El Segundo Blue Butterfly Preserve, west of Pershing Drive at the Los Angeles

International Airport that contains vernal pool habitat and its associated watershed essential to the conservation of the Riverside fairy shrimp. This area is, however, not known to be occupied by the Riverside fairy shrimp. This unit is the only suitable remnant of vernal pool habitat (vernal pool basin and its associated essential watershed) located within the historical coastal prairie landscape, which formerly extended from Playa del Rey south to the Palos Verdes Peninsula, an area of approximately 96 km<sup>2</sup> (37 mi<sup>2</sup>). This landscape historically included the federally endangered California Orcutt grass (*Orcuttia californica*) and San Diego button-celery (*Eryngium aristulatum* var. *parishii*). This unit also supports versatile fairy shrimp (*Branchinecta lindahli*) and western spadefoot toad (*Scaphiopus hammondi*). Riverside fairy shrimp cysts were first collected east of Pershing Drive in 1997, but adult shrimp have not been found to date, likely due to the extensive disturbance to the landscape, including the introduction of fill material, changes in water chemistry, modification of the watersheds, and the resulting shortened duration of water ponding. We are not designating the area east of Pershing Drive due to the extensive alteration of the habitat that has occurred. However, we are designating the area west of Pershing Drive as critical habitat because it contains vernal pool habitat essential for the conservation of the Riverside fairy shrimp. Considering the extensive habitat available, populations of Riverside fairy shrimp in this region were likely robust and formed the core population between the Cruzan Mesa and Carlsberg Ranch pools (Unit 1), at

the northern end of the range of the species, and the pool groups in central and southern Orange County. Conservation of the area west of Pershing Drive is necessary for the recovery of an isolated, formerly robust population that may have genetic characteristics important to the overall long-term conservation of the species.

In Orange County, this critical habitat unit includes the vernal pools and vernal pool-like ephemeral ponds and essential watershed lands at the Marine Corps Air Station El Toro, Chiquita Ridge, Tijeras Creek, Viejo parcel, Saddleback Meadows, and along the southern Orange County foothills. These vernal pool habitats are the last remaining vernal pools in Orange County known to support this species (58 FR 41384). The Orange County vernal pool habitat and essential associated watershed represent the vast majority of Riverside fairy shrimp habitat within this critical habitat unit. In addition, the Orange County pools represent a remnant complex of pools and vernal pool habitat unique to the Riverside fairy shrimp in southern Orange County. The Riverside fairy shrimp habitat in Orange County is geographically distinct from other pools within the species' range and is essential to the overall long-term conservation of the species. Therefore, as indicated in the Recovery Plan for the Vernal Pools of Southern California (Service 1998), the conservation of these vernal pools and their associated watersheds is essential to reduce the risk of extinction through random and natural events to Riverside fairy shrimp populations in Orange County and throughout its current range.

*Map Unit 3: Western Riverside County Critical Habitat Unit, Riverside County, California (1,762 Ha (4,355 Ac))*

The western Riverside County critical habitat unit includes the vernal pool basins and associated essential watersheds on the Santa Rosa Plateau and in Murrieta. These vernal pools and pool complexes represent the eastern limit of occupied Riverside fairy shrimp habitat, unique vernal pool habitat, and may have genetic characteristics important to the overall long-term conservation of the species (i.e., they may be genetically different from more centrally located populations) (Lesica and Allendorf 1995). Pools within this unit also support the federally endangered California Orcutt grass (*Orcuttia californica*) and vernal pool fairy shrimp (*Branchinecta lynchi*). These pools and their associated watersheds are essential for the conservation and recovery of the Riverside fairy shrimp as indicated in the Recovery Plan (Service 1998). This unit includes two of the five remaining populations of Riverside fairy shrimp in Riverside County. A third population, Skunk Hollow, is protected as part of an approved mitigation bank that is within the Rancho Bella Vista HCP area and as part of the conservation measures contained in the Assessment District 161 Subregional HCP. Of the remaining two vernal complexes containing Riverside fairy shrimp, one complex consists of a series of stock ponds in which the Riverside fairy shrimp was discovered after the publication of the proposed critical habitat designation. The other complex, which includes a basin (one of a series) adjacent to Lake Elsinore in which the Riverside fairy shrimp was found, was not identified as essential in the Recovery Plan and was, therefore, not included in this critical habitat designation.

*Map Unit 4: North San Diego County Critical Habitat Unit, San Diego County, California (372 Ha (920 Ac))*

The north San Diego County critical habitat unit includes essential vernal pool habitat and associated watersheds at Marine Corps Base Camp Pendleton and one pool complex within the City of Carlsbad. This unit encompasses approximately 312 ha (770 ac) in non-training areas within Camp Pendleton. These include pool complexes and lands within the associated watersheds in the Wire Mountain Housing Area, within the Cocklebur Sensitive Area, and lands leased to the State of California and included within San Onofre State Park. The Recovery Plan (Service 1998) includes these pool

complexes and their watersheds within the San Diego North Coastal Mesas Management Areas. This critical habitat unit is included in the designation because the vernal pool habitat and associated watersheds on Marine Corps Base Camp Pendleton represent one of the largest populations of the Riverside fairy shrimp and vernal pool habitat in southern California. These parcels of land are being designated as critical habitat because they represent unique vernal pool habitat and are essential to the long-term conservation of the Riverside fairy shrimp as identified in the Recovery Plan (Service 1998).

Within the jurisdiction of the City of Carlsbad, one vernal pool complex is located at the Poinsettia Lane train station. This complex and its watershed are associated with a remnant parcel of coastal terrace habitat. These lands contain unique vernal pool habitat and are essential to the conservation of the Riverside fairy shrimp in northern San Diego County, as indicated in the Recovery Plan (Service 1998).

*Map Unit 5: South San Diego County Critical Habitat Unit, San Diego County, California (63 Ha (155 Ac))*

In the proposed rule (65 FR 57136), we had six units and this unit was known as unit 6. However, we deleted proposed unit 5 (Marine Corps Air Station, Miramar) from the final rule, so this unit has changed from unit 6 to unit 5.

The South San Diego County critical habitat unit is composed of private and Federal lands and includes the ephemeral basin and its associated watershed along the United States-Mexico border. This ephemeral basin is on Federal lands (Immigration and Naturalization Service (INS)) and represents the southern limit of occupied habitat for the Riverside fairy shrimp in the United States. This basin is identified in the Recovery Plan (Service 1998) as necessary for the conservation of the Riverside fairy shrimp in southern San Diego County by providing the remnant vernal pool habitat unique to this species. The protection provided through the designation of critical habitat will assist in the recovery efforts identified in the Recovery Plan.

### 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. Conference reports provide conservation recommendations to assist the action agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory. We may issue a formal conference report, if requested by the Federal action agency. Formal conference reports include an opinion that is prepared according to 50 CFR 402.14, as if the species was listed or critical habitat designated. We may adopt the formal conference report as the biological opinion when the species is listed or critical habitat designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)).

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

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

Activities on Federal lands that may affect the Riverside fairy shrimp 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 of Engineers) under section 404 of the Clean Water Act (CWA), a section 10(a)(1)(B) permit from the Service, 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, authorized, or permitted do not require section 7 consultation.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that destroy or adversely modify critical habitat include those that appreciably reduce the value of critical habitat for both the survival and recovery of the Riverside fairy shrimp. We note that such activities may also jeopardize the continued existence of the species.

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, and 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. Therefore, designation of critical habitat in areas occupied by the Riverside fairy shrimp is not likely to result in a regulatory burden above that already in place due to the presence of the listed species.

Federal agencies already consult with us on activities in areas 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) Any activity, including the regulation of activities by the Corps of Engineers under section 404 of the CWA or activities carried out by or licensed by the U.S. Environmental Protection Agency, that could alter the watershed, water quality or quantity to an extent that water quality becomes unsuitable to support Riverside fairy shrimp, or any activity that significantly affects the natural hydrologic function of the vernal pool system and/or ephemeral pond or depression;

(2) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities, or any activity funded or carried out by the Department of Transportation or Department of Agriculture that results in discharge of dredged or fill material, excavation, or mechanized land clearing of ephemeral and/or vernal pool basins;

(3) Regulation of airport improvement or maintenance activities by the Federal Aviation Administration;

(4) Military training and maneuvers on Camp Pendleton and Miramar, and

other applicable Department of Defense (DOD) lands;

(5) Construction of roads and fences along the international border with Mexico, and associated immigration enforcement activities by the INS; and

(6) Licensing of construction of communication sites by the Federal Communications Commission.

Any of the above activities that appreciably diminish the value of critical habitat to the degree that they affect the survival and recovery of the Riverside fairy shrimp may be considered an adverse modification of critical habitat. We note that such activities may also jeopardize the continued existence of the species.

All lands designated as critical habitat are within the current geographic range of the Riverside fairy shrimp, and are occupied by the species, and/or are likely to be used by the species, whether for foraging, breeding, growth of larvae, dispersal, migration, genetic exchange, and sheltering, with the exception of the lands within Unit 2. Lands within Unit 2 are not currently known to be occupied by the Riverside fairy shrimp. Federal agencies already consult with us on activities in areas currently occupied by the species, or if the species or vernal pool habitat may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the species. Thus, we do not anticipate significant additional regulatory protection or burden will result from this critical habitat designation.

If you have questions regarding whether specific activities will constitute adverse modification of critical habitat, contact the Field Supervisor, Carlsbad Fish and Wildlife Office (see **ADDRESSES** section). Requests for copies of the regulations on listed wildlife, and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Branch of Endangered Species, 911 NE. 11th Ave, Portland, OR 97232 (telephone 503/231-2063; facsimile 503/231-6243).

#### *Relationship of Critical Habitat to Military Lands*

##### Exclusions Under Section 3(5)(A)

The Sikes Act Improvement Act of 1997 (Sikes Act) requires each military installation that includes land and water suitable for the conservation and management of natural resources to complete, by November 17, 2001, an Integrated Natural Resources Management Plan (INRMP). An INRMP integrates implementation of the military mission of the installation with

stewardship of the natural resources found there. Each INRMP includes an assessment of the ecological needs on the installation, including needs to provide for the conservation of listed species; a statement of goals and priorities; a detailed description of management actions to be implemented to provide for these ecological needs; and a monitoring and adaptive management plan. We consult with the military on the development and implementation of INRMPs for installations with listed species. We believe that habitat on bases that have completed and approved INRMPs that address the needs of the species generally do not meet the definition of critical habitat discussed above, as they require no additional special management or protection.

Therefore, we do not include these areas in critical habitat designations if they meet the following three criteria: (1) A current INRMP must be complete and provide sufficient conservation benefit to the species, (2) the plan must provide assurances that the conservation management strategies will be implemented, and (3) the plan must provide assurances that the conservation management strategies will be effective, by providing for periodic monitoring and revisions as necessary. If all of these criteria are met, then the lands covered under the plan would not meet the definition of critical habitat.

We evaluated INRMPs for DOD land that was within the proposed critical habitat to determine whether any INRMPs met the special management criteria. To date, Miramar is the only DOD installation that has completed a final INRMP that provides for sufficient conservation management and protection for vernal pools and the Riverside fairy shrimp. We reviewed this plan and determined that it addresses and meets the three criteria. Therefore, lands on Miramar (proposed Critical Habitat Unit 5) do not meet the definition of critical habitat, and they have not been included in this final designation of critical habitat for the Riverside fairy shrimp.

#### Exclusions Under Section 4(b)(2)

Subsection 4(b)(2) of the Act allows us to exclude areas from critical habitat designation where the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species. We have considered whether it is appropriate to exclude any DOD lands under section 4(b)(2).

In contrast to Miramar, Camp Pendleton has not yet completed their INRMP. Camp Pendleton has several

substantial vernal pool complexes that support the Riverside fairy shrimp and are essential to the conservation of the species. In light of these factors, we proposed 2,295 ha (5,670 ac) on Camp Pendleton as critical habitat for the Riverside fairy shrimp.

The INRMP for Camp Pendleton will be completed by the statutory deadline of November 17, 2001. We will consult with the Marines under section 7 of the Act on the development and implementation of the INRMP. We fully expect that, once the INRMP is completed and approved, areas of Camp Pendleton included in the proposed critical habitat designation will not meet the definition of critical habitat, as they will require no additional special management or protection.

To date, as the INRMP for Camp Pendleton has not yet been completed and approved, these lands meet the definition of critical habitat. Nevertheless, we have determined that it is appropriate to exclude training areas on Camp Pendleton from this critical habitat designation under section 4(b)(2). The main benefit of this exclusion is ensuring that the mission-critical military training activities can continue without interruption at Camp Pendleton while the INRMP is being completed. On March 30, 2000, at the request of the Marines, we initiated formal consultation with Camp Pendleton on their upland activities. These activities include military training, maintenance, fire management, real estate, and recreation programs. Upon completion, this consultation will address the 93 percent of that base not included in our 1995 opinion concerning their programmatic conservation plan for riparian and estuarine/beach ecosystems (Service 1995). Because of the immense complexity of dealing with a multitude of hard-to-define upland activities and numerous federally listed plants and animals, the consultation has been extended and is on-going.

The proposed critical habitat designation included about 2,295 ha (5,670 ac), or about 10 percent of the base. If critical habitat is designated within the training areas on Camp Pendleton for the Riverside fairy shrimp, the Marines believe they would be compelled to significantly curtail necessary training within the area designated as critical habitat, to the detriment of mission-critical training capability, until the consultation is concluded. As a result, the Camp Pendleton's utility as a Marine training site could be limited.

In contrast, the benefits of designating critical habitat within the training areas

on Camp Pendleton now are small. The primary benefit of designation is the prohibition on destruction or adverse modification of critical habitat under section 7 of the Act. However, we believe that section 7 consultation on any proposed action on Camp Pendleton that would result in an adverse modification conclusion would also result in a jeopardy conclusion, and we are now engaged in formal consultation with the Marines on their activities in vernal pool habitat on the base. In addition, the Marines have a statutory obligation under the Sikes Act to complete an INRMP for Camp Pendleton. As noted above, we expect that, when completed and adopted, this INRMP will provide equal or greater protection to Riverside fairy shrimp habitat on Camp Pendleton than a critical habitat designation.

We conclude that the benefits of excluding training areas on Camp Pendleton exceed the benefits of including them in the critical habitat designation. Further, we have determined that excluding the training areas will not result in the extinction of the Riverside fairy shrimp, as sufficient vernal pools remain within the final critical habitat designation, and sections 7(a)(2) and 9 of the Act still apply to the activities affecting Riverside fairy shrimp on Camp Pendleton. This exclusion does not apply to the vernal pool complexes in the Wire Mountain Housing Area, within the Cocklebur Sensitive Area, and lands leased to the State of California and included within San Onofre State Park. Because these lands are used minimally, if at all, by the Marines for training, the 312 ha (770 ac) of lands proposed on Camp Pendleton and within the San Onofre State Park are retained in the final designation.

#### *Relationship of Critical Habitat to Habitat Conservation Plans*

Subsection 4(b)(2) of the Act allows us to exclude areas from critical habitat designation where the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species. For the following reasons, we believe that in most instances the benefits of excluding legally operative HCPs, for which the Riverside fairy shrimp is a covered species and take has been authorized, will outweigh the benefits of including them.

#### (1) Benefits of Inclusion

The benefits of including HCP lands in critical habitat are normally small. The principal benefit of any designated critical habitat is that activities in such

habitat that may affect it require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid adverse modification of critical habitat. Where HCPs are in place, our experience indicates that this benefit is small or non-existent. Currently approved and permitted HCPs are already designed to ensure the long-term survival of covered species within the plan area. Where we have an approved HCP, lands that we ordinarily would define as critical habitat for covered species will normally be protected in reserves and other conservation lands by the terms of the HCPs and their Implementing Agreements. These HCPs and Implementing Agreements include management measures and protections for conservation lands designed to protect, restore, and enhance their value as habitat for covered species.

In addition, an HCP application must itself be consulted upon. While this consultation will not look specifically at the issue of adverse modification of critical habitat, unless critical habitat has already been designated within the proposed plan area, it will look at the very similar concept of jeopardy to the listed species in the plan area. Because HCPs, particularly large regional HCPs, address land use within the plan boundaries, habitat issues within the plan boundaries will have been thoroughly addressed in the HCP and through the consultation on the HCP. Our experience is also that, under most circumstances, consultations under the jeopardy standard will reach the same result as consultations under the adverse modification standard. Implementing regulations (50 CFR Part 402) define "jeopardize the continued existence of" and "destruction or adverse modification of" in virtually identical terms. Jeopardize the continued existence of means to engage in an action "that reasonably would be expected \* \* \* to reduce appreciably the likelihood of both the survival and recovery of a listed species." Destruction or adverse modification means an "alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." Common to both definitions is an appreciable detrimental effect on both survival and recovery of a listed species, in the case of critical habitat, by reducing the value of the habitat so designated. Thus, actions satisfying the standard for adverse modification are nearly always found to also jeopardize the species concerned, and the existence of a critical habitat

designation does not materially affect the outcome of consultation. Additional measures to protect the habitat from adverse modification are not likely to be required.

Further, HCPs typically provide for greater conservation benefits to a covered species than section 7 consultations because HCPs assure the long-term protection and management of a covered species and its habitat, and funding for such management through the standards found in the 5-Point Policy for HCPs (64 FR 35242) and the HCP No Surprises regulation (63 FR 8859). Such assurances are typically not provided by section 7 consultations which, in contrast to HCPs, often do not commit the project proponent to long-term special management or protections. Thus, a consultation typically does not accord the lands it covers the extensive benefits an HCP provides.

The development and implementation of HCPs provide other important conservation benefits, including the development of biological information to guide conservation efforts and assist in species recovery, and the creation of innovative solutions to conserve species while allowing for development. The education benefits of critical habitat, including informing the public of areas that are important for long-term survival and conservation of the species, are essentially the same as those that would occur from the public notice and comment procedures required to establish an HCP, as well as the public participation that occurs in the development of many regional HCPs. For these reasons, then, we believe, that designation of critical habitat has little benefit in areas covered by HCPs.

#### (2) Benefits of Exclusion

The benefits of excluding HCPs from being designated as critical habitat may be more significant. They include relieving landowners, communities, and counties of any additional minor regulatory review that might be imposed by critical habitat. Many HCPs, particularly large regional HCPs, take many years to develop and, upon completion, become regional conservation plans that are consistent with the recovery of covered species. Most regional plans benefit many species, both listed and unlisted. Imposing an additional regulatory review after HCP completion could be viewed as a disincentive to those developing HCPs. Excluding HCPs provides us with an opportunity to streamline regulatory compliance for HCP participants.

A related benefit of excluding HCPs is that it would encourage the continued

development of partnerships with HCP participants, including States, local governments, conservation organizations, and private landowners, that together can implement conservation actions we would be unable to accomplish alone. By excluding areas covered by HCPs from critical habitat designation, we preserve these partnerships and, we believe, set the stage for more effective conservation actions in the future.

In general, then, we believe the benefits of critical habitat designation to be small in areas covered by approved HCPs, and the benefits of excluding HCPs from designation to be significant. Weighing the small benefits of inclusion against the benefits of exclusion, including the benefits of relieving property owners of an additional layer of approvals and regulation, together with the encouragement of conservation partnerships, would generally result in approved HCPs being excluded from critical habitat designation under section 4(b)(2) of the Act.

Not all HCPs are alike with regard to species coverage and design. Within this general analytical framework, we need to evaluate completed and legally operative HCPs in which the Riverside fairy shrimp is a covered species on a case-by-case basis to determine whether the benefits of excluding these particular areas outweigh the benefits of including them.

#### *Section 4(b)(2) Evaluation of Specific HCPs*

We expect that critical habitat may be used as a tool to identify those areas essential for the conservation of the species, and we will encourage development of HCPs for such areas on non-Federal lands. Habitat conservation plans currently under development are intended to provide for protection and management of habitat areas essential for the conservation of the Riverside fairy shrimp, while directing development and habitat modification to nonessential areas of lower habitat value.

Only HCPs within the boundaries of the proposed critical habitat units are discussed herein. Those approved and legally operative HCPs that provide coverage and incidental take approval for the Riverside fairy shrimp have been excluded from this designation.

A number of habitat planning efforts have been completed within the range of the Riverside fairy shrimp. Principal among these are the San Diego Multiple Species Conservation Program (MSCP) in San Diego County, the Rancho Bella Vista HCP, and the Assessment District 161 Subregional HCP in Riverside

County. The MSCP, through its subarea plans, provides conservation measures for the Riverside fairy shrimp as a covered species, although authorization for take, should any be needed, would come from a subsequent permitting process (typically through a section 7 consultation with the Corps of Engineers). The MSCP provides that the remaining Riverside fairy shrimp habitat within the Multiple Habitat Planning Area (MHPA) should be avoided to the maximum extent practicable. Unavoidable impacts to this remaining area of habitat are to be minimized and mitigated to achieve no net loss of wetland function and value, and to provide additional protective measures, including adaptive management, contained in the MSCP.

The Rancho Bella Vista HCP planning area includes a reserve established as a mitigation bank for the vernal pool that contains the Riverside fairy shrimp (Skunk Hollow), and the HCP includes the Riverside fairy shrimp as a covered species. The mitigation bank agreement, as confirmed in the HCP, provides management for the pool and watershed in perpetuity. The Riverside fairy shrimp is also a covered species under Assessment District 161 Subregional HCP, and this HCP provides for the protection and conservation of the remainder of Skunk Hollow's watershed.

Consequently, we find that the benefits of excluding lands covered by these HCPs would be significant in preserving positive relationships with our conservation partners, lessening potential additional regulatory review and potential economic burdens, reinforcing the regulatory assurances provided for in the implementing agreements for the approved HCPs, and providing for more established and cooperative partnerships for future conservation efforts.

In summary, the benefits of including these approved HCPs in critical habitat for the Riverside fairy shrimp include increased educational benefits and minor additional management protections and measures. The benefits of excluding these HCPs from designated critical habitat for the Riverside fairy shrimp include additional conservation measures for this and other listed species, preservation of partnerships that may lead to future conservation, and the avoidance of the minor regulatory and economic burdens associated with the designation of critical habitat. Therefore, we believe the benefits of exclusion outweigh the benefits of including these areas. Furthermore, we have determined that these exclusions

will not result in the extinction of the species. We have already completed section 7 consultation on the impacts of these HCPs on the species. We determined that the approved HCPs will not jeopardize the continued existence of the Riverside fairy shrimp, which means that they will not appreciably reduce the likelihood of the survival and recovery of the species.

We have not excluded the NCCP/HCP for the Central/Coastal Orange County subregion. This plan provides only conditional coverage for the Riverside fairy shrimp. Riverside fairy shrimp in vernal pool habitats that are highly degraded and/or artificially created are a covered species and take is authorized under the HCP. However, Riverside fairy shrimp in non-degraded, natural vernal pool habitats are not considered covered species under the HCP, and take, should any be needed, can be authorized only under a separate permitting process (typically through a section 7 consultation with the Corps of Engineers). Because the natural vernal pools within the Central/Coastal Orange County subregion that are considered to be high-quality habitat for the Riverside fairy shrimp are not covered by the current HCP, the benefits from designating this area as critical habitat are not outweighed by the benefits provided by the HCP. Therefore, we are including the natural vernal pools at the Viejo parcel, Tijeras Creek, and Marine Corps Air Station El Toro in this final critical habitat designation.

HCPs currently under development are intended to provide for the protection and management of habitat areas essential for the conservation of the Riverside fairy shrimp, while directing development and habitat modification to areas of lower habitat value. The HCP development process provides an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by the Riverside fairy shrimp. 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 fully expect that HCPs undertaken by local jurisdictions (e.g., counties, cities) and other parties will identify, protect, and provide appropriate management for those specific lands within the boundaries of the plans that are essential for the long-term conservation of the species. We believe and fully expect that our analyses of these proposed HCPs and proposed permits under section 7 will show that covered activities carried out in accordance with

the provisions of the HCPs and biological opinions will not result in destruction or adverse modification of critical habitat.

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 Riverside fairy shrimp, and appropriate conservation management actions. Several HCP efforts are now under way that address listed and nonlisted species in areas within the range of the Riverside fairy shrimp that we are designating as critical habitat. The take minimization and mitigation measures provided under these HCPs are expected to protect the essential habitat in this rule and provide for the conservation of the covered species. Furthermore, we will complete intra-service consultation on our issuance of section 10(a)(1)(B) permits for these HCPs to ensure permit issuance will not destroy or adversely modify critical habitat. If an HCP that includes the Riverside fairy shrimp is ultimately approved, we will reassess the critical habitat boundaries in light of the HCP. We will seek to undertake this review when the HCP is approved, but funding constraints may influence the timing of such a review.

Should additional information become available that changes our assessment of the benefits of excluding any of these (or other) areas compared to the benefits of including them in the critical habitat designation, we may revise the designation accordingly. Similarly, if new information indicates any of these areas should not be included in the designated critical habitat because they no longer meet the definition of critical habitat, we may revise this final rule. If, consistent with available funding and program priorities, we elect to revise this designation, we will do so through a subsequent rulemaking.

#### **Summary of Comments and Recommendations**

In the September 21, 2000, proposed rule (65 FR 57136), we requested all interested parties to submit comments on the specifics of the proposal including information, policy, treatment of HCPs, and proposed critical habitat boundaries as provided in the proposed rule. The first comment period closed on November 20, 2000. The comment period was reopened from February 28, 2001, to March 30, 2001 (66 FR 12754), to allow for additional comments on the proposed rule, and comments on the draft economic analysis of the proposed critical habitat. We accepted comments received from September 21, 2000, to

March 30, 2001, and entered them into the administrative record for the rule.

We contacted all appropriate State and Federal agencies, county governments, elected officials, and other interested parties and invited them to comment. In addition, we invited public comment through the publication of notices in the following newspapers in southern California: San Diego Union Tribune and Riverside Press Enterprise on September 25, 2000, and the Los Angeles Times on September 28, 2000. There were no requests for a public hearing.

We requested four biologists, who have familiarity with the Riverside fairy shrimp and the conservation of vernal pools, to peer review the proposed critical habitat designation. Two of the peer reviewers submitted comments on the proposed critical habitat designation, providing updated biological information, critical review, and editorial comments, and two did not respond.

We received a total of 632 written comments during the two comment periods. Comments were received from 1 Federal agency, 2 local agencies, and 617 private organizations or individuals. We reviewed all comments received for substantive issues and new information regarding critical habitat and the Riverside fairy shrimp. Of the 632 comments we received, 621 commenters supported the designation of critical habitat for the Riverside fairy shrimp, 7 were opposed to it, and 4 provided information or declined to oppose or support the designation. Similar comments were grouped into four general issues relating specifically to the proposed critical habitat determination and draft economic analysis on the proposed determination. These are addressed in the following summary.

#### *Issue 1: Biological Justification and Methodology*

(1) *Comment:* The scale of the proposed critical habitat is overly broad, resulting in vague unit boundaries. Several commenters questioned the biological justification for proposing critical habitat for the Riverside fairy shrimp using such a landscape-scale approach when more precise information is available for use by the Service. Also, some commenters voiced concern that their property was within proposed critical habitat boundaries even though the land contained no Riverside fairy shrimp or primary constituent elements.

*Our Response:* We are required to describe critical habitat (50 CFR 424.12(c)) with specific limits using

reference points and lines as found on standard topographic maps of the area.

We recognize that not all parcels of land designated as critical habitat will contain the habitat components essential to the conservation of the Riverside fairy shrimp. Due to the time constraints imposed by the court, and the absence of detailed map information during the preparation of the proposed determination, we used a 250-m (0.16-mi) UTM grid to delineate the critical habitat boundaries. Due to the mapping scale, some areas not essential to the conservation of the Riverside fairy shrimp were included within the boundaries of proposed critical habitat, such as towns, housing developments, or other developed lands unlikely to provide habitat for the Riverside fairy shrimp. Because these areas do not contain one or more of the primary constituent elements for the species, Federal actions limited to those areas will not trigger a section 7 consultation, unless they affect the species and/or primary constituent elements in adjacent critical habitat.

(2) *Comment:* The proposal does not provide adequate notice of location of critical habitat units to impacted landowners as per the 1978 amendments to the Act, causing a burden to landowners who must determine which portions of their land contain critical habitat.

*Our Response:* We identified specific areas in the proposed determination that are referenced by UTM coordinates, which are found on standard topographic maps. We also made available, during the public comment period at the Carlsbad Fish and Wildlife Office, a public viewing room where the proposed critical habitat units, superimposed on 7.5 minute topographic maps, could be inspected. Furthermore, we distributed geographic data and maps of the proposed critical habitat to all 34 individuals, organizations, local jurisdictions and State and Federal agencies that requested them. We believe the information made available to the public was sufficiently detailed to allow for determination of critical habitat boundaries. This final rule contains the legal descriptions of areas designated as critical habitat required under 50 CFR 424.12(c). The accompanying maps are for illustration purposes only. If additional clarification is necessary, contact the Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

(3) *Comment:* The descriptions of the primary constituent elements of critical habitat for the Riverside fairy shrimp are vague.

*Our Response:* The description of the primary constituent elements for the Riverside fairy shrimp is based on the best available scientific and commercial data regarding the species, including a compilation of data from peer-reviewed published literature, unpublished or non-peer-reviewed survey or research reports, and biologists knowledgeable about the Riverside fairy shrimp and its habitat. The primary constituent elements, as described, represent our best estimate of what habitat components are essential for the conservation of the species.

(4) *Comment:* The proposed rule inappropriately uses a "recovery standard" to determine critical habitat, resulting in the inclusion of large areas in which the Riverside fairy shrimp is not known to occur or have occurred. The Service ignores the intent of Congress to designate only occupied areas and those areas essential to a species' conservation, and the Service has failed to determine if these unoccupied areas are essential to the Riverside fairy shrimp.

*Our Response:* The definition of critical habitat in section 3(5)(A) of the Act includes "(i) 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." The term "conservation," as defined in section 3(3) of the Act, means "to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary" (*i.e.*, the species is recovered and removed from the List of Endangered and Threatened Species).

In proposing critical habitat for the Riverside fairy shrimp, we identified those areas that are essential to the conservation of this species. The areas we proposed to designate as critical habitat provide all of those habitat components essential for the Riverside fairy shrimp as described in the Recovery Plan (Service 1998). We did not include all areas currently occupied by the Riverside fairy shrimp, but designated those areas that possess large populations, have unique ecological characteristics, and/or represent the historic geographic areas where the

Riverside fairy shrimp can be re-established.

The Recovery Plan (Service 1998) detailed the efforts required to meet the recovery needs of the Riverside fairy shrimp, and provides a description of habitat attributes that are essential to the survival and recovery of the species. After weighing the best available information, including the Recovery Plan, we conclude that the areas designated by this final rule, including areas that were not known to be occupied at the time the species was listed, are essential for the recovery of the species and subsequent removal from the List of Endangered and Threatened Species.

(5) *Comment:* The lands that are being proposed as critical habitat for the Riverside fairy shrimp represent a gross, unsubstantiated increase from the amount of habitat that was described in the final listing rule as being available for this species. In addition, the increase in number of known populations of Riverside fairy shrimp since listing indicates that designation of critical habitat may be unnecessary or unwarranted.

*Our Response:* In the August 3, 1993, final listing rule for the Riverside fairy shrimp (58 FR 41384), we stated that there were four occupied pools near Temecula in Riverside County, encompassing 96 km<sup>2</sup> (37 mi<sup>2</sup>) (approximately 9,713 ha (24,000 ac)), one population in Orange County (area not quantified), an unspecified number of occupied vernal pools at (then) Naval Air Station (NAS) Miramar and Otay Mesa in San Diego County, and two locations in Baja California, Mexico.

Since the listing of this species, scientific and commercial studies on the distribution, life history, and ecology of the Riverside fairy shrimp have been conducted and a recovery plan covering the species published. We now recognize that conservation of the Riverside fairy shrimp depends not only on specific vernal pools, but also on vernal pool complexes, the watersheds immediately surrounding them, and the hydrological processes associated with those watersheds.

Further, the known geographic range of the species has been expanded based on the identification of previously undocumented Riverside fairy shrimp populations in Los Angeles, Orange, Riverside, San Diego, and Ventura counties. Many of these previously undocumented occurrences consist of small, isolated pools varying in condition from highly degraded to high quality. Large complexes of vernal pools containing Riverside fairy shrimp were also discovered on Camp Pendleton.

These complexes, many of which are interconnected, contain the highest concentration of Riverside fairy shrimp within the species' range, with the pools and adjoining watersheds encompassing approximately 2,295 ha (5,670 ac).

The proposed determination of critical habitat for the Riverside fairy shrimp (65 FR 57136) identified approximately 4,880 ha (12,060 ac) of vernal pools and their adjacent watersheds essential to the conservation of the species that was proposed as critical habitat. This value is less than half of the lands identified as being occupied in Riverside County in the final listing rule. This final determination designates 2,790 ha (6,870 ac) as critical habitat.

Even though additional populations of the Riverside fairy shrimp have been discovered in the time since the species was listed, the factors that contributed to the decline of the species and its subsequent listing as federally endangered are still affecting vernal pool habitat and the species. Because these factors continue to affect the Riverside fairy shrimp and its habitat, the species still warrants protection under the Act, including the designation of lands essential to its conservation as critical habitat.

(6) *Comment:* No scientific data were provided to indicate how the Service determined the extent of watersheds or the hydrological processes that comprise critical habitat.

*Our Response:* As described in the section titled "Criteria Used to Identify Critical Habitat," above, we compiled data on known Riverside fairy shrimp locations and those vernal pools and vernal pool complexes that were identified in the Recovery Plan as essential for the stabilization and recovery of the species. Second, we evaluated the hydrology, watershed, and topographic features of the surrounding areas to identify the drainages, or watersheds feeding the pools using our GIS system. Third, based on this evaluation, a 250-m (0.16-mi) UTM grid was overlaid on top of those vernal pool complexes and their associated watersheds using GIS to describe the unit boundaries more precisely. Each unit of the grid was evaluated to determine whether it was appropriately included as critical habitat. The critical habitat units designated using this technique encompassed individual vernal pool basins or vernal pool complexes to ensure that watersheds and hydrologic processes were captured and maintained for this species. Where occupied vernal pools were not specifically mapped in the Recovery Plan (Service 1998), we relied on recent

scientific data to update the map coverage.

#### *Issue 2: Policy and Regulations*

(7) *Comment:* In response to the Service's request that the public comment on critical habitat designation relative to currently approved and future HCPs, many commenters stated that critical habitat should be retained within the boundaries of approved HCPs. They felt that HCPs cannot be viewed as a functional substitute for critical habitat designation, and the approved HCPs provided inadequate protection and special management considerations for the species and their habitat. Other commenters supported the exclusion of approved HCPs from critical habitat designation, and several of these same commenters wanted pending HCPs to be excluded as well. They supported their recommendations by asserting that landowners will be reluctant to participate in HCPs unless they have incentives, including the removal of critical habitat from HCP boundaries.

*Our Response:* We recognize that critical habitat is only one of many conservation tools for federally listed species. HCPs are one of the most important tools for reconciling land use with the conservation of listed species on non-Federal lands. Section 4(b)(2) of the Act allows us to exclude from critical habitat designation areas where the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species. We believe that in most instances the benefits of excluding HCPs from critical habitat designations will outweigh the benefits of including them. For this designation, we find that the benefits of exclusion outweigh the benefits of designation for all approved and legally operative HCPs in which the Riverside fairy shrimp is a covered species and the plan provides for its long-term conservation. These include the San Diego MSCP in San Diego County and the Rancho Bella Vista HCP and Assessment District 161 Subregional HCP in Riverside County.

We anticipate that future HCPs in the range of the Riverside fairy shrimp will include it as a covered species and provide for its long-term conservation. We expect that HCPs undertaken by local jurisdictions (e.g., counties and cities) and other parties will identify, protect, and provide appropriate management for those specific lands within the boundaries of the plans that are essential for the long-term conservation of the species. Section 10(a)(1)(B) of the Act states that HCPs must meet issuance criteria, including

minimizing and mitigating any take of the listed species covered by the permit to the maximum extent practicable, and that the taking must not appreciably reduce the likelihood of the survival and recovery of the species in the wild. We fully expect that our future analyses of HCPs and section 10(a)(1)(B) permits under section 7 will show that covered activities carried out in accordance with the provisions of the HCPs and section 10(a)(1)(B) permits will not result in the destruction or adverse modification of critical habitat designated for the Riverside fairy shrimp. The take minimization and mitigation measures provided under these HCPs are expected to adequately protect the essential habitat lands designated as critical habitat in this rule, such that the value of these lands for the survival and recovery of the Riverside fairy shrimp is not appreciably diminished through direct or indirect alterations. If an HCP that addresses the Riverside fairy shrimp as a covered species is ultimately approved, we will reassess the critical habitat boundaries in light of the HCP. We will seek to undertake this review when the HCP is approved, but funding constraints may influence the timing of such a review.

The designation of critical habitat should not deter participation in the NCCP or HCP processes. Approvals issued under these processes include assurances of no additional mitigation through the HCP No Surprises regulation (63 FR 8859). The development of new HCPs or NCCPs should not be affected by designation of critical habitat primarily because we view the standards of jeopardy for listed species and of adverse modification for critical habitat as being virtually identical. We discuss these standards in detail in the "Section 7 Consultation" portion of this document.

(8) *Comment:* The Service violated the National Environmental Policy Act of 1969 (NEPA) by failing to prepare an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS).

*Our Response:* 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 in the **Federal Register** on October 25, 1983 (48 FR 49244).

(9) *Comment:* The Service violated the Administrative Procedure Act by not making available for public review and comment the scientific data relied on in

formulating the proposed rule, and not providing a complete list of references or access to unpublished data despite requests from interested parties.

*Our Response:* In the proposed rule, we stated that all supporting documentation, such as the references and unpublished data used in the preparation of the proposed rule, would be available for public inspection at the Carlsbad and Ventura Fish and Wildlife Offices. A public viewing room was made available at the Carlsbad Fish and Wildlife Office where the proposed critical habitat units, superimposed on 7.5 minute topographic maps, could be inspected. In addition, we had 34 requests for maps or GIS data and we responded to each request in a timely manner by providing copies of the maps and/or digital data. We believe we provided information pertaining to the proposed critical habitat to all those who requested it.

(10) *Comment:* Comments received from the Marines requested that their lands be excluded from the critical habitat designation because protections and management afforded the Riverside fairy shrimp by Miramar's INRMP, pursuant to the Sikes Act, was sufficient, so the lands on that base did not require special management or protection, and did not meet the definition of critical habitat. In addition, the Marines requested that Camp Pendleton be excluded from critical habitat because of its existing programmatic, habitat-based management efforts, which already ensure long-term conservation of the species. Furthermore, designation of critical habitat would detrimentally impact the Marines' capability to perform military missions. Other commenters felt that: (a) The vernal pools on the bases are essential for the conservation of the species; (b) no evidence exists that training activities on Camp Pendleton would be significantly limited, especially considering the small amount of land within the proposed critical habitat that actually contains primary constituent elements; and (c) Miramar's INRMP is a guidance document only and does not provide the special management or protection for the Riverside fairy shrimp.

*Our Response:* We agree that INRMPs provide special management for lands such that they no longer meet the definition of critical habitat when the plans meet the following criteria: (1) A current INRMP must be complete and provide conservation benefit to the species; (2) the plan must provide assurances that the conservation management strategies will be

implemented; and (3) the conservation management strategies will be effective and provide for periodic monitoring and revisions as necessary.

To date, Miramar is the only DOD installation that has completed a final INRMP that provides for sufficient conservation management and protection for the Riverside fairy shrimp. We have reviewed the plan and have determined that it addresses and meets the three criteria. Therefore, lands on Miramar (proposed Critical Habitat Unit 5) do not meet the definition of critical habitat, and have not been included in this final designation of critical habitat for the Riverside fairy shrimp.

Additionally, we have determined that it is appropriate to exclude training areas on Camp Pendleton from this critical habitat designation under section 4(b)(2) of the Act. We have concluded that the benefits of excluding training areas on Camp Pendleton exceed the benefits of including them in the critical habitat designation. Further, we have determined that excluding the training areas will not result in the extinction of the Riverside fairy shrimp, as sufficient vernal pools remain within the final critical habitat designation and sections 7(a)(2) and 9 of the Act still apply to the activities affecting Riverside fairy shrimp on Camp Pendleton. This exclusion does not apply to vernal pool complexes in the Wire Mountain Housing Area, within the Cocklebur Sensitive Area, and lands leased to the State of California and included within San Onofre State Park. Because these lands are used minimally, if at all, by the Marines for training, the 312 ha (770 ac) of lands proposed on Camp Pendleton and within the San Onofre State Park are retained in the final designation.

Please refer to the Exclusions Under Section 4(b)(2) section of this rule for a more detailed discussion of the exclusion of the training areas on Camp Pendleton from this final critical habitat designation.

(11) *Comment:* A number of commenters requested additional areas be designated as critical habitat, including all vernal pools identified in the Recovery Plan (Service 1998) and other lands, because these areas are needed for the conservation of the Riverside fairy shrimp.

*Our Response:* The Recovery Plan for the Vernal Pools of Southern California (Service 1998), discusses vernal pool complexes and pools, their distribution, and known occupancy by federally listed species at the time of the plan's publication. Not all vernal pools discussed in the plan are known to be

occupied by the Riverside fairy shrimp, or considered to be essential to the conservation of the Riverside fairy shrimp. Only those vernal pool habitats that are essential to the conservation of Riverside fairy shrimp were included in the critical habitat designation for the Riverside fairy shrimp.

(12) *Comment:* A number of commenters identified specific areas that they thought should not be designated as critical habitat. For example, one commenter does not believe the Moorpark vernal pool is essential to the conservation of the Riverside fairy shrimp because it is 40 km (25 mi) from the nearest population, it is the only population known in Ventura County, and in the proposed rule, there is no connection made between the site and the conservation of the species.

*Our Response:* Where site-specific information was submitted to us providing a rationale as to why an area should not be designated critical habitat, we evaluated that information in accordance with the definition of critical habitat, pursuant to section 3 of the Act, and made a determination as to whether modifications to the proposal were appropriate. We excluded lands from the final designation that we determined to be nonessential to the conservation of the Riverside fairy shrimp or located within an approved HCP for this species. We included lands in the final designation that we considered essential and which did not have special management sufficient for the species' conservation.

The isolation of the Moorpark vernal pool is not unique. Other than the individual pools in a complex of vernal pools, most vernal pools are isolated from each other by topography and hydrology. This isolation does not diminish the value of individual pools to the conservation of the Riverside fairy shrimp. In fact, and as the commenter notes, the Moorpark vernal pool is at the northwestern edge of the Riverside fairy shrimp distribution. Conservation biologists have demonstrated that populations at the edge of a species' distribution can be important sources of genetic variation and represent the best opportunity for colonization or recolonization of unoccupied vernal pools and, thus, long-term conservation. These outlying populations may be genetically divergent from populations in the center of the range and, therefore, may have genetic characteristics that would allow adaptation in the face of environmental change. Such characteristics may not be present in other parts of the species' range (Lesica and Allendorf 1995). Considering these

factors, the designation of the Moorpark vernal pool as critical habitat for the Riverside fairy shrimp meets the criterion defined in section 3(5)(A)(i) of the Act that critical habitat includes specific areas within the geographic range of the species on which are found the physical and biological features essential to the conservation of the species.

(13) *Comment:* The proposed boundary of critical habitat at the Lennar property is incorrect because it excludes portions of the watershed and includes areas that are outside of the watershed.

*Our Response:* We reviewed the boundaries of the vernal pool containing the Riverside fairy shrimp and the proposed critical habitat relative to the project/property boundaries submitted to us on behalf of Lennar-Moorpark LLC. The proposed critical habitat unit consists of four 250-m (0.16-mi) UTM grid squares that intersect in the center of the vernal pool. Therefore, any revisions to our mapping of the Unit would result in the removal of portions of the vernal pool and its watershed.

As indicated earlier in this determination, in defining critical habitat boundaries, we made an effort to exclude all developed areas, such as towns or housing developments, or other lands unlikely to contain the primary constituent elements essential for conservation of the Riverside fairy shrimp. Our 250-m (0.16-mi) UTM grid minimum mapping unit was designed to minimize the amount of development along the urban edge included in our designation. However, this minimum mapping unit does not exclude all developed areas, such as buildings, roads, aqueducts, railroads, airports, other paved areas, lawns, and other lands unlikely to contain the primary constituent elements. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect the species and/or the primary constituent elements in adjacent critical habitat.

(14) *Comment:* The construction of ponds west of Pershing Drive may attract birds, which could result in a wildlife hazard by increasing the threat of aircraft collisions with birds.

*Our Response:* We are in negotiations with Los Angeles World Airports on restoring vernal pool habitat west of Pershing Drive near Los Angeles International Airport (LAX), and using dormant Riverside fairy shrimp cysts that occur east of Pershing Drive to inoculate the new pools. While we understand the safety concerns regarding birds and aircraft collisions, we do not believe that restoring this

vernal pool habitat will increase the amount of wildlife in the area, especially with the close proximity of the proposed vernal pools and LAX to the Pacific Ocean.

### *Issue 3: Economic Issues*

(15) *Comment:* The Service did not provide for adequate public notice of the proposed rule and sufficient opportunity for public comment. Additionally, the proposed rule was not accompanied by an economic analysis as required by law.

*Our Response:* We published the proposed rule to designate critical habitat for the Riverside fairy shrimp on September 21, 2000 (65 FR 57136), and accepted comments from the public for 60 days, until November 20, 2000. We contacted all appropriate State and Federal agencies, county governments, elected officials, and other interested parties and invited them to comment on the proposed rule. In addition, we invited public comment through the publication of notices in the San Diego Union Tribune and Riverside Press Enterprise on September 25, 2000, and the Los Angeles Times on September 28, 2000. We published a notice in the **Federal Register** on February 28, 2001 (66 FR 12754), announcing the availability of the draft economic analysis and opening a public comment period from February 28, 2001, to March 30, 2001, to allow for comments on the draft economic analysis and additional comments on the proposed determination itself. We provided notification of the draft economic analysis through telephone calls, letters, and news releases faxed and/or mailed to affected elected officials, local jurisdictions, and interest groups. We also published the draft economic analysis and associated material on our Fish and Wildlife Office internet site following the draft's release on February 28, 2001. Because of the court-ordered time frame, we were not able to extend the second comment period or open an additional public comment period.

(16) *Comment:* Within the proposed rule, there are assumptions that the rule is not expected to result in any restrictions in addition to those currently in place.

*Our Response:* In the proposed rule and draft economic analysis, we indicated that we did not expect that the designation of critical habitat would provide significant additional regulatory or economic burdens or restrictions incremental to those afforded the species pursuant to the Act. This assertion is based on the regulatory protections afforded vernal pools and the federally listed species that occur

within them by the Corps of Engineers (Corps) pursuant to section 404 of the CWA and section 7 of the Act. Following a review of our consultation history with the Corps, it appears that the Corps has consulted with us on every project that may have affected vernal pools for which they have issued permits. Because of this consultation history with the Corps, we do not believe that critical habitat will provide any significant additional regulatory burdens or restrictions.

(17) *Comment:* A couple of commenters were concerned that our economic analysis was incorrect to assume that a Regulatory Flexibility Analysis was not required.

*Our Response:* The Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act, generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act, or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. We are certifying that this rule will, in fact, not have a significant economic impact on a substantial number of small entities and as a result, we do not need to prepare either an initial or final regulatory flexibility analysis.

Our economic analysis identified several potential impacts associated with critical habitat designation, including increased consultation costs, project modification costs, and potential temporary decreases in property values. However, because we have only designated property that is within the geographic range occupied by the Riverside fairy shrimp, and because this species is federally listed, other Federal agencies are already required to consult with us on activities that they authorize, fund, permit, or carry out that may affect the Riverside fairy shrimp. Any associated costs related to these consultations, including project modifications, will therefore be attributable to the listing of the species and not to designation of critical habitat. In a few instances, completed (or near-complete) consultations may have to be reinitiated once the critical habitat designation is finalized to ensure Federal agencies' responsibilities under section 7 are met. As a result, the critical habitat designation could result in an economic effect associated with any delays to complete these consultations. Similarly, most decreases in property values, to the extent that they can be attributed to the Riverside fairy shrimp and result from actual

restrictions in land use, would be a result of its listing and not because of critical habitat designation. We recognize that the market response to a critical habitat designation, due to the perception of an increased regulatory burden, may lower real estate values on lands within the designation. However, we expect this decrease in value to be temporary. Our draft and final economic analysis further discusses how we arrived at our conclusion regarding impacts to small entities.

(18) *Comment:* Several commenters stated that we should have analyzed the cumulative effect of the critical habitat designation for the Riverside fairy shrimp, along with the effect of existing and proposed critical habitat for other species in the area.

*Our Response:* The commenters appear to be using the term "cumulative impacts" in the context of the National Environmental Policy Act. This is not appropriate in analyzing the effects of a regulation designating critical habitat for a listed species. We are required to consider only the effect of the proposed government action, which in this case is the designation of critical habitat for the Riverside fairy shrimp. The appropriate baseline to use in this analysis is the regulatory environment without this regulation. Against this baseline, we attempt to identify and measure the incremental costs and benefits associated with this designation of critical habitat. Because the Riverside fairy shrimp is a federally protected species, any effects the listing has on the regulated community is considered part of the baseline scenario, which remains unaffected by our critical habitat designation. Existing and proposed critical habitat designations for other species in the area will be part of separate rulemakings, and consequently, their economic effects will be considered separately.

(19) *Comment:* The draft economic analysis failed to consider the effect critical habitat designation would have on the demand for new housing, and the economic analysis ignores the impact of the designation on California's critical housing shortage.

*Our Response:* We are aware that some of the land that we have proposed as critical habitat for the Riverside fairy shrimp faces significant development pressure. Development activities can have a significant effect on the land and the species dependent on the habitat being developed. We also recognize that many large-scale development projects are subject to some type of Federal nexus before work actually begins. As a result, we expect that future consultations will, in part, include

planned and future real estate development.

However, we believe that these resulting consultations will not take place solely with respect to critical habitat issues. While it is true that development activities can adversely affect designated critical habitat, we believe that our future consultations regarding new housing development will take place because such actions have the potential to adversely affect a federally listed species. We believe that such planned projects would require a section 7 consultation regardless of the critical habitat designation. Again, as we have previously mentioned, section 7 of the Act requires Federal agencies to consult with us whenever actions they fund, authorize, or carry out may affect a listed species or adversely modify its critical habitat.

We also recognize that, in some instances, the designation of critical habitat could result in a distorted real estate market because participants may believe that land within critical habitat designation is subject to additional constraints. This is not the case because critical habitat designation for the Riverside fairy shrimp is not adding any significant additional protection, nor impacting landowners significantly beyond that associated with the listing of the species as endangered under the Act. As a result, we believe that any resulting distortion will be temporary and have a relatively insignificant effect on the real estate market as it should become readily apparent to market participants that critical habitat for the Riverside fairy shrimp is not imposing any significant additional constraints on landowner activities beyond those currently associated with the listing.

(20) *Comment:* One commenter expressed concern that the Service failed to quantify section 7 consultation costs on projects when designating critical habitat for the Riverside fairy shrimp.

*Our Response:* In the draft economic analysis, which was made available to the public on February 28, 2001 (66 FR 12754), there is a section that specifically discusses the cost estimates of completing section 7 consultations. These costs are developed through a review of consultation files, and estimating the level of effort of the Service, the action agency, and the applicant during both formal and informal consultations. Costs associated with these consultations include preparation of a biological assessment as well as the costs of the consultation itself. Also, please refer to our response to Comment 23.

(21) *Comment:* Some commenters were concerned that, while we discussed impacts that are more appropriately attributable to the listing of the Riverside fairy shrimp than to the proposed designation of critical habitat, we did not include the baseline costs attributable to the listing or provide quantified estimates of the costs associated with the listing.

*Our Response:* The Act is clear that the listing decision be based solely on the best available scientific and commercial data available (section 4(b) of the Act). Congress also made it clear in the Conference Report accompanying the 1982 amendments to the Act that "economic considerations have no relevance to determinations regarding the status of species \* \* \*." If we were to consider the economic impacts of listing in the critical habitat designation analysis, it would lead to confusion, because the designation analysis is meant to determine whether areas should be excluded from the designation of critical habitat based solely upon the costs and benefits of the designation, and not upon the costs and benefits of the species' listing. Our economic analyses address how our actions may affect current or planned activities and practices; they do not address impacts associated with previous Federal actions, which includes the listing of the Riverside fairy shrimp as an endangered species.

(22) *Comment:* The assumption that future section 7 consultations would not be subject to regulatory uncertainty and legal challenge, and that the designation of critical habitat will cause no impacts above and beyond those caused by listing of the species is faulty, legally indefensible, and contrary to the Act. "Adverse modification" and "jeopardy" are different, will result in different impacts, and should be analyzed as such in the economic analysis.

*Our Response:* We disagree with the commenter's assertion that "jeopardy" and "adverse modification" represent different standards. 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 both the survival and recovery of a listed species. Actions likely to result in the destruction or adverse modification of critical habitat are those that would appreciably reduce the value of critical habitat for both 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 result in the destruction or adverse modification of critical habitat would almost always result in jeopardy to the species concerned.

(23) *Comment:* Many commenters expressed concern that the draft economic analysis failed to quantify the effects of proposed critical habitat designation.

*Our Response:* We were only able to identify the types of impacts likely to occur as a result of the proposed critical habitat designation. These impacts include new consultations, reinitiation of consultations, and perhaps the need for additional time for completion of ongoing consultations to address critical habitat concerns, as required under section 7 of the Act. In some of these cases, it is possible that we might suggest reasonable and prudent alternatives to the proposed activity that triggered the consultation, which would also be an impact. Also associated with consultations is the length of time required to carry out consultations, which may result in opportunity costs associated with project delays.

In the case of proposed critical habitat for the Riverside fairy shrimp, we have designated habitat that is within the geographic range occupied by the species. As a result, impacts are not likely to be significant because Federal agencies are already required to consult with us on activities taking place on lands that have the potential to adversely affect the Riverside fairy shrimp.

We also recognize that in some instances, the designation of critical habitat could result in a distorted real estate market because participants may incorrectly perceive that land within critical habitat designation is subject to additional constraints. In truth, this is not the case because critical habitat designation for the Riverside fairy shrimp is not adding any significant additional protection, nor resulting in significant impacts to landowners beyond those associated with the listing of the species as endangered under the Act. As a result, we believe that any resulting distortion will be temporary and have a relatively insignificant effect on the real estate market, as it should become readily apparent to market participants that critical habitat for the Riverside fairy shrimp is not imposing any significant additional constraints on landowner activities beyond those currently associated with the listing.

(24) *Comment:* Some commenters felt that the economic analysis is flawed

because it is based on the premise that we have proposed designating only occupied habitat as critical habitat.

*Our Response:* The determination of whether or not proposed critical habitat is within the geographic range occupied by the Riverside fairy shrimp is part of the biological decision-making process and lies beyond the scope of an economic analysis. Please refer to our response to Comment 16 and the Methods section of this rulemaking for a discussion of the decision-making process.

(25) *Comment:* One commenter was concerned because our economic analysis failed to consider the impact of critical habitat on implementation of the Southern California Association of Governments and the San Diego Association of Governments regional transportation plans.

*Our Response:* Because we have determined that the lands designated as critical habitat are within the geographic range occupied by the Riverside fairy shrimp, this designation does not present any significant additional regulatory burdens upon regional transportation projects beyond those attributable to the listing of the Riverside fairy shrimp as a federally endangered species. Consequently, we do not believe that the designation of critical habitat for the fairy shrimp adds any significant additional economic burden within critical habitat boundaries.

(26) *Comment:* One commenter suggested that we failed to consider the impacts of the final designation of critical habitat for the Riverside fairy shrimp on regional air quality plans in Southern California.

*Our Response:* We did not take into consideration potential impacts from the proposed critical habitat designation on regional air quality plans. In order to do so, we would first have to: (1) Establish the potential incremental impacts resulting from critical habitat, (2) establish the percentage of these potential impacts that could affect regional air quality plans, and then (3) attempt to quantify the economic impacts resulting from the potential incremental impacts to air quality that are attributable to critical habitat. Because we believe that incremental impacts resulting from critical habitat are not significant, therefore not resulting in an additional significant regulatory or economic burden above and beyond that attributable to the listing of the species, we do not believe that the designation of critical habitat would have a significant effect on regional air quality planning.

#### Issue 4: Other Relevant Issues

(27) *Comment:* One commenter wanted to know if the Riverside fairy shrimp is actually the same species as the San Diego fairy shrimp, and whether there is a commonality of habitat.

*Our Response:* We may have inadvertently caused some confusion about the taxonomy of fairy shrimp in southern California by two errors on page 57137 of the proposed rule (65 FR 57136). We misidentified San Diego fairy shrimp as *Streptocephalus sandiegonensis*, instead of the correct *Branchinecta sandiegonensis*. We also mistakenly stated that the Riverside fairy shrimp is closely related to the San Diego fairy shrimp. We apologize for the errors. Although the two organisms belong to the same scientific order, they are not closely related, but are members of different genera and families.

Additionally, in general terms of habitat, the Riverside fairy shrimp inhabits pools, ponds, and depressions that are deeper than the basins that support the endangered San Diego fairy shrimp.

#### Summary of Changes From the Proposed Rule

Based on a review of public comments received on the proposed determination of critical habitat and economic analysis for the Riverside fairy shrimp, we reevaluated our proposed designation of critical habitat for this species. These changes include the following: (1) The removal of subunit 2H in southern Orange County from the designation because the vernal pool had previously been destroyed by the construction of Antonio Parkway; (2) corrections to area designated by land ownership (Table 1) based on the use of updated GIS land ownership coverages; (3) removal of Miramar (proposed Critical Habitat Unit 5) from critical habitat designation due to an existing, finalized INRMP; (4) removal of the training areas on Camp Pendleton from the designation under section 4(b)(2) of the Act; (5) changing the name of proposed Critical Habitat Unit 6 to Critical Habitat Unit 5 for this final designation.

During the comment period for the proposed determination of critical habitat for the Riverside fairy shrimp, we received comments from the Marine Corps requesting the removal of Marine Corps Air Station Miramar from the designation because they believed their final INRMP adequately protected and managed for the Riverside fairy shrimp. We have evaluated this plan and determined that the conservation management measures and protections

afforded the Riverside fairy shrimp are sufficient to ensure its conservation on this base (see discussion under the Exclusions Under section 3(5)(A) Definition section of this rule and in response to Comment 10). Therefore, we have not included Miramar in this final determination of critical habitat for Riverside fairy shrimp.

We also determined that it is appropriate to exclude the training areas on Camp Pendleton from this critical habitat designation. Under section 4(b)(2) of the Act, we weighed the benefits of excluding Camp Pendleton land against the benefits of designating these areas and concluded that the benefits of excluding the areas outweigh the benefits of including them. The main benefit of this exclusion is ensuring that the mission-critical military training activities can continue without interruption at Camp Pendleton while formal consultation on upland activities at the base is being completed. The acreage being designated as critical habitat for the Riverside fairy shrimp on Camp Pendleton has been reduced from 2,295 ha (5,670 ac) to 312 ha (770 ac). The areas designated include pool complexes at the Wire Mountain Housing Area, within the Cockleburr Sensitive Area, and on lands leased to the State of California and included within San Onofre State Park. Refer to the Exclusions Under Section 4(b)(2) section and response to Comment 10 for a more complete discussion of this issue.

#### Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial data 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.

Economic effects caused by listing the Riverside fairy shrimp as an endangered species, and by other statutes, are the baseline against which the effects of critical habitat designation are evaluated. The economic analysis must then examine the incremental economic and conservation effects and benefits of the critical habitat designation. Economic effects are measured as changes in national income, regional jobs, and household income. An analysis of the economic effects of Riverside fairy shrimp critical habitat

designation was prepared (Industrial Economics, Incorporated 2001) and made available for public review (February 28 through March 30, 2001; 66 FR 12754). The final analysis, which reviewed and incorporated public comments, concluded that no significant additional economic impacts are anticipated from the critical habitat designation above and beyond those already attributable to the listing of the Riverside fairy shrimp as an endangered species. The most likely economic effects of critical habitat designation are on activities funded, authorized, or carried out by a Federal agency. The analysis examined the effects of the proposed designation on: (1) Re-initiation of section 7 consultations, (2) length of time in which section 7 consultations are completed, and (3) new consultations resulting from the determination. Because areas proposed for critical habitat are primarily within the geographic range occupied by the Riverside fairy shrimp, activities that may affect critical habitat may also affect the species, and would thus be subject to consultation whether or not critical habitat is designated. In those limited cases where activities occur on designated critical habitat where Riverside fairy shrimp and other listed species are not found at the time of the action, section 7 consultation with the Service may be necessary for actions funded, authorized, or carried out by Federal agencies.

We believe that any project that would adversely modify or destroy critical habitat would also jeopardize the continued existence of the species, and that reasonable and prudent alternatives to avoid jeopardizing the species would also avoid adverse modification of critical habitat. Thus, no significant additional regulatory burden or associated significant additional costs would accrue because of critical habitat above and beyond those attributable to the listing of the Riverside fairy shrimp. Our economic analysis does recognize that there may be costs from delays associated with reinitiating completed consultations after the critical habitat designation is made final. There may also be economic effects due to the reaction of the real estate market to critical habitat designation, as real estate values may be lowered due to perceived increase in the regulatory burden. We believe these impacts will be short-term, however.

In summary, our economic analysis concludes that no, or minimal, significant incremental costs are anticipated as a result of the designation of critical habitat. This estimate is based on the existing consultation history with

the Corps on projects that may affect vernal pools and increased public awareness regarding the actual impacts of critical habitat designation on land values.

A copy of the final economic analysis and a description of the exclusion process with supporting documents are included in our administrative record and may be obtained by contacting our Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

**Required Determinations**

*Regulatory Planning and Review*

In accordance with the criteria in Executive Order 12866, this rule is a significant regulatory action and has been reviewed by the Office of Management and Budget (OMB).

(a) This rule will not have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities. The Riverside fairy shrimp was listed as an

endangered species in 1993. In fiscal years 1997 through 1999, we conducted seven formal section 7 consultations with other Federal agencies to ensure that their actions would not jeopardize the continued existence of the fairy shrimp.

Under the Act, critical habitat may not be adversely modified by a Federal agency action; critical habitat 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 listed species. Based upon our experience with the species and its needs, we conclude that any Federal action or authorized action that could potentially cause an adverse modification of the designated critical habitat currently occupied by Riverside fairy shrimp would currently be considered as "jeopardy" under the Act. Accordingly, the designation of currently occupied areas as critical habitat does not have 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 that do not have a Federal "sponsorship" of their actions are not restricted by the designation of critical habitat (however, they continue to be bound by the provisions of the Act concerning "take" of the species). Additionally, designation of critical habitat in areas that are not known to be occupied by this species will also not likely result in an increased regulatory burden because the Corps of Engineers requires review of projects requiring permits in all vernal pools, whether it is known that Riverside fairy shrimp are present or not. In those limited cases where activities occur on designated critical habitat where Riverside fairy shrimp and other listed species are not found at the time of the action, additional section 7 consultation with the Service not previously required may be necessary for actions funded, authorized, or carried out by Federal agencies.

TABLE 2.—IMPACTS OF RIVERSIDE FAIRY SHRIMP LISTING AND CRITICAL HABITAT DESIGNATION

Categories of activities	Activities potentially affected by species listing only <sup>1</sup>	Additional activities potentially affected by critical habitat designation <sup>2</sup>
Federal Activities Potentially Affected <sup>3</sup> .	Activities such as those affecting waters of the United States by the Army Corps of Engineers under section 404 of the Clean Water Act; road construction and maintenance, right-of-way designation, and regulation of agricultural activities; regulation of airport improvement activities under Federal Aviation Administration jurisdiction; maintenance, management, and construction activities on Marine Corps Base Camp Pendleton and Marine Corps Air Station, Miramar and other applicable DOD lands; construction of roads and fences along the international border with Mexico and associated immigration enforcement activities by the Immigration and Naturalization Service; construction of communication sites licensed by the Federal Communications Commission; and activities funded by any Federal agency.	None in occupied habitat. In unoccupied habitat containing vernal pools, additional consultations are not anticipated because the Corps of Engineers already initiates consultations in these areas.
Private or other non-Federal Activities Potentially Affected <sup>4</sup> .	Activities such as removing or destroying Riverside fairy shrimp habitat (as defined in the primary constituent elements discussion), whether by mechanical, chemical, or other means (e.g., grading, overgrazing, construction, road building, herbicide application, etc.) and appreciably decreasing habitat value or quality through indirect effects (e.g., edge effects, invasion of exotic plants or animals, or fragmentation that require a Federal action (permit, authorization, or funding)).	None in occupied habitat. In unoccupied habitat containing vernal pools, additional consultations are not anticipated because the Corps of Engineers already initiates consultations in these areas.

<sup>1</sup> This column represents the activities potentially affected by listing the Riverside fairy shrimp as an endangered species (August 3, 1993; 58 FR 41384) under the Endangered Species Act.

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

<sup>3</sup> Activities initiated by a Federal agency.

<sup>4</sup> Activities initiated by a private or other non-Federal entity that may need Federal authorization or funding.

(b) This rule 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 Riverside fairy shrimp since the listing in 1993.

The prohibition against adverse modification of critical habitat is not expected to impose any significant restrictions in addition to those that currently exist in occupied areas of designated critical habitat. Because of the potential for impacts on other

Federal agencies' activities, we will continue to review this final action for any inconsistencies with other Federal agencies' actions.

(c) This rule will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations

of their recipients. Federal agencies are currently 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. Designation of critical habitat in areas that are not known to be occupied by this species will also not likely result in a significant increased regulatory burden because the Corps of Engineers already requires review of projects involving vernal pools, whether it is known that Riverside fairy shrimp are present or not. In those limited cases where activities occur on designated critical habitat where Riverside fairy shrimp and other listed species are not found at the time of the action, section 7 consultation with us may be necessary for actions funded, authorized, or carried out by Federal agencies.

(d) OMB has determined that this rule may raise novel legal or policy issues and, as a result, this rule has undergone OMB review.

#### *Regulatory Flexibility Act*

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

SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities. The following discussion explains our determination.

We have examined this rule's potential effects on small entities as required by the Regulatory Flexibility Act, and have determined that this action will not have a significant economic impact on a substantial number of small entities.

As discussed in the economic analysis for this rulemaking and the preamble above, this rule is not expected to result in any significant restrictions in addition to those currently in existence

for areas occupied by the Riverside fairy shrimp and designated as critical habitat. As indicated in Table 1 (see Critical Habitat Designation section), we designated critical habitat on property owned by Federal, State, and local governments and private property, and identified the types of Federal actions or authorized activities that are of potential concern (Table 2). If these activities sponsored by Federal agencies within the designated critical habitat areas 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 significant additional effects on these activities in areas of critical habitat occupied by the species. Designation of critical habitat in areas that are not known to be occupied by this species will also not likely result in a significant increased regulatory burden since the Corps of Engineers already requires review of projects involving vernal pools because vernal pools typically contain listed species for which the Corps must consult with us under section 7. 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.

Therefore, we are certifying that this final designation of critical habitat is not expected to have a significant adverse impact on a substantial number of small entities. Thus, no regulatory flexibility analysis is necessary.

#### *Executive Order 13211*

On May 18, 2001, the President issued an Executive Order (EO 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. As this final rule is not expected to significantly affect energy supplies, distribution, or use, this action is not a significant energy action and no Statement of Energy Effects is required.

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

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

(a) This rule will not "significantly or uniquely" affect small governments. A Small Government Agency Plan is not required. Small governments will be

affected only to the extent that 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 designated critical habitat. Designation of critical habitat in areas that are not known to be occupied by this species will also not likely result in an increased regulatory burden because the Corps of Engineers already requires review of projects involving vernal pools as vernal pools typically contain listed species for which the Corps of Engineers must consult with us under section 7. In those limited cases where activities occur on designated critical habitat where Riverside fairy shrimp and other listed species are not found at the time of the action, section 7 consultation with the Service may be necessary for actions funded, authorized, or carried out by Federal agencies.

(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 Riverside fairy shrimp. Due to current public knowledge of the species' protection under the ESA, 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. Designation of critical habitat in areas that are not known to be occupied by this species will also not likely result in an increased regulatory burden because the Corps already requires review of projects involving vernal pools as vernal pools typically contain listed species for which the Corps must consult with us under section 7. In those limited cases where



3. In § 17.95 add critical habitat for the Riverside fairy shrimp (*Streptocephalus woottoni*) under paragraph (h) in the same alphabetical order as this species occurs in § 17.11(h), to read as follows:

**§ 17.95 Critical habitat—fish and wildlife.**

\* \* \* \* \*

(h) *Crustaceans.*

\* \* \* \* \*

**Riverside Fairy Shrimp  
(*Streptocephalus woottoni*)**

1. Critical habitat units are depicted for Los Angeles, Orange, Riverside, San Diego, and Ventura counties, California, on the maps below.

2. Critical habitat includes vernal pools, vernal pool complexes, and ephemeral ponds and depressions and their associated watersheds and

hydrologic regime indicated on the maps below and in the legal descriptions.

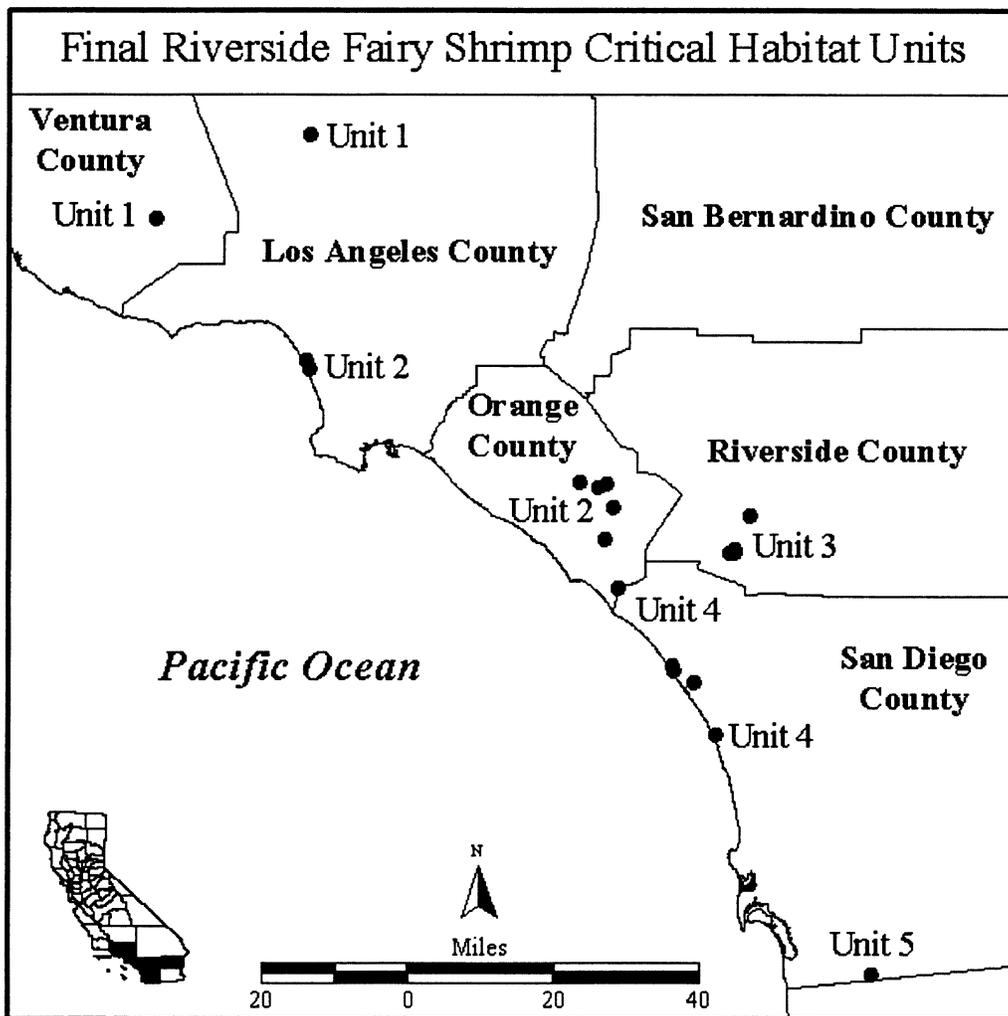
3. Within these areas, the primary constituent elements for the Riverside fairy shrimp are those habitat components that are essential for the primary biological needs of foraging, sheltering, reproduction, and dispersal. The primary constituent elements are found in those areas that support vernal pools or other ephemeral ponds and depressions, and their associated watersheds. The primary constituent elements are: small to large pools with moderate to deep depths that hold water for sufficient lengths of time necessary for incubation and reproduction, but not necessarily every year; entire watershed(s) and other hydrologic features that support pool basins and their related pool complexes; flat or

gently sloping topography; and any soil type with a clay component and/or an impermeable surface or subsurface layer known to support vernal pool habitat. All designated critical habitat areas contain one or more of the primary constituent elements for Riverside fairy shrimp.

4. Existing features and structures, such as buildings, roads, railroads, urban development, and other such developed features not containing primary constituent elements, are not considered critical habitat. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect the species and/or the primary constituent elements in adjacent critical habitat.

**Note:** Map follows:

**BILLING CODE 4310-55-U**



**BILLING CODE 4310-55-C**

Map Unit 1: Goleta and Transverse Management Area, Ventura and Los Angeles counties, California

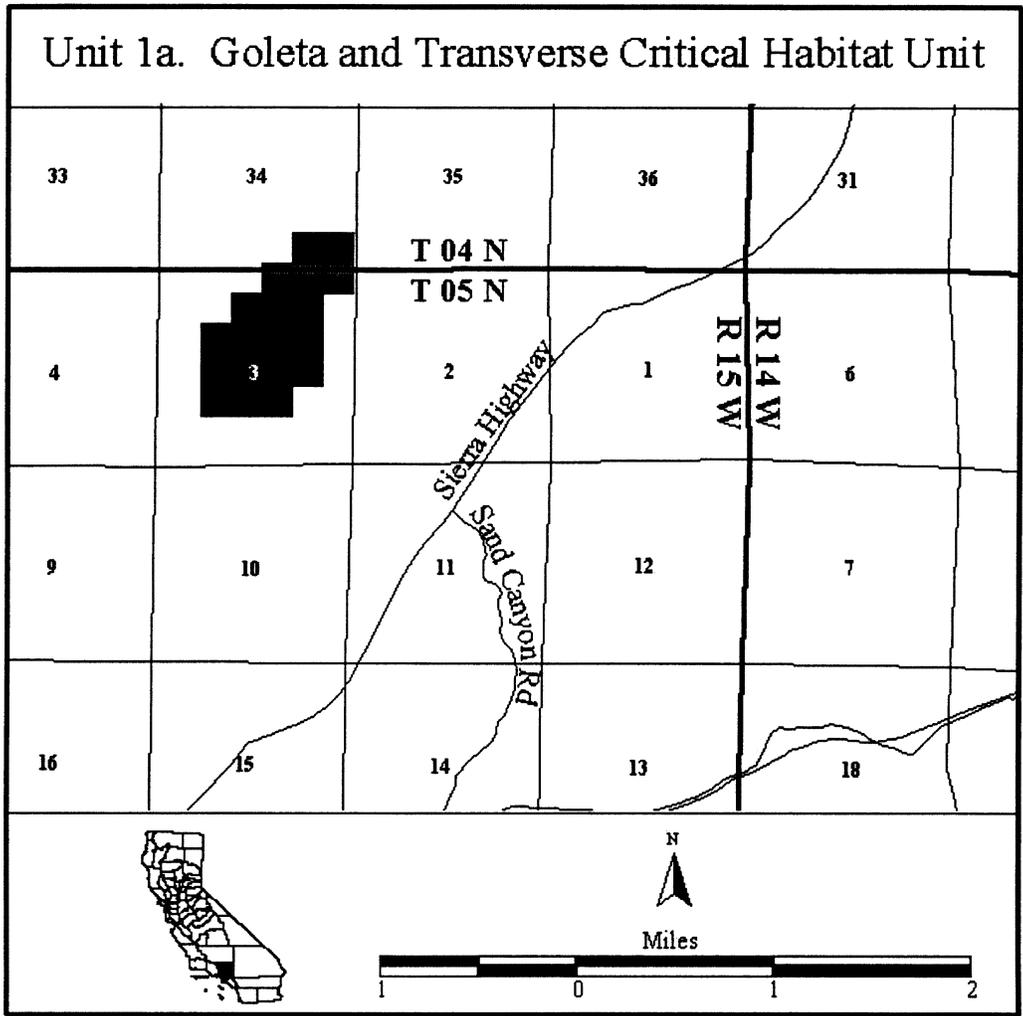
*Unit 1a:* From USGS 1:24,000 quadrangle map Mint Canyon, the lands bounded by the following UTM coordinates (E,N): 368000,3815000;

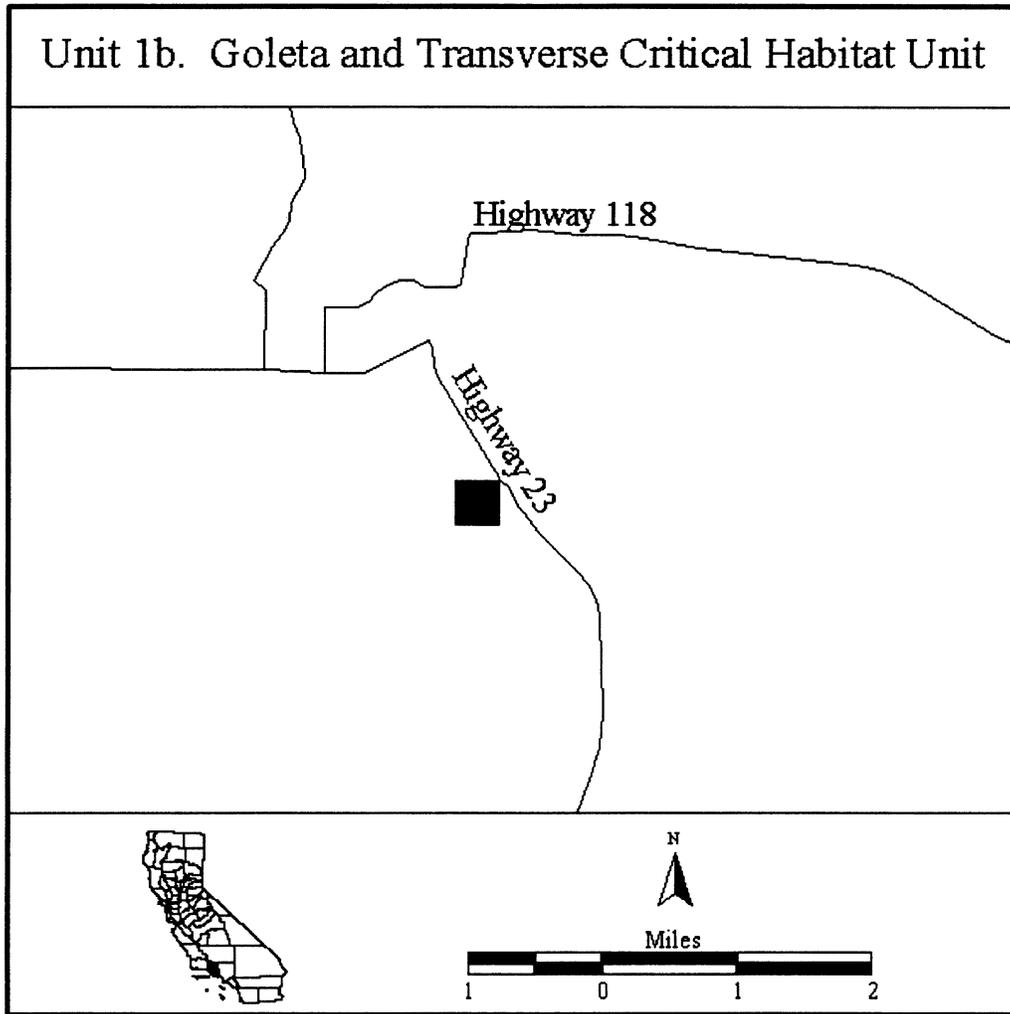
368500,3815000; 368500,3814500;  
 368250,3814500; 368250,3813750;  
 368000,3813750; 368000,3813500;  
 367250,3813500; 367250,3814250;  
 367500,3814250; 367500,3814500;  
 367750,3814500; 367750,3814750;  
 368000,3814750; 368000,3815000.

*Unit 1b:* From USGS 1:24,000 quadrangle map Simi Valley West, the lands bounded by the following UTM coordinates (E,N): 329000,3793250; 329500,3793250; 329500,3792750; 329000,3792750; 329000,3793250.

**Note:** Maps follow:

**BILLING CODE 4310-55-U**





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Map Unit 2: Los Angeles Basin-Orange Management Area, Los Angeles and Orange counties, California

*Unit 2A:* From USGS 1:24,000 quadrangle map Venice, the lands bounded by the following UTM coordinates (E,N): 366750,3757750; 367250,3757750; 367250,3757250; 367500,3757250; 367500,3756250; 367250,3756250; 367250,3756500; 367000,3756500; 367000,3757250; 366750,3757250; 366750,3757750.

*Unit 2B:* From USGS 1:24,000 quadrangle map Venice, the lands bounded by the following UTM coordinates (E,N): 367750,3755500; 368000,3755500; 368000,3755250; 367750,3755250; 367750, 3755500.

*Unit 2C:* From USGS 1:24,000 quadrangle map El Toro, the lands

bounded by the following UTM coordinates (E,N): 435750,3726750; 436750,3726750; 436750,3726500; 436500,3726500; 436500,3726250; 435750,3726250; 435750,3726750.

*Unit 2D:* From USGS 1:24,000 quadrangle map El Toro, the lands bounded by the following UTM coordinates (E,N): 440500,3725750; 441000,3725750; 441000,3725000; 440500,3725000; 440500,3725750.

*Unit 2E:* From USGS 1:24,000 quadrangle map Santiago Peak, the lands bounded by the following UTM coordinates (E,N): 442500,3727000; 443750,3727000; 443750,3726000; 442250,3726000; 442250,3726500; 442500,3726500; 442500,3727000.

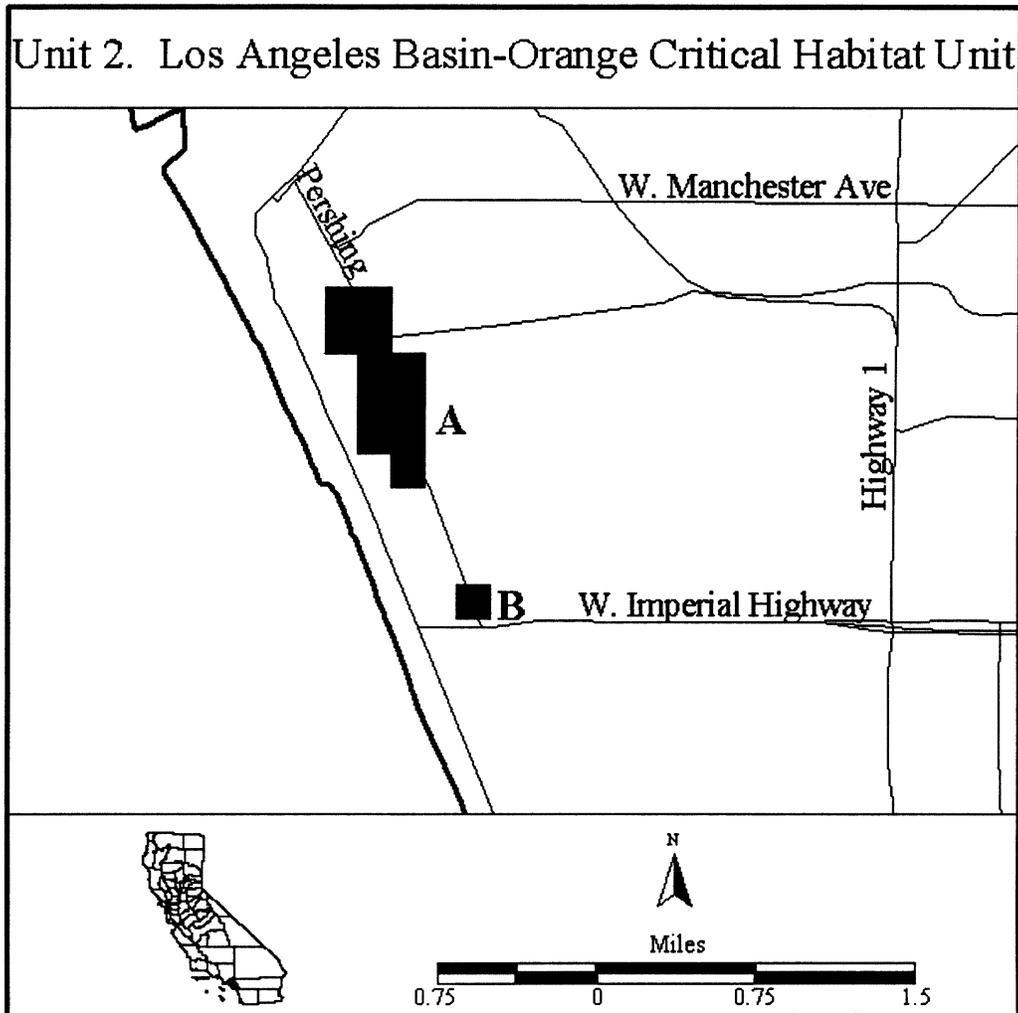
*Unit 2F:* From USGS 1:24,000 quadrangle maps Santiago Peak and

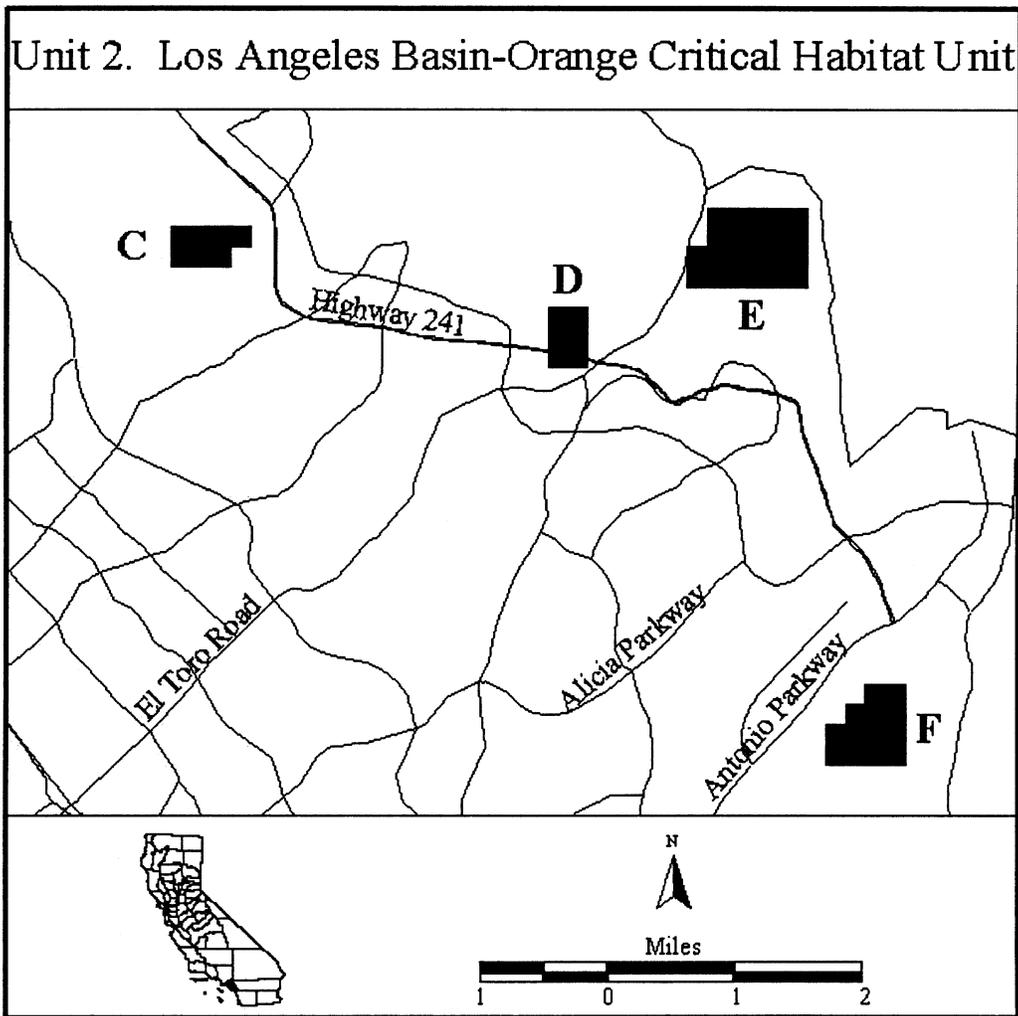
Canada Gobernadora, the lands bounded by the following UTM coordinates (E,N): 444500,3721000; 445000,3721000; 445000,3720000; 444000,3720000; 444000,3720500; 444250,3720500; 444250,3720750; 444500,3720750; 444500,3721000.

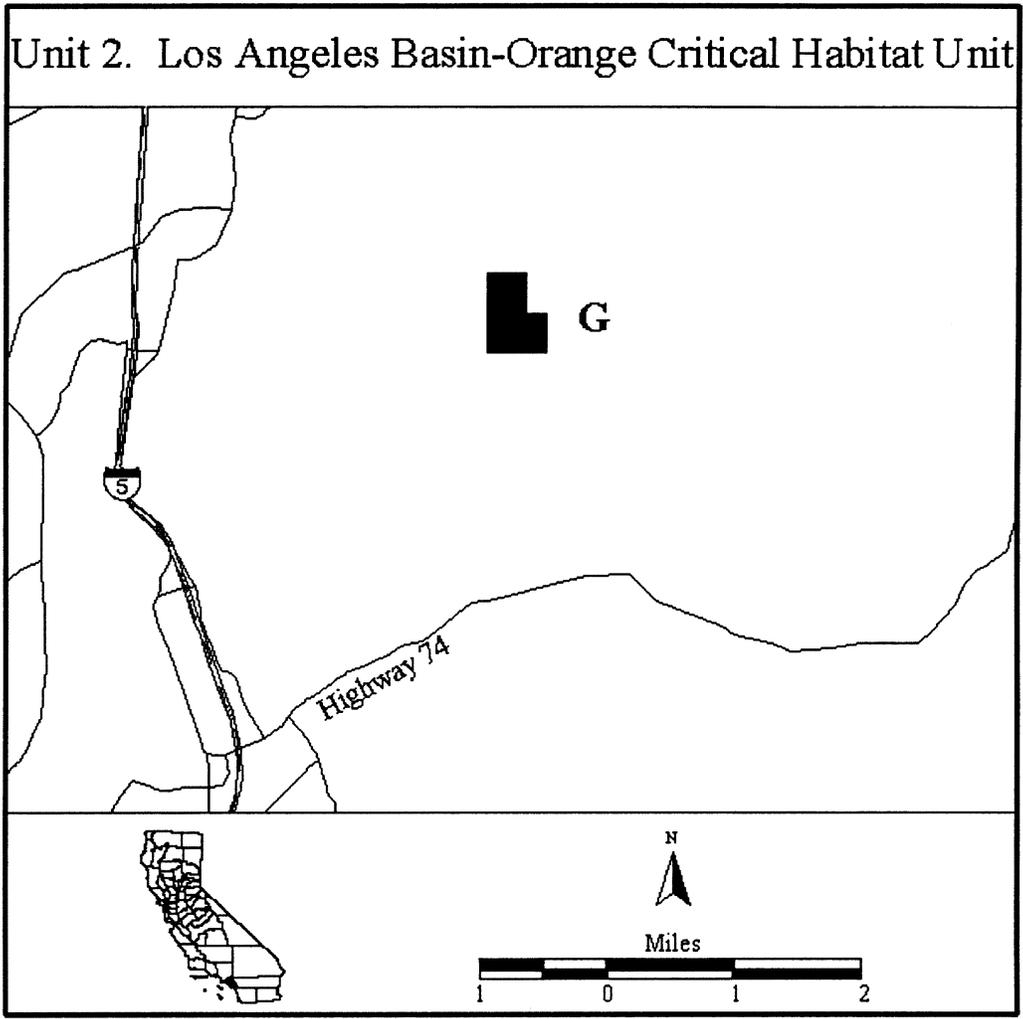
*Unit 2G:* From USGS 1:24,000 quadrangle map Canada Gobernadora, the lands bounded by the following UTM coordinates (E,N): 442000,3713000; 442500,3713000; 442500,3712500; 442750,3712500; 442750,3712000; 442000,3712000; 442000,3713000.

**Note:** Maps for Units 2A through 2G follow:

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Map Unit 3: Riverside Management Area, Riverside County, California

*Unit 3A:* From USGS 1:24,000 quadrangle map Murrieta, the lands bounded by the following UTM coordinates (E,N): 478750,3718500; 479500,3718500; 479500,3717750; 478750,3717750; 478750,3718500.

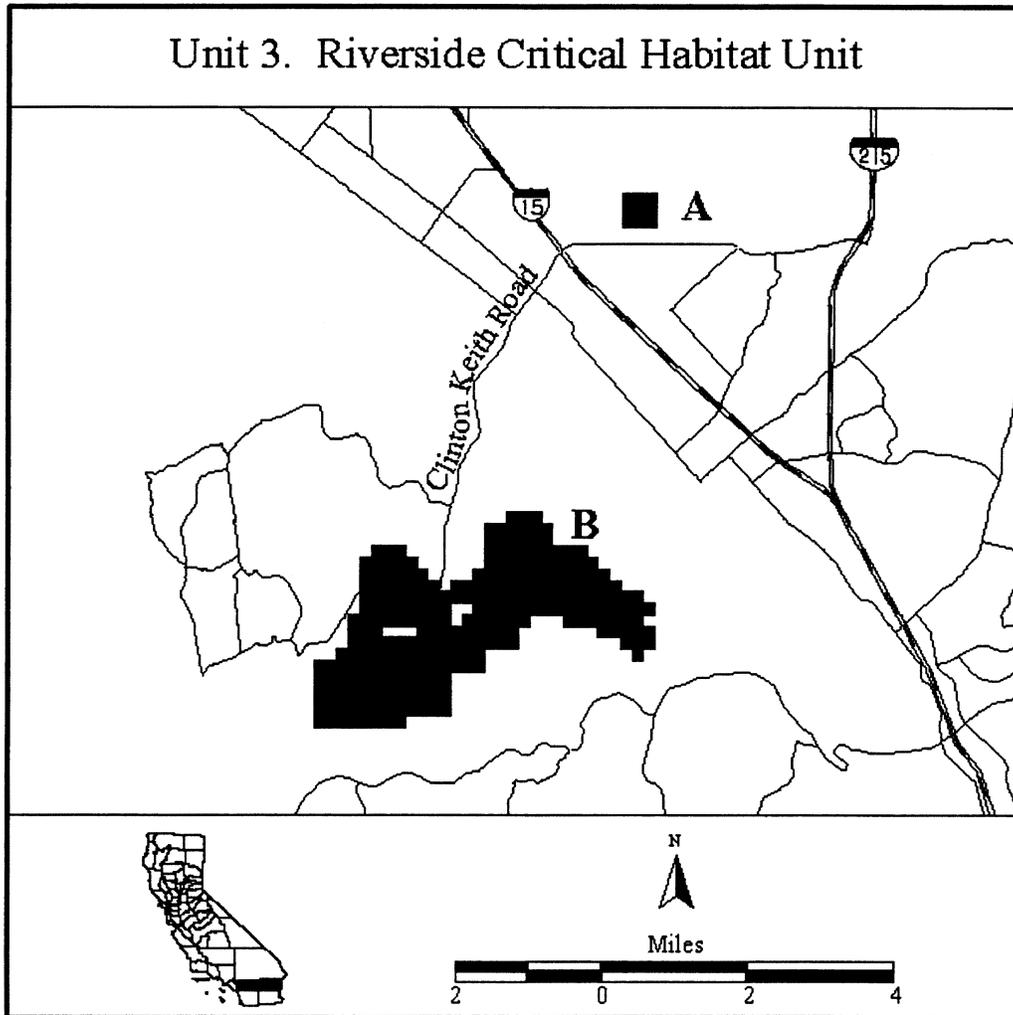
*Unit 3B:* From USGS 1:24,000 quadrangle maps Wildomar and Murrieta, the lands bounded by the following UTM coordinates (E,N): 476250,3711500; 477000,3711500; 477000,3711250; 477250,3711250; 477250,3710750; 478000,3710750; 478000,3710500; 478250,3710500; 478250,3710250; 478500,3710250; 478500,3710000; 478750,3710000;

478750,3709750; 479250,3709750; 479250,3709500; 479500,3709500; 479250,3709250; 479500,3709250; 479500,3709000; 479500,3709000; 479250,3708500; 479250,3708500; 479000,3708250; 479000,3708250; 479000,3708500; 478750,3708500; 478750,3708750; 478250,3708750; 478250,3709000; 477500,3709000; 477500,3709250; 476750,3709250; 476750,3709000; 476500,3709000; 476500,3708500; 475750,3708500; 475750,3708000; 475000,3708000; 475000,3707000; 474000,3707000; 474000,3706750; 472000,3706750; 472000,3708250; 472500,3708250; 472500,3708500; 472750,3708500; 472750,3709250; 473000,3709250; 473000,3710500; 473250,3710500; 473250,3710750; 474000,3710750;

474000,3710500; 474250,3710500; 474250,3710250; 474500,3710250; 474500,3710000; 474750,3710000; 474750,3709750; 475000,3709750; 475000,3710000; 475500,3710000; 475500,3710250; 475750,3710250; 475750,3711250; 476250,3711250; 476250,3711500. Excluding lands bounded by the following UTM coordinates (E,N): 475000,3709500; 475000,3709000; 475250,3709000; 475250,3709250; 475500,3709250; 475500,3709500; 475000,3709500 and lands bounded by the following UTM coordinates (E,N): 473500,3709000; 473500,3708750; 474250,3708750; 474250,3709000; 473500,3709000.

BILLING CODE 4310-55-U

Note: Map follows:



BILLING CODE 4310-55-C

Map Unit 4: San Diego: North Coastal Mesa Management Area, San Diego, California

Unit 4A: From USGS 1:24,000 quadrangle map San Clemente, the lands bounded by the following UTM coordinates (E,N): 446250,3701000; 446500,3701000; 446500,3699500; 445750,3699500; 445750,3700000; 446000,3700000; 446000,3700750; 446250,3700750; 446250,3701000.

Unit 4B: From USGS 1:24,000 quadrangle map Las Pulgas Canyon, the lands bounded by the following UTM coordinates (E,N): 446250,3701000; 446500,3701000; 446500,3699500; 445750,3699500; 445750, 3700000;

446000,3700000; 446000,3700750; 446250,3700750; 446250,3701000, excluding the Pacific Ocean.

Unit 4C: From USGS 1:24,000 quadrangle map Las Pulgas Canyon, the lands bounded by the following UTM coordinates (E,N): 460000,3680000; 460250,3680000; 460250,3679750; 460500,3679750; 460500,3679000; 459500,3679000; 459500,3679250; 459250,3679250; 459250,3679750; 460000,3679750; 460000,3680000, excluding the Pacific Ocean.

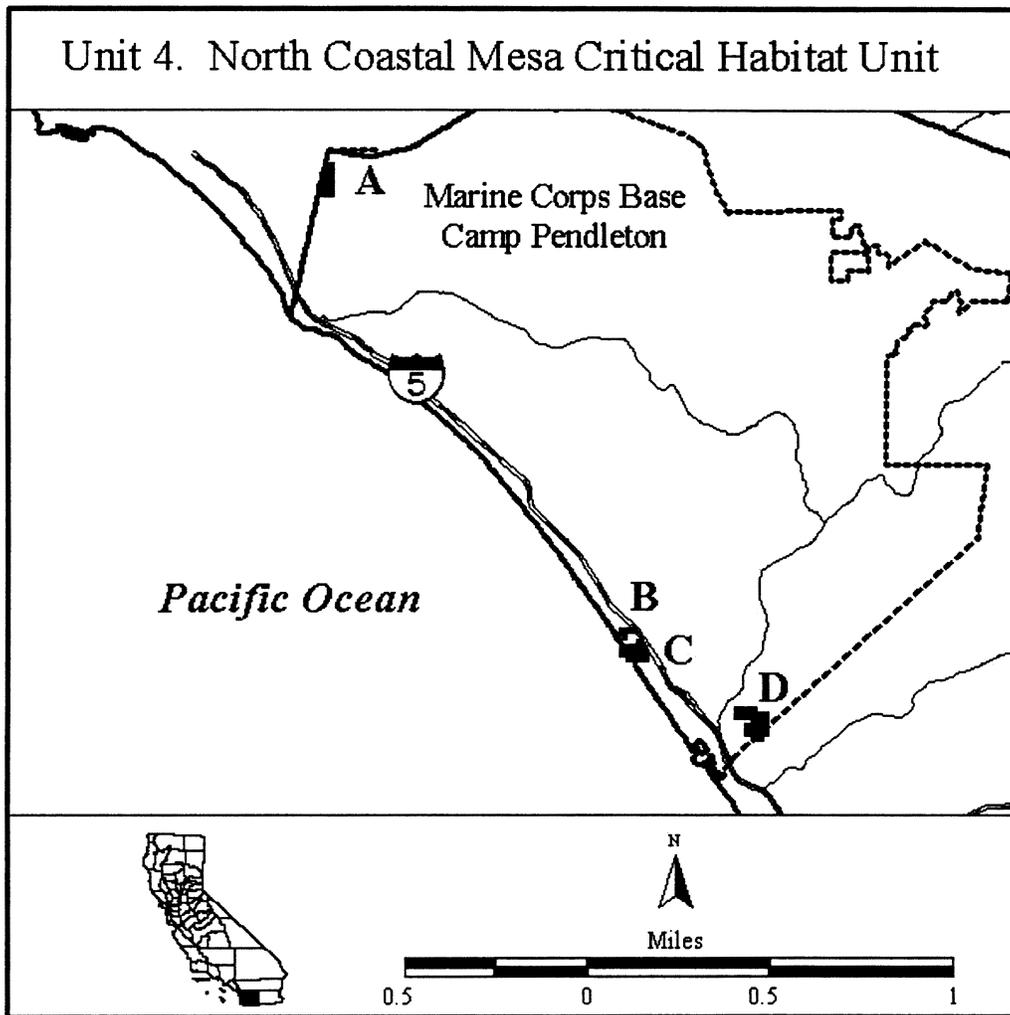
Unit 4D: From USGS 1:24,000 quadrangle maps Oceanside and San Luis Rey, the lands bounded by the following UTM coordinates (E,N): 464250,3677000; 465250,3677000;

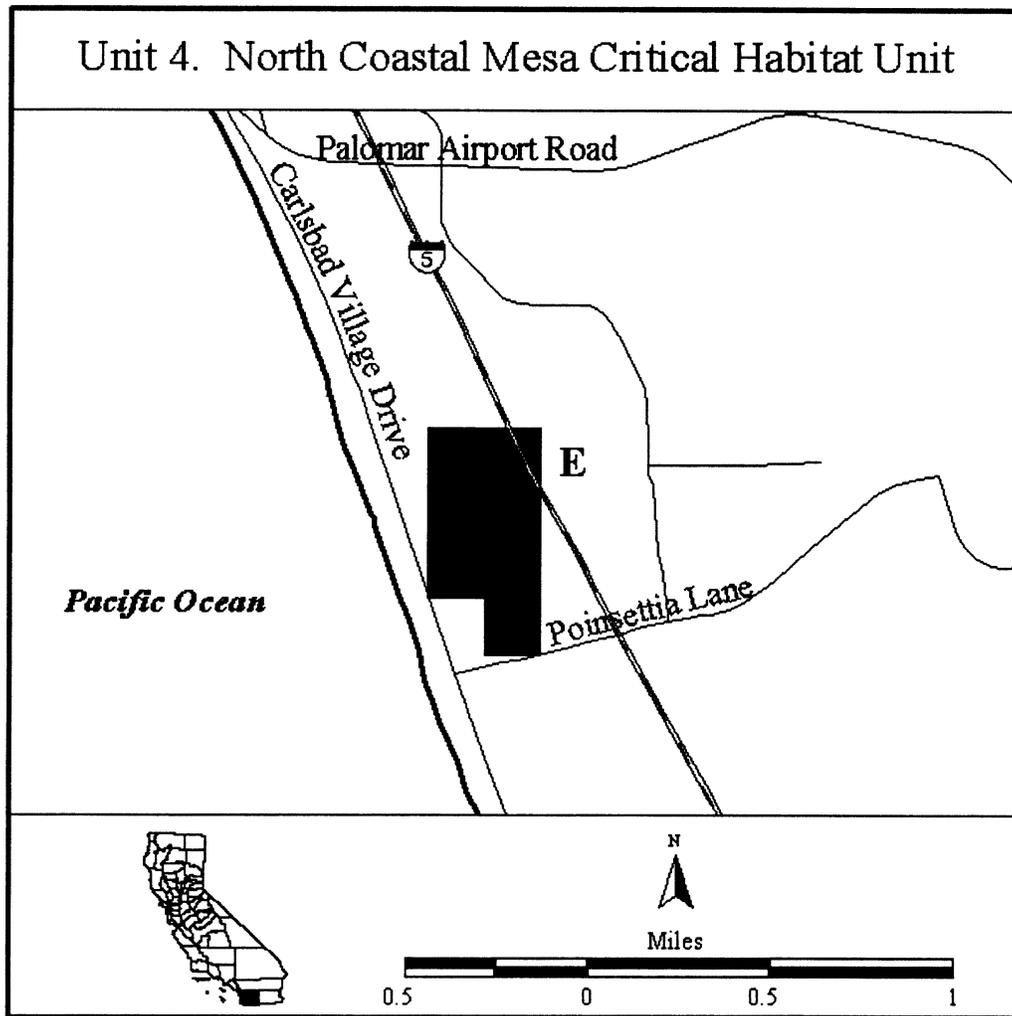
465250,3676750; 465750,3676750; 465750,3675750; 465500,3675750; 465500,3675500; 465000,3675500; 465000,3675750; 464750,3675750; 464750,3676250; 465000,3676250; 465000,3676500; 464250,3676500; 464250,3677000.

Unit 4E: From USGS 1:24,000 quadrangle maps Encinitas, the lands bounded by the following UTM coordinates (E,N): 470250,3663500; 470750,3663500; 470750,3662500; 470500,3662500; 470500,3662750; 470250,3662750; 470250,3663500.

Note: Maps for Units 4A through 4E follow:

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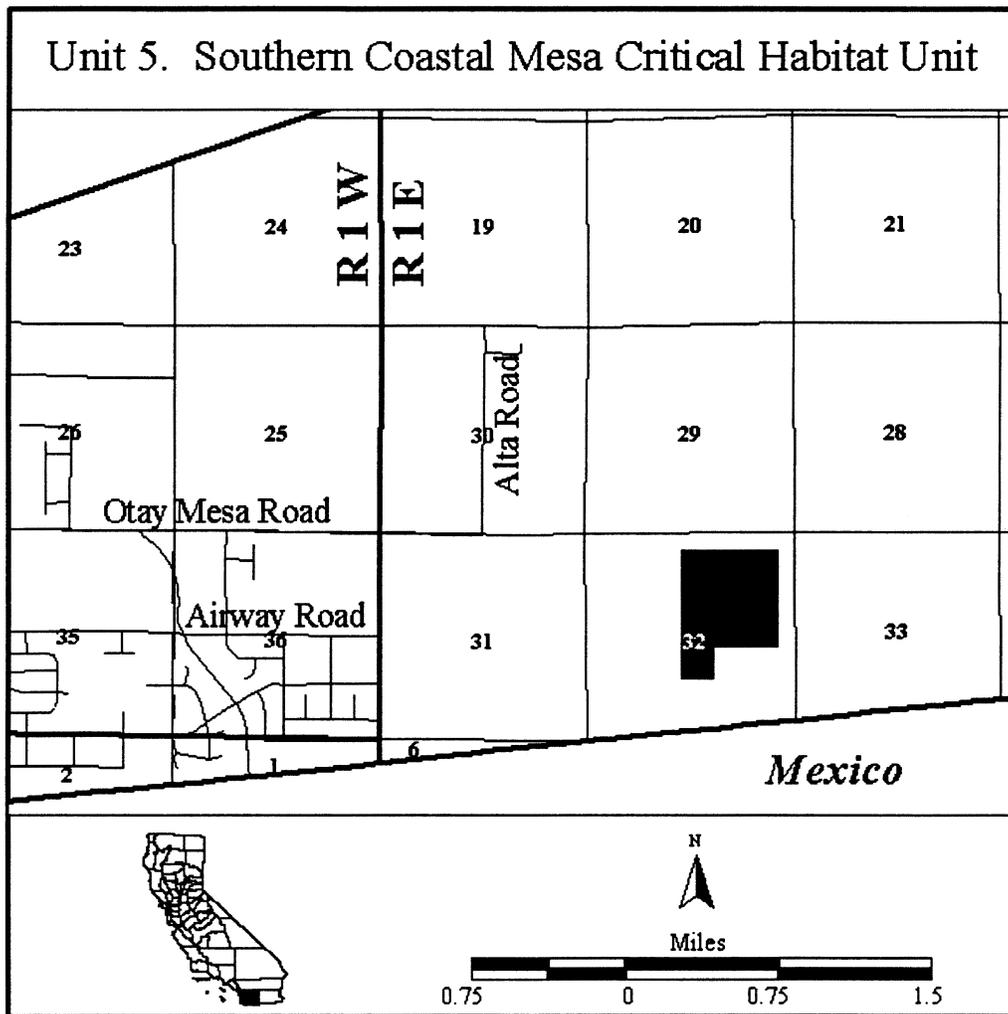
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Map Unit 5: San Diego: South Coastal Management Area, San Diego County, California. From USGS 1:24,000 quadrangle maps Otay Mesa, the lands

bounded by the following UTM coordinates (E,N): 509250,3603000; 510000,3603000; 510000,3602250;

509500,3602250; 509500,3602000; 509250,3602000; 509250,3603000.

Note: Map follows:



Dated: May 22, 2001.

Joseph E. Doddridge,  
Acting Assistant Secretary for Fish and  
Wildlife and Parks.

[FR Doc. 01-13337 Filed 5-23-01; 4:03 pm]

BILLING CODE 4310-55-C