

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17****RIN 1018-AG32****Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for the California Red-legged Frog (*Rana aurora draytonii*)**

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, designate critical habitat pursuant to the Endangered Species Act of 1973, as amended, for the California red-legged frog (*Rana aurora draytonii*). Approximately 2,175,000 hectares (5,373,650 acres) of land fall within the boundaries of the proposed critical habitat designation. Specifically, aquatic and upland areas where suitable breeding and nonbreeding habitat is interspersed throughout the landscape and is interconnected by unfragmented dispersal habitat are areas proposed as critical habitat. Proposed critical habitat is located in Alameda, Butte, Calaveras, Contra Costa, El Dorado, Fresno, Kern, Los Angeles, Marin, Mariposa, Merced, Monterey, Napa, Plumas, Riverside, San Benito, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Sierra, Solano, Sonoma, Stanislaus, Tehama, Tuolumne, Ventura, and Yuba counties, California. Critical habitat receives protection from destruction or adverse modification through required consultation under section 7 of the Act with regard to actions carried out, funded, or authorized by a Federal agency. Section 4 of the Act requires us to consider economic and other relevant impacts when specifying any particular area as critical habitat.

Proposed critical habitat does not include lands covered by any existing, legally operative, incidental take permits for the California red-legged frog issued under section 10(a)(1)(B) of the Act. The Habitat Conservation Plans (HCPs), required for issuance of these permits, provide for special management and protection under the terms of the permit and the lands covered by them are therefore not proposed for inclusion in the critical habitat. In areas where HCPs have not yet had permits issued, we have proposed critical habitat according to the factors outlined in this rule.

We solicit data and comments from the public on all aspects of this proposal, including data on economic

and other impacts of the designation and our approaches for handling HCPs. We may revise this proposal to incorporate or address new information received during the comment period.

DATES: We will accept comments until October 11, 2000. We will hold four public hearings on this proposed rule scheduled for September 19, 21, 26, and 28, 2000. See the Public Hearing section below for details of location and time.

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

1. You may submit written comments and information to the Field Supervisor, Sacramento Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Suite W-2605, Sacramento, California 95825.

2. You may also send comments by electronic mail (e-mail) to fw1crfch@fws.gov. See the Public Comments Solicited section below for file format and other information about electronic filing.

3. You may hand-deliver comments to our Sacramento Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Suite W. 2605, Sacramento, California 95825.

Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Curt McCasland or Brian Twedt, Sacramento Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Suite W. 2605, Sacramento, California 95825 (telephone 916/414-6600; facsimile 916/414-6712).

For information about Monterey, Los Angeles, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, and Ventura counties, contact Diane Noda, Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2394 Portola Road, Suite B, Ventura, California 93003 (telephone 805/644-1766; facsimile 805/644-3958).

For information about areas in the San Gabriel Mountains of Los Angeles County or Riverside and San Diego counties, contact Ken Berg, Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2730 Loker Avenue West, Carlsbad, California 92008 (telephone 760/431-9440; facsimile 760/431-9624).

SUPPLEMENTARY INFORMATION:**Background**

The California red-legged frog (*Rana aurora draytonii*) is the largest native frog in the western United States. It is endemic to California and Baja

California, Mexico. It is typically found from sea level to elevations of approximately 1,500 meters (m) (5,000 feet (ft)). The California red-legged frog ranges in body length from 40 to 130 millimeters (mm) (1.6 to 5.1 inches (in.)), with adult females attaining a significantly longer body length than males (138 mm (5.4 in.) versus 116 mm (4.6 in.)) (Hayes and Miyamoto 1984). The posterior abdomen and hind legs of adults vary in color, but are often red or salmon pink; the back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish-brown background color. Dorsal spots usually have light centers (Stebbins 1985), and the dorsolateral folds are prominent. Larvae range from 14 to 80 mm (0.6 to 3.1 in.) in length, and the background color of the body is dark brown or olive with darker spots (Storer 1925). A line of very small, indistinct gold-colored spots becomes the dorsolateral fold. The California red-legged frog is one of two subspecies of the red-legged frog (*R. aurora*). For a detailed description of the two subspecies see the Draft Recovery Plan for the California Red-legged Frog (Service 2000) and references within the plan.

Male California red-legged frogs appear at breeding sites 2 to 4 weeks before females (Storer 1925). A pair in amplexus (breeding position) moves to an oviposition site (the location where eggs are laid) and the eggs are fertilized while being attached to a brace. Braces include emergent vegetation such as bulrushes (*Scirpus* sp.), cattails (*Typha* sp.), or roots and twigs. Each mass contains about 2,000 to 5,000 individual eggs measuring approximately 2.0 to 2.8 mm (0.08 to 0.11 in.) in diameter. Eggs hatch in 6 to 14 days depending on water temperatures (Jennings *et al.* 1992). Larvae typically metamorphose between July and September, 3.5 to 7 months after eggs are laid (Storer 1925, Wright and Wright 1949). Of the various life stages, larvae probably experience the highest mortality rates. Survival rate from hatching to metamorphosis (the process of changing from a tadpole to a frog) has been estimated as less than 1 percent (Jennings *et al.* 1992), 1.9 percent (Cook 1997), or less than 5 percent (Lawler *et al.* 1999) for California red-legged frog tadpoles co-occurring with bullfrog tadpoles, and 30 to 40 percent for California red-legged frog tadpoles occurring without bullfrogs (Lawler *et al.* 1999). Sexual maturity can be attained at 2 years of age by males and 3 years of age by females (Jennings and Hayes 1985), with

adults living 8 to 10 years (M. Jennings, U.S. Geological Survey (USGS), Biological Resources Division (BRD), pers. comm. 2000). However, the average life span is probably much lower (N. Scott, USGS, BRD, pers. comm. 2000).

The historic range of the California red-legged frog extended along the coast from the vicinity of Point Reyes National Seashore, Marin County, California, and inland from the vicinity of Redding, Shasta County, California, southward to northwestern Baja California, Mexico (Jennings and Hayes 1985, Hayes and Krempels 1986). California red-legged frogs have been documented in 46 counties in California, but now remain in only 238 streams or drainages in 31 counties; the species has lost approximately 70 percent of its former range (Service 2000, 61 FR 25813). California red-legged frogs are still locally abundant within portions of the San Francisco Bay area (including Marin County) and the central coast. Within the remaining distribution of the species, only isolated populations have been documented in the Sierra Nevada, northern Coast, and northern Transverse ranges. The species is believed to be extirpated from the southern Transverse and Peninsular ranges, but is still present in Baja California, Mexico (California Natural Diversity Data Base 1998).

The California red-legged frog was listed as a threatened species on May 31, 1996 (61 FR 25813). Habitat loss and alteration, over-exploitation, and introduction of exotic predators were significant factors in the species' decline in the early-to mid-1900s. Reservoir construction, expansion of introduced predators, grazing, and prolonged drought fragmented and eliminated many of the Sierra Nevada foothill populations. Only a few drainages are currently known to support California red-legged frogs in the Sierra Nevada foothills, compared to more than 60 historical records. Several researchers have attributed the decline and extirpation of California red-legged frogs to the introduction of bullfrogs (*Rana catesbeiana*) and introduced predatory fishes (Hayes and Jennings 1986, Moyle 1973). This decline has been attributed to both predation and competition. Twedt (1993) observed the predation of juvenile northern red-legged frogs (*R. aurora aurora*) and suggested that bullfrogs may prey on subadult red-legged frogs. This is supported by Cook (Sonoma County Water Agency, *in litt.* 2000) and Cook and Jennings (*in litt.* 2000) who documented predation of both tadpoles and juvenile California red-legged frogs, as well as a large adult,

by bullfrogs. In addition, bullfrogs may have a competitive advantage over red-legged frogs; bullfrogs are larger, have more generalized food habits (Bury and Whelan 1984), have an extended breeding season (Storer 1933) where an individual female can produce as many as 20,000 eggs during a breeding season (Emlen 1977), and bullfrog larvae are unpalatable to predatory fish (Kruse and Francis 1977). In addition to competition, bullfrogs also interfere with red-legged frog reproduction. Both California and northern red-legged frogs have been observed in amplexus with (mounted on) both male and female bullfrogs (Twedt 1993, Service files).

California red-legged frogs are currently threatened by human activities, many of which operate concurrently and cumulatively with each other and with natural disturbances (e.g., droughts and floods). Current factors associated with declining populations of the frog include degradation and loss of its habitat through agriculture, urbanization, mining, overgrazing, recreation, timber harvesting, invasion of nonnative plants, impoundments, water diversions, degraded water quality, and introduced predators. These factors have resulted in the isolation and fragmentation of habitats within many watersheds, often precluding dispersal between subpopulations and jeopardizing the viability of metapopulations (broadly defined as multiple subpopulations that occasionally exchange individuals through dispersal, and are capable of colonizing or rescuing extinct habitat patches). The fragmentation of existing habitat and the continued colonization of existing habitat by nonnative species may represent the most significant current threats to California red-legged frogs; however, California red-legged frog populations are usually threatened by more than one factor.

Numerous studies have demonstrated the impacts of fragmentation on other frog and toad species. Urban populations of common frogs (*Rana temporaria*) were more genetically distinct than rural populations (Hitchins and Beebe 1997). Based on genetic analysis, Reh and Seitz (1990) found that highways effectively isolated *R. temporaria* populations. Kuhn (1987, in Reh and Seitz 1990) estimated that 24 to 40 cars per hour killed 50 percent of common toad (*Bufo bufo*) individuals migrating across a road, while Heine (1987, in Reh and Seitz 1990) found that 26 cars per hour could reduce the survival rate of toads crossing roads to zero. In addition, Fahrig *et al.* (1995) found a significant negative correlation

between traffic density and the density of anuran populations. Thus, roads are an important human-caused landscape component hindering amphibian movement and thereby fragmenting amphibian populations.

In addition to the fragmentation of habitat, upland impacts can have additional significant deleterious impacts on California red-legged frogs. Amphibian species richness (number of species in an area) is related to land use in the watersheds of Puget Sound, Washington (Richter and Azous 1995, 1997); species richness was significantly lower in watersheds where more than 40 percent of the land area was developed. This was attributed to increases in the total water level fluctuations within wetlands. Specifically, urbanization leads to higher peak flows and volumes resulting in increases in the magnitude, frequency, and duration of wetland and stream levels (Reinalt and Taylor 1997). Urbanization within the range of the California red-legged frog often results in similar effects on wetlands. Urbanization results in additional water sources into wetlands and stream courses associated with irrigation and home use activities, especially during the summer months. This often drastically alters the hydroperiod and converts intermittent streams and seasonal wetlands to perennial aquatic habitat. Such alteration allow exotic species such as bullfrogs and nonnative warm water fish species to invade the habitat and further affect California red-legged frog populations. California red-legged frogs are rarely found in areas where a large majority of the watershed has been developed (H.T. Harvey 1997, Service files).

In addition to the modification of hydroperiod, impacts within the watershed can also affect water and habitat quality. As watersheds are developed, the amount of impervious surface increases, resulting in an increase of sediments containing organic matter, pesticides and fertilizers, heavy metals such as hydrocarbons, and other debris into streams and wetlands (U.S. Environmental Protection Agency (EPA) 1993). Skinner *et al.* (1999) found developed watersheds had greater concentrations of toxic effluents than less developed areas with more open space. The decrease in water quality can have profound impacts on native amphibians and other wetland vertebrates. Richter and Azous (1997) observed wetlands adjacent to undeveloped upland areas were more likely to have richer populations of native amphibians. Mensing *et al.*

(1998) found that amphibian abundance was negatively influenced by land use at small scales (e.g., within 0.5 to 1.0 kilometers (km) (0.30 to 0.60 miles (mi))). Habitat fragmentation, wetland conversions, and hydrological alterations cumulatively result in changes in wetland species composition, including amphibians. Amphibian declines can be attributed to increasing numbers of nonnative competitors and predators capable of thriving in disturbed conditions (Harris 1998). Onorato *et al.* (1998) found native fish species were sensitive to anthropogenic disturbances and were becoming less abundant within the study area. They also found introduced generalists able to tolerate lower quality habitat and to replace native fish species within the system. This scenario has been demonstrated in the Santa Clara Valley, California, where the loss of California red-legged frog populations was attributed in part to the invasion of bullfrogs into urbanized areas (H.T. Harvey and Associates 1997).

California red-legged frogs are adapted to survive in a Mediterranean climate where habitat quality varies spatially and temporally. Due to this variability, population sizes can vary widely from year to year. During favorable years, California red-legged frogs can experience extremely high rates of reproduction and produce large numbers of dispersing young resulting in an increase in the number of occupied sites. In contrast, frogs may temporarily disappear from an area during periods of extended drought. Therefore, it is important for the long term survival and recovery of the species to protect those sites that appear to be unoccupied but can be recolonized by dispersing individuals from nearby sub-populations.

California red-legged frogs have been observed using a variety of habitat types, including various aquatic, riparian, and upland habitats. They include, but are not limited to, ephemeral ponds, intermittent streams, seasonal wetlands, springs, seeps, permanent ponds, perennial creeks, manmade aquatic features, marshes, dune ponds, lagoons, riparian corridors, blackberry (*Rubus sp.*) thickets, nonnative annual grasslands, and oak savannas. They are found in both natural and manmade aquatic habitats, and inhabit areas of diverse vegetation cover. Among the variety of habitats where California red-legged frogs have been found, the only common factor is association with a permanent water source. Apparently, California red-legged frogs can use virtually any aquatic system provided a permanent

water source, ideally free of nonnative predators, is nearby. Permanent water sources can include, but are not limited to, ponds, perennial creeks (or permanent plunge pools within intermittent creeks), seeps, and springs. California red-legged frogs may complete their entire life cycle in a particular area (i.e., a pond that is suitable for all life stages) or utilize multiple habitat types. These variable life history characteristics enable California red-legged frogs to change habitat use in response to varying conditions. During a period of abundant rainfall, the entire landscape may become suitable habitat. Conversely, habitat use may be drastically confined during periods of prolonged drought.

Populations of California red-legged frogs are most likely to persist where multiple breeding areas are within an assemblage of habitats used for dispersal (N. Scott and G. Rathbun *in litt.*, USGS, BRD, 1998), a trait typical of many frog and toad species (Laan and Verboom 1990, Reh and Seitz 1990, Mann *et al.* 1991, Sjogren-Gulve 1994, Griffiths 1997, Marsh *et al.* 1999). Breeding sites have been documented in a variety of aquatic habitats. Larvae, juveniles, and adult frogs have been observed inhabiting streams, creeks, ponds, marshes, sag ponds, deep pools and backwaters within streams and creeks, dune ponds, lagoons, estuaries, and artificial impoundments, such as stock ponds. Furthermore, breeding has been documented in these habitat types irrespective of vegetation cover. Frogs often successfully breed in artificial ponds with little or no emergent vegetation, and have been observed to successfully breed and inhabit stream reaches that are not cloaked in riparian vegetation. The importance of riparian vegetation for this species is not well understood. It is believed that riparian plant communities provide good foraging habitat due to the moisture and camouflage that occur within the community, as well as providing areas for dispersal and supporting pools and backwater aquatic areas for breeding. However, other factors are more likely to influence the suitability of aquatic breeding sites, such as the general lack of introduced aquatic predators.

California red-legged frogs often disperse from their breeding habitat to utilize various aquatic, riparian, and upland habitats in the summer. Frogs use a number of habitat features, including ponds, streams, marshes, boulders or rocks, organic debris such as downed trees or logs, industrial debris, and agricultural features, such as drains, watering troughs, or spring boxes. When riparian habitat is present, frogs spend

considerable time resting and feeding in the vegetation (Rathbun *in litt.* 2000). When riparian habitat is absent, frogs spend considerable time resting and feeding under rocks and ledges, both in and out of water (Tatarian, Sonoma State University, *in litt.* 2000). California red-legged frogs can also use small mammal burrows and moist leaf litter (Jennings and Hayes 1994). Stream channels with portions narrower and deeper than 46 cm (18 in.) may also provide habitat (61 FR 25813). This type of dispersal and habitat use is not observed in all California red-legged frogs, however, and is likely dependent on the year to year variations in climate and habitat suitability and varying requisites per life stage.

At any time of the year, adult California red-legged frogs may move from breeding sites. They can be encountered living within streams at distances exceeding 2.9 km (1.8 mi) from the breeding site and have been found further than 100 m (328 ft) from water in adjacent dense riparian vegetation. The subspecies has been observed inhabiting riparian areas for up to 77 days (Bulger *et al.*, USGS, BRD, *in litt.* 2000), but were typically within 60 m (200 ft) of water. During periods of wet weather, starting with the first rains of fall, some individuals may make overland excursions through upland habitats. Most of these overland movements occur at night. Evidence from marked adult frogs on the San Simeon coast of California suggests that frog movements of about 1.6 km (1 mi), via upland habitats, are possible over the course of a wet season (N. Scott and G. Rathbun, USGS, BRD, *in litt.* 1998). Frogs have been observed to make long-distance movements that are straight-line, point-to-point migrations rather than using corridors for moving in between habitats (N. Scott and G. Rathbun, USGS, BRD, *in litt.* 1998). Dispersing adult frogs in northern Santa Cruz County traveled distances from 0.4 km (0.25 mi) to more than 3.2 km (2 mi) without apparent regard to topography, vegetation type, or riparian corridors (J. Bulger *in litt.* 2000). Newly metamorphosed juveniles tend to disperse locally July through September and then disperse away from the breeding habitat during warm rain events (Jennings *in litt.* 2000, Scott *in litt.* 2000). The distances these juveniles are capable of traveling has not been studied, but are likely dependent upon rainfall and moisture levels during and immediately following dispersal events and on habitat availability and environmental variability. The ability of juveniles and adults to disperse is

important for the long term survival and recovery of the species as the dispersing individuals can recolonize areas subjected to localized extinctions.

The manner in which non-dispersing California red-legged frogs use upland habitats is not well understood. The length of time California red-legged frogs spend in upland habitats, patterns of use, and whether juveniles, subadults and adults use uplands differently are under study. Preliminary data from San Simeon and Pico creeks in central California indicated that the number of days when California red-legged frogs were found more than 2.0 m (7 ft) from water ranged from 0 to 56 days (Rathbun *in litt.* 2000), while the majority of California red-legged frogs observed in eastern Contra Costa County spent the entire wet season within streamside habitat (Tatarian *in litt.* 2000).

The healthiest California red-legged frog populations persist as a collection of subpopulations that exchange genetic information through individual dispersal events. These populations persist and flourish where suitable breeding and nonbreeding habitats are interspersed throughout the landscape and are interconnected by unfragmented dispersal habitat. Where this habitat mosaic exists, local extinctions may be counterbalanced by the colonization of new habitat or recolonization of unoccupied areas of suitable habitat. Studies on other frogs and toads have demonstrated that the probability of a habitat being occupied is positively correlated with the distance to the nearest currently occupied habitat patch (Laan and Verboom 1990, Mann *et al.* 1991, Marsh *et al.* 1999). Isolated patches far removed from occupied patches eventually go extinct (Sjogren-Gulve 1994). In addition to distance between habitat patches, the fragmentation of dispersal routes can also result in the isolation of subpopulations. Studies from other anuran species have shown that fragmentation has resulted in problems associated with inbreeding (Reh and Seitz 1990, Hitchings and Beebee 1997) and an increase in unoccupied suitable habitat, and can ultimately result in extinction (Sjogren-Gulve 1994). Thus, connectivity is essential for the long term survival and recovery of California red-legged frogs.

Previous Federal Action

We received a petition from Drs. Mark R. Jennings, Marc P. Hayes, and Dan Holland on January 29, 1992, to list the California red-legged frog as threatened along the coastal portion of its range and endangered throughout the remaining portion of its range. A 90-day petition

finding (57 FR 45761) was published on October 5, 1992, that concluded that substantial information had been presented and that listing the subspecies may be warranted. The California red-legged frog had been previously included in our November 21, 1991, Animal Notice of Review (56 FR 58804) as a category 1 candidate species. Category 1 candidates (now known simply as candidates) are species for which we have sufficient information on biological vulnerability and threats to support proposals to list them as endangered or threatened. On July 19, 1993, we published a 12-month finding on the petitioned action (58 FR 38553), indicating that listing of the frog was warranted and that a proposed rule would be published. We published a proposal to list the frog as an endangered species on February 2, 1994 (59 FR 4888). Based on information provided during the public comment period, we published a final rule listing the frog as threatened on May 23, 1996 (61 FR 25813).

We did not propose to designate critical habitat for the California red-legged frog within the proposed or final listing rule because we believed designation was not prudent. Since California red-legged frogs are found on private property, we determined the frog was at risk from vandalism, and that publication of specific localities would make the species more vulnerable to vandalism, as well as collection for market consumption.

On March 24, 1999, The Earthjustice Legal Defense Fund, on behalf of the Jumping Frog Research Institute, the Southwest Center for Biological Diversity, and the Center for Sierra Nevada Conservation, filed a lawsuit in the Northern District of California against the U.S. Fish and Wildlife Service and Bruce Babbitt, Secretary of the Department of the Interior (Secretary), for failure to designate critical habitat for the California red-legged frog (*Jumping Frog Research Institute et al. v. Babbitt*).

On December 15, 1999, U.S. District Judge William Alsup ordered us to make a prudency determination by August 31, 2000, and issue a final rule by December 29, 2001. On January 18, 2000, Judge Alsup clarified an error in the December 15, 1999, order stating that the Service shall issue a final rule by December 29, 2000. Publication of this proposed rule is consistent with that decision.

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 consideration or protection, and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures that are necessary to bring an endangered species or a threatened species to the point at which listing under the Act is no longer necessary.

Section 4(b)(2) of the Act requires that we base critical habitat proposals upon the best scientific and commercial data available, after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation when the benefits of exclusion outweigh the benefits of including the areas within critical habitat, provided the exclusion will not result in extinction of the species.

Designation of critical habitat can help focus conservation activities for a listed species by identifying areas that contain the physical and biological features that are essential for the conservation of that species. Designation of critical habitat alerts the public as well as land-managing agencies to the importance of these areas.

Critical habitat also identifies areas that may require special management considerations or protection, and may provide protection to areas where significant threats to the species have been identified. Critical habitat receives protection from destruction or adverse modification through required consultation under section 7 of the Act 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 adverse modification or destruction of proposed critical habitat. Aside from the protection that may be provided under section 7, the Act does not provide other forms of protection to lands designated as critical habitat.

Section 7(a)(2) of the Act requires Federal agencies to consult with us to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a threatened or endangered species, or result in the destruction or adverse modification of critical habitat. In 50 CFR 402.02, "jeopardize the continued existence" (of a species) is defined as

engaging in an activity likely to result in an appreciable reduction in the likelihood of survival and recovery of a listed species. "Destruction or adverse modification" (of critical habitat) is defined as a direct or indirect alteration that appreciably diminishes the value of critical habitat for the survival and recovery of the listed species for which critical habitat was designated. Thus, the definitions of "jeopardy" to the species and "adverse modification" of critical habitat are nearly identical (50 CFR 402.02).

Designating critical habitat does not, in itself, lead to recovery of a listed species. Designation does not create a management plan, establish numerical population goals, and prescribe specific management actions (inside or outside of critical habitat). Specific management recommendations for areas designated as critical habitat are most appropriately addressed in recovery, conservation, and management plans, and through section 7 consultations and section 10 permits.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, we are required to base critical habitat determinations on the best scientific and commercial data available, and to consider those physical and biological features (primary constituent elements) that are essential to the conservation of the species. These include, but are not limited to, space for individual and population growth, and for normal behavior; food, water, air, light, minerals, and other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, rearing (or development) of offspring; protection from disturbance; and habitats that are representative of the historic geographical and ecological distributions of a species.

Due to the complex life history and dispersal capabilities of the California red-legged frog, and the dynamic nature of the environment in which they are found, the primary constituent elements described below are found throughout the watersheds that are being proposed as critical habitat. Habitat rehabilitation efforts (e.g., removal of non-native predators) may be necessary in some areas, as well as changes in current management activities, to attain optimal distribution of California red-legged frogs within each critical habitat unit. Critical habitat for California red-legged frogs, as currently proposed, will provide for breeding and nonbreeding habitat and for dispersal between these habitats, as well as allowing for expansion of California red-legged frog

populations, which is vital to the recovery of the species.

The primary constituent elements of critical habitat for California red-legged frogs are: (a) Suitable aquatic habitat; (b) associated uplands; and (c) suitable dispersal habitat connecting suitable aquatic habitat.

Suitable aquatic habitat is essential for providing space, food, and cover needed to sustain eggs, tadpoles, metamorphosing juveniles, nonbreeding subadults, and breeding and nonbreeding adult frogs. Suitable aquatic habitat for California red-legged frogs consists of virtually all still or slow-moving fresh water bodies, including natural and manmade (e.g., stock) ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds, except deep lacustrine water habitat (e.g., deep lakes and reservoirs) inhabited by nonnative predators. The species requires a permanent water source to ensure that aquatic habitat is available year-round. Permanent water sources can include, but are not limited to, ponds, perennial creeks (or permanent plunge pools within intermittent creeks), seeps, and springs. Aquatic habitat used for breeding must have a minimum deep water depth of 20 cm (8 in.), and maintain water during the entire tadpole rearing season (at least March through July). During periods of drought or less than average rainfall, these breeding sites may not hold water long enough for individuals to complete metamorphosis, but these sites would still be considered suitable breeding habitat. To be considered a critical habitat, the aquatic component must consist of two or more breeding sites located within 2 km (1.25 mi) of each other, if at least one of the sites is also a permanent water source, or two or more breeding sites and a permanent water source located within 2 km (1.25 mi), if the breeding sites are not permanent water sources. In addition, the sites must be connected by suitable dispersal habitat, described below.

Associated uplands are essential to maintain the integrity of California red-legged frog aquatic habitat, by providing the conditions essential for providing food, water, nutrients, and protection from disturbance necessary for normal behavior, and provide shelter to frogs inhabiting upland areas adjacent to suitable aquatic habitat. Key conditions include the timing, duration, and extent of water moving within the system, filtering capacity, and maintaining the habitat to favor California red-legged frogs and discourage the colonization of exotic species such as bullfrogs. Suitable upland habitat consists of all upland areas within 150 m (500 ft), or

no further than the watershed boundary, of the edge of suitable aquatic habitat.

Suitable dispersal habitat provides connectivity among California red-legged frog aquatic habitat (and associated upland) patches. While frogs can pass many obstacles, and do not require a particular type of habitat for dispersal, the habitat connecting suitable breeding locations and other aquatic habitat must be free of barriers and at least 150 m (500 ft) wide. Suitable dispersal habitat consists of all upland and wetland habitat free of barriers that connects two or more patches of suitable aquatic habitat within 2 km (1.25 miles) of one another. Dispersal barriers include heavily traveled roads (with more than 30 cars per hour), moderate to high density urban or industrial developments, and large reservoirs. Areas where barriers to dispersal occur would not be considered critical habitat. Agricultural lands such as row crops, orchards, vineyards, and pastures do not constitute barriers to California red-legged frog dispersal.

In summary, the primary constituent elements consist of three components. At a minimum, this will include two (or more) suitable breeding locations, a permanent water source, associated uplands surrounding these water bodies up to 150 m (500 ft) from the water's edge, all within 2 km (1.25) miles of one another and connected by barrier-free dispersal habitat that is at least 150 m (500 ft) in width. When these elements are all present, all other suitable aquatic habitat within 2 km (1.25 mi), and free of dispersal barriers, is also considered critical habitat.

Criteria Used To Identify Critical Habitat

As stated previously, California red-legged frogs use a variety of aquatic habitats. These habitats include, but are not limited to, ephemeral ponds, intermittent streams, seasonal wetlands, springs, seeps, permanent ponds, perennial creeks, manmade aquatic features (e.g., stock ponds), marshes, dune ponds, and lagoons. California red-legged frogs are found in both natural and manmade aquatic habitats and inhabit areas irrespective of vegetation cover; therefore, virtually any aquatic system can be utilized if a permanent water source is nearby.

The long-term probability of the survival and recovery of California red-legged frogs is dependant upon the protection of existing breeding habitat, the movements of individuals between aquatic patches, and the ability to recolonize newly created or vacated habitats. Recolonization, which is vital to the recovery of the species, is

dependent upon landscape characteristics including the distance between patches, the number and severity of barriers between patches, and the presence of interconnecting elements (e.g., habitat where frogs can rehydrate), and upon the dispersal capability of California red-legged frogs (Laan and Verboom 1990). California red-legged frogs have been documented to travel 3.6 km (2.25 mi) in a virtual straight line migration from nonbreeding to breeding habitats (Bulger, *in litt.* 2000). We believe that this is likely the upward limit of dispersal capability, and that the proposed 2 km (1.25 mi) dispersal element will ensure that connectivity between breeding habitats will be maintained within areas proposed as critical habitat, thus allowing these areas to persist as, or develop into, viable metapopulations. The largest known populations of California red-legged frogs exist as subpopulations with several breeding habitats located within 2 km of each other (Service files).

The areas we are proposing to designate as critical habitat currently provide all of those habitat components essential for the primary biological needs of California red-legged frogs as described in the draft recovery plan and defined by the primary constituent elements. We did not include all areas currently occupied by California red-legged frogs, but propose those areas that possess a large population of frogs, represent unique ecological characteristics, or represent historic geographic areas where California red-legged frogs can be reestablished. Ponds that support a small population of California red-legged frogs (*i.e.*, provide all of the requirements for the aquatic primary constituent element), but are not surrounded by suitable upland habitat or are cut off from other breeding ponds or permanent water sources by impassible dispersal barriers, would not be considered critical habitat.

In designating critical habitat for the California red-legged frog, we have reviewed the overall approach to the conservation of the California red-legged frog undertaken by the local, State, Tribal and Federal agencies operating within the species' range since its listing in 1996. Based on this review and current literature, we considered several criteria in the selection and proposal of specific boundaries for California red-legged frog critical habitat. Such criteria focused on designating units (1) throughout the geographic and elevational range of the species; (2) that would result in protecting populations that are geographically distributed in a manner that allows for the continued

existence of viable metapopulations despite fluctuations in the status of subpopulations; and (3) that possess large continuous blocks of occupied habitat, representing source populations and/or unique ecological characteristics, or areas where California red-legged frogs can be reestablished which is essential to the recovery of the species. This task was accomplished by first determining the occupancy status of areas. Areas were considered to possess extant populations if California red-legged frogs have been documented in that area since 1985. We then selected areas that are inhabited by populations (source populations) that are capable of maintaining their current population levels and capable of providing individuals to recruit into subpopulations found in adjacent areas. We also selected several areas that lack source populations, but represent areas with unique ecological significance. These areas include extant populations found on the periphery of the current range, both extant and extirpated areas that represent the historic distribution of the species, and areas that provide connectivity among source populations or between source populations and unoccupied extirpated areas. Of the approximate 2,175,000 ha (5,373,650 ac) that is designated as critical habitat, only around 17 percent (311,600 ha (769,900 ac)) is considered unoccupied habitat. Ninety percent of this unoccupied habitat (279,500 ha (690,600 ac)) occurs on Federal lands; the remaining 10 percent is primarily privately owned lands that are inholdings surrounded by Federal lands. Both unoccupied and occupied areas not included in this designation can still be targets for recovery actions, including reestablishing populations. Furthermore, California red-legged frogs in areas not included in this designation are still afforded the protections of a threatened species under the Act.

The proposed designation of 150 m (500 ft) of upland habitat surrounding aquatic habitat is based in part on the work of Bulger *et al.* (*in litt.* 2000), who found that frogs were capable of inhabiting upland habitats within 60 m (200 feet) of aquatic habitat for continuous durations exceeding 20 days, and Rathbun (*in litt.* 2000), who observed frogs inhabiting riparian habitat for durations exceeding 30 days. In addition to the occupation of upland habitat, the surrounding watershed plays an important role in the health and integrity of the aquatic habitat. The 150 m (500 ft) upland habitat designation will help minimize changes in frequency, duration, and timing of

the wetland hydroperiod, minimize the input of toxic sediments, and help maintain connectivity between habitats. It will also further minimize the creation of habitat conditions found to favor exotic species and/or urban adapted predators (Mensing *et al.* 1998, Onorato *et al.* 1998, H.T. Harvey and Associates 1997, Richter and Azous 1997, Jennings and Hayes 1994, Hayes and Jennings 1986). The 150 m (500 ft) upland habitat designation will ensure California red-legged frogs continue to exist within the watershed in multiple breeding areas embedded within a matrix of dispersal habitats.

Methods

The proposed critical habitat units were delineated by first creating data layers in a geographic information system (GIS) format of all of the core areas as proposed in the recovery plan. We then used the California Watershed Map (CALWATER version 2.2), a coverage developed by California Department of Water Resources (DWR), to delineate boundaries in a 1:240,000 format. CALWATER is a set of watershed boundaries meeting standardized delineation criteria, consisting of six levels of increasing specificity, with the primary purpose of assigning a single, unique code to a specific watershed polygon (e.g., a planning watershed). CALWATER delineates the boundaries of planning watersheds 1,200 to 4,000 ha (3,000 to 10,000 ac) in size. We used these planning watersheds as the minimum mapping unit to delineate critical habitat units because they represent functional management units that affect the quality of aquatic habitat and thus are extremely relevant to amphibian populations. The use of planning watersheds also allowed us to delineate critical habitat that protects habitat quality, breeding and nonbreeding habitat, and dispersal habitat in a manner consistent with the overall goal of protecting and promoting metapopulations. We selected all of the planning watersheds that intersected areas of high California red-legged frog abundance, areas essential to maintain connectivity, and/or areas of unique ecological significance. In areas where planning watersheds were large and/or watersheds were significantly altered hydrologically, we used alternative structural, political, or topographic boundaries (e.g., roads, county boundaries, elevation contour lines) as critical habitat boundaries because in these areas the benefits of using planning watersheds were limited. In addition, we used digital data, as well as hard copy maps, from the National

Wetlands Inventory (NWI), which provides information on the characteristics, extent, and status of the nation's wetlands and deepwater habitats.

When initially drafting this proposed rule, we investigated using digital data from the NWI. We planned to use these data to more precisely map those areas that possess the primary constituent elements. However, not all of the pertinent NWI maps had been digitized and we lacked the time necessary to acquire the data. Even though the data are not digitally available, they are available on 1:124,000 scale maps. These maps can be used to determine where patches of suitable breeding and other aquatic habitat exist within a matrix of dispersal habitat and thus delineate critical habitat areas. Using this information allows for identification of areas possessing the primary constituent elements associated with aquatic and dispersal habitats and to identify areas containing, or capable of supporting, viable metapopulations. Hard copies of the NWI maps can be viewed at any of our field offices, and are also available for purchase from the USGS, Menlo Park-ESIC, Building 3, MS 532, Rm. 3128, 345 Middlefield Road, Menlo Park, California 94025-3591.

We could not depend solely on federally owned lands for proposed critical habitat designation as these lands are limited in geographic location, size, and habitat quality. In addition to the federally owned lands, we are proposing to designate critical habitat on non-Federal public lands and privately owned lands, including land owned by the California Department of Parks and Recreation, the California Department of Fish and Game, DWR, and the University of California, as well as regional and local park lands and water district lands. Areas proposed 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 are in need of special management considerations or

protection. We also propose areas that are outside the current distribution of the species, but are essential for the conservation of the species (e.g., recovery).

We also considered the existing status of non-Federal and private lands in proposing areas as critical habitat. Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed species incidental to otherwise lawful activities. An incidental take permit application must be supported by a habitat conservation plan (HCP) that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the permitted incidental take. Non-Federal and private lands that are covered by an existing operative HCP and executed implementation agreement (IA) for California red-legged frogs under section 10(a)(1)(B) of the Act receive special management and protection under the terms of the HCP/IA and are therefore not being proposed for inclusion in critical habitat as discussed in section 3(5) of the Act.

We considered, and are proposing, portions of the Santa Ynez Band of the Chumash Mission Indian Reservation because we believe that riparian and adjoining upland areas on Tribal lands may be essential to the conservation of California red-legged frogs. However, the short amount of time allowed to propose critical habitat precluded us from adequately coordinating with the Tribe. Subsequent to this proposal, we will consult with the Tribe before making a final determination as to whether any Tribal lands should be included as critical habitat for California red-legged frogs. We will consider whether these Tribal lands require special management considerations or protection. We may also exclude some or all of these lands from critical habitat upon a determination that the benefits of excluding them outweighs the benefits of designating these areas as critical habitat, as provided under section 4(b)(2) of the Act. This consultation will take place under the auspices of the Presidential

Memorandum of April 29, 1994, which require us to coordinate with federally recognized Tribes on a Government-to-Government basis.

In selecting areas of proposed critical habitat, we made an effort to avoid developed areas, such as towns and other similar lands, that are unlikely to contribute to California red-legged frog conservation. However, we did not map critical habitat in sufficient detail 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 California red-legged frog. Areas of existing features and structures within the boundaries of the mapped units, such as buildings, roads, aqueducts, railroads, airports, other paved areas, lawns, and other urban landscaped areas, and uplands removed from suitable aquatic and dispersal habitat, will not contain one or more of the primary constituent elements. Federal actions limited to these areas, therefore, would not trigger a section 7 consultation, unless they affect the species and/or primary constituent elements in adjacent critical habitat.

In summary, the proposed critical habitat areas described below constitute our best assessment of areas needed for the species' conservation and recovery.

Proposed Critical Habitat Designation

Table 1 shows the approximate acreage of proposed critical habitat by county and land ownership. Critical habitat proposed for the California red-legged frog includes approximately 2,175,000 ha (5,373,650 ac) in Alameda, Butte, Calaveras, Contra Costa, El Dorado, Fresno, Kern, Los Angeles, Marin, Mariposa, Merced, Monterey, Napa, Plumas, Riverside, San Benito, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Sierra, Solano, Sonoma, Stanislaus, Tehama, Tuolumne, Ventura, and Yuba counties, California (see Map 1 in the Proposed Regulation Promulgation section).

TABLE 1.—APPROXIMATE AREA ENCOMPASSING PROPOSED CRITICAL HABITAT IN HECTARES (HA) (ACRES (AC)) BY COUNTY AND LAND OWNERSHIP

County	Federal land	Local/State land	Private land	Total
Plumas	57,500 ha (141,100 ac)	NA	8,200 ha (20,250 ac)	65,700 ha (162,350 ac)
Butte	19,000 ha (47,000 ac)	100 ha (250 ac)	11,700 ha (28,900 ac)	30,800 ha (76,150 ac)
Sierra	1,400 ha (3,450 ac)	NA	300 ha (750 ac)	1,700 ha (4,200 ac)
Yuba	3,800 ha (9,400 ac)	NA	2,800 ha (6,900 ac)	6,600 ha (16,300 ac)

TABLE 1.—APPROXIMATE AREA ENCOMPASSING PROPOSED CRITICAL HABITAT IN HECTARES (HA) (ACRES (AC)) BY COUNTY AND LAND OWNERSHIP—Continued

County	Federal land	Local/State land	Private land	Total
El Dorado	20,200 ha (49,900 ac)	NA	17,200 ha (42,500 ac)	37,400 ha (92,400 ac)
Calaveras	1,500 ha (3,700 ac)	NA	2,900 ha (7,150 ac)	4,400 ha (10,850 ac)
Tuolumne	172,300 ha (425,750 ac)	200 ha (500 ac)	14,600 ha (36,100 ac)	187,100 ha (462,350 ac)
Mariposa	1,400 ha (3,450 ac)	NA	400 ha (1,000 ac)	1,800 ha (4,450 ac)
Tehama	24,600 ha (60,800 ac)	300 ha (750 ac)	23,500 ha (58,100 ac)	48,400 ha (119,650 ac)
Napa	2,500 ha (6,200 ac)	1,000 ha (2,500 ac)	20,800 ha (51,400 ac)	24,300 ha (60,100 ac)
Sonoma	NA	1,800 ha (4,450 ac)	12,600 ha (31,150 ac)	14,400 ha (35,600 ac)
Solano	700 ha (1,750 ac)	200 ha (500 ac)	14,700 ha (35,100 ac)	15,100 ha (37,350 ac)
Marin	30,700 ha (75,850 ac)	13,600 ha (33,600 ac)	43,100 ha (106,500 ac)	87,400 ha (215,950 ac)
Alameda	600 ha (1,500 ac)	2,500 ha (6,200 ac)	105,500 ha (260,700 ac)	108,600 ha (268,400 ac)
Contra Costa	400 ha (1,000 ac)	7,600 ha (18,800 ac)	57,000 ha (140,850 ac)	65,000 ha (160,650 ac)
Santa Clara	300 ha (750 ac)	15,700 ha (38,800 ac)	73,800 ha (182,350 ac)	89,800 ha (221,900 ac)
San Joaquin	NA	NA	11,700 ha (28,900 ac)	11,700 ha (28,900 ac)
Stanislaus	NA	10,900 ha (26,950 ac)	6,100 ha (15,100 ac)	17,000 ha (42,050 ac)
Merced	900 ha (2,200 ac)	9,700 ha (24,000 ac)	65,800 ha (162,600 ac)	76,400 ha (188,800 ac)
Fresno	9,000 ha (22,250 ac)	NA	1,400 ha (3,450 ac)	10,400 ha (25,700 ac)
San Benito	11,800 ha (29,150 ac)	NA	105,000 ha (259,450 ac)	116,800 ha (288,600 ac)
San Mateo	700 ha (1,750 ac)	12,200 ha (30,150 ac)	98,900 ha (244,400 ac)	111,800 ha (276,300 ac)
Santa Cruz	100 ha (250 ac)	10,700 ha (26,450 ac)	40,600 ha (100,300 ac)	51,400 ha (127,000 ac)
Monterey	16,400 ha (40,500 ac)	6,700 ha (16,550 ac)	137,200 ha (339,000 ac)	160,300 ha (396,050 ac)
San Luis Obispo	11,300 ha (27,900 ac)	2,700 ha (6,650 ac)	214,100 ha (529,050 ac)	228,100 ha (563,600 ac)
Kern	700 ha (1,750 ac)	NA	12,300 ha (30,400 ac)	13,000 ha (32,150 ac)
Santa Barbara	119,600 ha (295,550 ac)	1,200 ha (2,950 ac)	145,900 ha (360,500 ac)	266,700 ha (659,000 ac)
Ventura	125,900 ha (311,100 ac)	100 ha (250 ac)	11,600 ha (28,650 ac)	137,600 ha (340,000 ac)
Los Angeles	90,300 ha (223,150 ac)	5,300 ha (13,100 ac)	64,700 ha (159,850 ac)	160,300 ha (396,100 ac)
Riverside	12,100 ha (29,900 ac)	1,100 ha (2,700 ac)	6,900 ha (17,050 ac)	20,100 ha (49,650 ac)
San Diego	4,500 ha (11,100 ac)	NA	400 ha (1,000 ac)	4,900 ha (12,100 ac)
Total	740,200 ha (1,829,150 ac)	103,600 ha (256,100 ac)	1,331,200 ha (3,288,400 ac)	2,175,000 ha (5,373,650 ac)

A brief description of each critical habitat unit is given below:

Unit 1. North Fork Feather Unit

Unit 1 consists of drainages found within the North Fork Feather River drainage, including watersheds within Bucks Creek, Grizzly Creek, Mayo Creek, Rock Creek, Three Lakes, and Lower Yellow Creek. The unit

encompasses approximately 81,930 ha (202,450 ac). The North Fork Feather unit is the northeastern-most unit of the proposed critical habitat units. This unit is located in Plumas and Butte counties. Approximately 86 percent of the unit consists of Federal lands managed by Plumas and Lassen National Forests,

and the majority of the remaining area is privately owned.

Unit 2. South Fork Feather-Indian Creek Unit

Unit 2 consists of drainages found within the South Fork Feather River and the Yuba River watersheds found in Butte, Plumas, Yuba, and Sierra counties. Watersheds that drain into the

South Fork Feather River include Lewis Flat, Oroleve Creek, and Rock Creek; watersheds that flow into the Yuba River include Indian Creek, Brushy Creek, and Gold Run. The unit encompasses approximately 23,000 ha (56,840 ac). Approximately 50 percent of this unit is managed by Plumas National Forest; the remainder is mostly privately owned.

Unit 3. Weber Creek-Cosumnes Unit

Unit 3 consists of drainages in the Weber Creek and North Fork Cosumnes River watersheds in El Dorado County. The Ringold Creek, South Fork Weber Creek, North Fork Weber Creek, and China Creek drainages form the Weber Creek portion of this unit. Drainages that form the North Fork Cosumnes portion include Clear Creek, North Steely Creek, Jenkinson Lake, Headwaters Camp Creek, Snow Creek, North Canyon, Van Horn Creek, Capps Crossing, Leek Spring Valley, Hazel Creek, and North Sly Park Creek. The unit encompasses approximately 37,400 ha (92,400 ac), of which 54 percent is within the El Dorado National Forest and 46 percent is privately owned.

Unit 4. South Fork Calaveras River Unit

Unit 4 consists of the Lower O'Neil Creek, Dirty Gulch, Old Gulch, Middle San Antonio Creek, Indian Creek, and Upper San Domingo Creek watersheds in Calaveras County. The unit encompasses approximately 4,410 ha (10,910 ac); 65 percent of this unit is in private ownership, and 35 percent is managed by the Bureau of Land Management (BLM).

Unit 5. Yosemite Unit

Unit 5 consists of drainages found in the tributaries of the Tuolumne River and Jordan Creek, a tributary to the Merced River, in Tuolumne and Mariposa counties. The unit encompasses approximately 188,970 ha (466,940 ac), of which 92 percent is managed by Stanislaus National Forest or the National Park Service (NPS); the majority of the remaining 8 percent is privately owned.

Unit 6. Headwaters of Cottonwood Creek Unit

Unit 6 consists of drainages found within the headwaters of Cottonwood and Red Bank creeks in Tehama County. The unit consists of the watersheds that form Bear Gulch, Long Gulch, Maple Creek, Cracker Canyon, Panther Gulch, Buck Creek, Devils Hole Gulch, Elkhorn Creek, Slides Creek, Buck Creek, Harvey Creek, and Sulphur Creek in the Cottonwood Creek drainage, and the watersheds that form Jackass Canyon,

Little Grizzly Creek, Sunflower Gulch, Red Bank Creek, and Alder Creek in the Red Bank Creek drainage. The unit encompasses approximately 48,400 ha (119,600 ac), of which approximately 51 percent is within the boundaries of the Mendocino National Forest; the majority of the remaining 48 percent is privately owned.

Unit 7. Cleary Preserve Unit

Unit 7 consists of drainages found within the watersheds that form the tributaries to Pope Creek in Napa County. The unit encompasses approximately 14,280 ha (35,280 ac), of which approximately 89 percent is privately owned; the remaining 11 percent is managed by Federal or State agencies.

Unit 8. Annadel State Park Preserve Unit

Unit 8 consists of the Upper Sonoma Creek watershed found partially within Annadel State Park in Sonoma County. The unit encompasses approximately 4,910 ha (12,130 ac), of which approximately 86 percent is privately owned and 14 percent is managed by the California Department of Parks and Recreation (CDPR).

Unit 9. Stebbins Cold Canyon Preserve Unit

Unit 9 consists of drainages found within and adjacent to Stebbins Cold Canyon Preserve and the Quail Ridge Wilderness Preserve in Napa and Solano counties. The unit is comprised of watersheds that form Capell Creek, including Wragg Canyon, Markley Canyon, Steel Canyon, and the Wild Horse Canyon watershed. The unit encompasses approximately 9,250 ha (22,860 ac), of which approximately 71 percent is privately owned and 29 percent is managed by the University of California Natural Reserve System (UCNRS), the Quail Ridge Wilderness Conservancy, and the BLM.

Unit 10. Sears Point Unit

Unit 10 consists of Stage Gulch and Lower Petaluma River watersheds, tributaries to the Petaluma River. This unit is located in and adjacent to Sears Point in Sonoma and Marin counties and encompasses approximately 9,940 ha (24,570 ac), of which 86 percent is privately owned, and the remaining 14 percent is managed by State and local governments.

Unit 11. American Canyon Unit

Unit 11 consists of watersheds within and adjacent to American Canyon Creek and Sulphur Springs Creek in Napa and Solano counties. Watersheds within this

unit include Fagan Creek, a tributary to the Napa River, the Jameson Canyon watershed, and the Sky Valley and Pine Lake watersheds that flow into Lake Herman. The unit encompasses approximately 15,780 ha (39,000 ac), of which 99 percent is privately owned.

Unit 12. Point Reyes Unit

Unit 12 consists of watersheds within and adjacent to Bolinas Lagoon, Point Reyes, and Tomales Bay in Marin and Sonoma counties. This unit encompasses approximately 84,520 ha (208,840 ac); 52 percent is managed by the NPS, CDP, and the Marin Municipal Water District and 48 percent is privately owned.

Unit 13. Tiburon Peninsula Unit

Unit 13 consists of the Belvedere Lagoon watershed within and adjacent to the Tiburon Peninsula in Marin County. The unit encompasses approximately 2,560 ha (6,320 ac), of which 85 percent is privately owned; the remaining 15 percent is managed by State and local governments.

Unit 14. San Mateo-Northern Santa Cruz Unit

Unit 14 consists of coastal watersheds within San Mateo County and Northern Santa Cruz County that drain into the Pacific Ocean, and tributaries that form the watersheds of Pescadero Creek, San Gregorio Creek, San Mateo Creek, and Corte Madera Creek in San Mateo, Santa Clara, and Santa Cruz counties. The unit encompasses approximately 131,230 ha (324,280 ac), of which 85 percent is privately owned; the remaining 15 percent is primarily managed by the San Francisco Public Utilities District (SFPUD) and CDP.

Unit 15. East Bay-Diablo Range Unit

Unit 15 consists of tributaries of San Lorenzo Creek, Alameda Creek, Kellogg Creek, Marsh Creek, Corral Hollow Creek, Orestimba Creek, Coyote Creek, Pacheco Creek, Romero Creek, Ortigalita Creek, Los Banos Creek, Panoche Creek, and the San Benito River in Contra Costa, Alameda, San Joaquin, Santa Clara, Stanislaus, San Benito, Merced, and Fresno counties. The unit encompasses approximately 456,930 ha (1,129,050 ac), of which 86 percent is privately owned; the remaining 14 percent is managed in part by East Bay Regional Park District, East Bay Municipal Utilities District, USBR, Department of Energy, Department of Defense (DOD), CDP, SFPUD, CDFG, Santa Clara Valley Water District, and DWR.

Unit 16. Pajaro River Unit

Unit 16 consists of portions of two watersheds that are part of the Pajaro River Drainage, the Flint Hills watershed in San Benito County and the Santa Clara Valley watershed in Santa Clara and San Benito counties. This unit provides a link between the inner and outer Coast ranges (units 15 and 17). The unit encompasses approximately 20,400 ha (50,400 ac) and is all privately owned.

Unit 17. Elkhorn Slough-Salinas River Unit

Unit 17 consists of coastal drainages of southern Santa Cruz County, including Aptos, Soquel, Hinckley, and Bates creeks; Elkhorn Slough, and the watersheds that form its tributaries; and the watersheds of the lower Pajaro River, including Sargent Creek, Corralitos Lagoon, Soda Lake, and the Mouth of the Pajaro River. The unit is located in Santa Cruz, Monterey, and San Benito counties. The unit encompasses approximately 76,950 ha (190,140 ac), of which 93 percent is privately owned; the remaining 7 percent is managed by CDPR and the Elkhorn Slough National Estuarine Research Reserve.

Unit 18. Carmel River Unit

Unit 18 consists of drainages comprising the Carmel River watersheds in Monterey County. This unit encompasses approximately 65,310 ha (161,380 ac), of which approximately 32 percent of the land is managed by the Los Padres National Forest and CDPR, while the remaining 68 percent is privately owned.

Unit 19. The Pinnacles Unit

Unit 19 consists of two watersheds, Gloria Lake and George Hansen Canyon, in San Benito and Monterey counties. This unit encompasses approximately 11,470 ha (28,330 ac), of which 56 percent is managed by the NPS and BLM; the remaining 44 is privately owned.

Unit 20. Estrella River/Cholame Creek Unit

Unit 20 consists of the drainages comprising the Cholame Creek, Estrella River, and the Saw Tooth Ridge watersheds in Monterey, San Luis Obispo and Kern counties. The unit encompasses approximately 161,600 ha (399,310 ac), of which 99 percent is privately owned and the remaining 1 percent is federally managed.

Unit 21. San Simeon Unit-Morro Bay Unit

Unit 21 consists of the coastal watersheds of San Luis Obispo County from Arroyo de la Cruz south to Los Osos Creek. The unit encompasses approximately 92,690 (229,030 ac), of which 94 percent is privately owned; the remaining 6 percent is managed by CDPR and Federal agencies.

Unit 22. Lopez Lake-Arroyo Grande Creek Unit

Unit 22 consists of the watersheds of Arroyo Grande Creek and its tributaries; these include Los Berros Creek, Tarspring Creek, Guaya Canyon, Carpenter Canyon, Wittenberg Creek, Clapboard Canyon, Vasquez Creek, Big Falls Canyon, Nipomo Mesa, and Cienega Valley in San Luis Obispo County. The unit encompasses approximately 36,160 ha (89,350 ac), of which 80 percent is privately owned and the remaining 20 percent is managed by Los Padres National Forest and BLM.

Unit 23. Coastal Dunes Unit

Unit 23 consists of coastal watersheds comprising the coastal dune ponds from Arroyo Grande south to San Antonio Creek in San Luis Obispo and Santa Barbara counties. The unit encompasses approximately 43,810 ha (108,250 ac), of which 49 percent is managed by Federal, State, and local municipalities (primarily DOD and CDPR), with the remaining 51 percent in private ownership.

Unit 24. Santa Ynez River Unit

Unit 24 consists of watersheds forming the Santa Ynez River in Santa Barbara County. The unit encompasses approximately 117,070 ha (289,270 ac), of which approximately 59 percent is privately owned; the remaining 41 percent is managed by the Bureau of Reclamation (BOR) and Los Padres National Forest.

Unit 25. Sisquoc River Unit

Unit 25 consists of watersheds forming the drainages of the Sisquoc River in Santa Barbara County. These include the Cherokee Spring, Ernest Blanco Spring, Horse Canyon, La Brea Creek, Manzano Creek, Peach Tree Spring, and the Lower Sisquoc River watersheds. The unit encompasses approximately 55,260 ha (136,550 ac), of which 45 percent is privately owned, and 55 percent is managed by the Los Padres National Forest.

Unit 26. Coastal Santa Barbara Unit

Unit 26 consists of coastal tributaries including the Bear Creek watershed,

east to and including the Ellwood Canyon watershed in Santa Barbara County. The unit encompasses approximately 56,440 ha (139,470 ac), of which 36 percent is managed by the Los Padres National Forest and the CDPR; the remaining 64 percent is privately owned.

Unit 27. Matilija-Sespe-Piru Creek Unit

This unit consists of watersheds that comprise portions of the Matilija, Sespe, and Piru Creek drainages in Santa Barbara, Ventura, and Los Angeles counties. The unit encompasses approximately 149,750 ha (370,030 ac), of which 96 percent is managed by the Los Padres National Forest and 4 percent is privately owned.

Unit 28. San Francisquito-Amargosa Creek Unit

This unit consists of the drainages that consist of San Francisquito and Amargosa Creeks in Los Angeles County, including all or parts of the Lancaster, Rock Creek, Acton, Bouquet Eastern, Mint Canyon, and Sierra Pelona watersheds. The unit encompasses approximately 83,760 ha (206,960 ac), of which 55 percent is privately owned; the remaining 45 percent is primarily managed by the Angeles National Forest.

Unit 29. Malibu Coastal Unit

This unit consists of the upper coastal watersheds in Ventura and Los Angeles counties that drain into the Pacific Ocean near Malibu, including the West La Virgenes Canyon, Lindero Canyon, Sherwood, Triunfo Canyon, East La Virgenes Canyon, and Monte Nido watersheds. The unit encompasses approximately 29,960 ha (74,030 ac), of which approximately 77 percent is privately owned and 23 percent is managed in part by the NPS, CDPR, and local municipalities.

Unit 30. Santa Rosa Plateau/Santa Ana Mountains Unit

This unit includes portions of the Santa Rosa Plateau Ecological Reserve, the Santa Rosa Plateau, and the southern extent of the Santa Ana Mountains in Riverside and San Diego counties, including portions of Deluz Creek, Murrieta, and San Mateo Canyon watersheds. The unit encompasses approximately 25,000 ha (61,770 ac), of which approximately 66 percent is managed by the U.S. Forest Service (Forest Service); approximately 30 percent is privately owned (a portion of which is owned by The Nature Conservancy); and the remaining 4 percent is managed by the State of California.

Unit 31. Tujunga Unit

This unit consists of portions of the Tujunga watershed in Los Angeles County. The unit encompasses approximately 36,290 ha (89,660 ac), of which approximately 91 percent is managed by the Forest Service, 6 percent is privately owned, and the remaining 3 percent is managed by the State of California.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out 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 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) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory.

We may issue a formal conference report if requested by a Federal agency. Formal conference reports on proposed critical habitat contain an opinion that is prepared according to 50 CFR 402.14, as if critical habitat were designated. We may adopt the formal conference report as the biological opinion when the critical habitat is designated, if no 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 ensure that the 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 likelihood of jeopardizing the continued existence of listed species and 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 in instances where we have already reviewed an action for its effects on a listed species if critical habitat is subsequently designated. Consequently, some Federal agencies may request reinitiation of consultation or conferencing with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Section 4(b)(8) of the Act requires us to describe in any proposed or final regulation that designates critical habitat a description and evaluation of those activities involving a Federal action that may adversely modify or destroy such habitat or that may be affected by such designation. When determining whether any of these activities may adversely modify or destroy critical habitat, we base our analysis on the effects of the action on the entire critical habitat area and not just on the portion where the activity will occur. Adverse effects on constituent elements or individual segments of critical habitat units generally do not result in an adverse modification determination unless that

loss, when added to the environmental baseline, is likely to appreciably diminish the capability of the critical habitat to satisfy essential requirements of the species. In other words, activities that may destroy or adversely modify critical habitat include those that alter the primary constituent elements (defined above) to an extent that the value of critical habitat for both the survival and recovery of the California red-legged frog is appreciably reduced.

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 (50 CFR 402.02). 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 (50 CFR 402.02).

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 when the habitat is occupied by the species. The purpose of designating critical habitat is to contribute to a species' conservation, which by definition equates to survival and recovery. Section 7 prohibitions against the destruction or adverse modification of critical habitat apply to actions that would impair survival and recovery of the listed species. As a result of the direct link between critical habitat and recovery, the prohibition against destruction or adverse modification of the critical habitat should provide for the protection of the critical habitat's ability to contribute fully to a species' recovery. In those cases, the ramifications of its designation are few or none. Designation of critical habitat for the California red-legged frog is not likely to result in a regulatory burden above that already in place due to the presence of the listed species in areas currently occupied. In those cases where proposed actions occur in unoccupied critical habitat, it is conceivable that an action that adversely modifies

unoccupied critical habitat would not also result in a jeopardy conclusion in a section 7 consultation; this would result in an additional level of regulatory protection on lands where Federally authorized activities occur.

Activities that, when carried out, funded, or authorized by a Federal agency, that may affect critical habitat and require that a section 7 consultation be conducted include, but are not limited to:

(1) Sale, exchange, or lease of lands owned by Bureau of Land Management (BLM), U.S. Bureau of Reclamation (USBR), Department of Defense (DOD), Department of Energy (DOE), National Park Service (NPS), or Forest Service (USFS);

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

(3) Regulation of water flows, water delivery, damming, diversion, and channelization by the Bureau of Reclamation and the Army Corps of Engineers or other water transfers, diversion, or impoundment, groundwater pumping, irrigation activity that causes barriers or deterrents to dispersal, inundates or drains habitat, or significantly converts habitat;

(4) Regulation of grazing, recreation, mining, or logging by the BLM, USFS, USBR, DOD, or NPS;

(5) Funding and implementation of disaster relief projects by the Federal Emergency Management Agency (FEMA), including erosion control, flood control, streambank repair to reduce the risk of loss of property;

(6) Funding and regulation of new road construction or road improvements by the Federal Highways Administration;

(7) Funding of construction or development activities by the Department of Housing and Urban Development or other agencies that destroy, fragment, or appreciably degrade suitable habitat;

(8) Clearing of vegetation and hydrological modifications by the Department of Energy or other agencies; and

(9) Promulgation of air and water quality standards under the Clean Air Act and the Clean Water Act and the clean up of toxic waste and superfund sites under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) by the EPA.

Activities on private or State lands requiring a permit or funding from a Federal agency, such as a permit from the U.S. Army Corps of Engineers (Army

Corps) under section 404 of the Clean Water Act, or some other Federal action, including funding (e.g., Federal Highway Administration, Federal Aviation Administration, or Federal Emergency Management Agency) will also continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal lands that are not federally funded or permitted do not require section 7 consultation.

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 California red-legged frog may be considered an adverse modification of critical habitat. We note that such activities may also jeopardize the continued existence of the species.

If you have questions regarding whether specific activities will constitute adverse modification of critical habitat, contact the Field Supervisor at our Sacramento, Ventura, or Carlsbad Fish and Wildlife Offices (see **FOR FURTHER INFORMATION CONTACT** 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 N.E. 11th Ave, Portland, OR 97232 (telephone 503/231-2063; facsimile 503/231-6243).

Relationship to Habitat Conservation Plans

A number of small habitat conservation planning efforts have been completed within the range of the California red-legged frog. Habitat conservation plans (HCPs) currently under development are intended to provide for protection and management of habitat areas essential for the conservation of the California red-legged frog, while directing development and habitat modification to nonessential 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 California red-legged frog. 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 suitable breeding and nonbreeding habitat within a matrix of dispersal habitat. 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 proposed HCPs and proposed projects 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 provide technical assistance and work closely with applicants throughout the development of HCPs to identify lands essential for the long-term conservation of California red-legged frogs and appropriate conservation and management actions. Several HCP efforts are currently under way that address listed and nonlisted species in areas within the range of the California red-legged frogs and in areas we propose as critical habitat. These HCPs, which will incorporate appropriate adaptive management, should provide for the conservation of the 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. We are soliciting comments on whether future approval of HCPs and issuance of section 10(a)(1)(B) permits for the California red-legged frog should trigger revision of designated critical habitat to exclude lands within the HCP area and, if so, by what mechanism (see Public Comments Solicited section).

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available, and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of designating these areas as critical habitat. We cannot exclude areas from critical habitat when the exclusion will result in the extinction of the species. We will conduct an analysis of the economic impacts of designating these areas as critical habitat prior to a final determination. When completed, we will announce the availability of the draft economic analysis with a notice in the **Federal Register**, and, if necessary, reopen the comment period at that time to accept comments on the economic analysis or further comments on the proposed rule.

Public Comments Solicited

We intend that any final action resulting from this proposal will be as accurate and as effective as possible.

Therefore, we solicit comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why any habitat should or should not be determined to be critical habitat for California red-legged frogs as provided by section 4 of the Act, including whether the benefits of designation will outweigh any benefits of exclusion;

(2) Specific information on the distribution of California red-legged frogs, the amount and distribution of the species' habitat, and what habitat is essential to the conservation of the species, and why;

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

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

(5) Economic and other values associated with designating critical habitat for California red-legged frogs, such as those derived from nonconsumptive uses (e.g., hiking, camping, bird-watching, enhanced watershed protection, improved air quality, increased soil retention, "existence values", and reductions in administrative costs).

In this proposed rule, we do not propose to designate critical habitat on non-Federal lands within the boundaries of any existing HCP with an executed Implementation Agreement and permit for California red-legged frogs approved under section 10(a)(1)(B) of the Act on or before the date of the final rule designating critical habitat. We believe that, since an existing HCP provides long-term commitments to conserve the species and areas essential to the conservation of California red-legged frogs, such areas do not meet the definition of critical habitat because they do not need special management considerations or protection. However, we are soliciting comments on the appropriateness of this approach, and on the following or other alternative approaches for critical habitat designation in areas covered by existing approved HCPs:

(1) Designate critical habitat without regard to existing HCP boundaries and

allow the section 7 consultation process on the issuance of the incidental take permit to ensure that any take we authorize will not destroy or adversely modify critical habitat;

(2) Designate reserves, preserves, and other conservation lands identified by approved HCPs on the premise that they encompass areas that are essential to conservation of the species within the HCP area and will continue to require special management protection in the future. Under this approach, all other lands covered by existing approved HCPs where incidental take for California red-legged frogs is authorized under a legally operative permit pursuant to section 10(a)(1)(B) of the Act would be excluded from critical habitat.

The amount of critical habitat we designate for California red-legged frogs in a final rule may either increase or decrease, depending upon which approach we adopt for dealing with designation in areas of existing approved HCPs.

Several conservation planning efforts are now under way within the range of the California red-legged frog, and other listed and nonlisted species, in areas we are proposing as critical habitat. Where these HCPs are currently under development, we are proposing to designate as critical habitat the areas that we believe are essential to the conservation of the species and that need special management or protection. We invite comments on the appropriateness of this approach.

In addition, we invite comments on the following, or other approaches, for addressing critical habitat within the boundaries of future approved HCPs upon issuance of section 10(a)(1)(B) permits for California red-legged frogs:

(1) Retain critical habitat designation within the HCP boundaries and use the section 7 consultation process on the issuance of the incidental take permit to ensure that any take we authorize will not destroy or adversely modify critical habitat;

(2) Revise the critical habitat designation upon approval of the HCP and issuance of the section 10(a)(1)(B) permit to retain only preserve areas, on the premise that they encompass areas essential to the conservation of the species within the HCP area and require special management and protection in the future. Assuming that we conclude, at the time an HCP is approved and the associated incidental take permit is issued, that the plan protects those areas essential to the conservation of California red-legged frogs, we would revise the critical habitat designation to exclude areas outside the reserves,

preserves, or other conservation lands established under the plan. Consistent with our listing program priorities, we would publish a proposed rule in the **Federal Register** to revise the critical habitat boundaries; or

(3) Remove designated critical habitat entirely from within the boundaries of an HCP when the plan is approved (including preserve lands), on the premise that the HCP establishes long-term commitments to conserve the species, and no further special management or protection is required. Consistent with our listing program priorities, we would publish a proposed rule in the **Federal Register** to revise the critical habitat boundaries.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours.

Individual respondents may request that we withhold their home address from the rulemaking record, which we will honor to the extent allowable by law. In some circumstances, we would withhold from the rulemaking record a respondent's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comments. However, we will not consider anonymous comments. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

If you would like to submit comments by e-mail (see **ADDRESSES** section), please submit as an ASCII file and avoid the use of special characters and any form of encryption. Please also include "Attn: RIN 1018-AG32" and your name and return address in your e-mail message. If you do not receive a confirmation from the system that we have received your e-mail message, contact us directly by calling our Sacramento Fish and Wildlife Office at phone number 916/414-6600.

Peer Review

In accordance with our policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure listing decisions are based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the **Federal Register**. We will invite these peer reviewers to comment,

during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat.

We will consider all comments and information received during the comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. We will conduct four public hearings on this proposal, for commenters who may wish to make their comments orally. The hearings will take place on:

(1) Tuesday, September 19, 2000, at the Holiday Inn Ventura, 450 East Harbor Blvd., Ventura, California. There will be two sessions: An afternoon session from 1 to 3 pm, and an evening session from 6 to 8 pm.

(2) Thursday, September 21, 2000, at the Embassy Suites, 333 Madonna Road, San Luis Obispo, California. There will be two sessions: an afternoon session from 1 to 3 pm, and an evening session from 6 to 8 pm.

(3) Tuesday, September 26, 2000, at the Best Western Monarch Hotel, 6680 Regional Street, Dublin, California. There will be two sessions: an afternoon session from 1 to 3 pm, and an evening session from 6 to 8 pm.

(4) Thursday, September 28, 2000, at the Holiday Inn Sacramento Northeast, 5321 Date Avenue, Sacramento, California. There will be two sessions: an afternoon session from 1 to 3 pm, and an evening session from 6 to 8 pm.

Anyone wishing to make an oral statement for the record is encouraged

to provide a written copy of their statement and present it to us at the hearing. In the event of large attendance, the time allotted for oral statements may be limited. Oral and written statements receive equal consideration. There are no limits to the length of written comments presented at the hearing or mailed to us.

Clarity of the Rule

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

(1) Are the requirements in the document clearly stated?

(2) Does the proposed rule contain technical language or jargon that interferes with the clarity?

(3) Does the format of the proposed rule (grouping and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity?

(4) Is the description of the proposed rule in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposed rule? What else could we do to make the proposed rule easier to understand?

Required Determinations

Regulatory Planning and Review

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

(a) This rule will not have an annual economic effect of \$100 million or more or adversely affect an economic sector,

productivity, jobs, the environment, or other units of government.

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 (Table 2). Section 7 requires Federal agencies to ensure that they do not jeopardize the continued existence of the species. Based upon our experience with the species and its needs, we conclude that any Federal action or authorized action on occupied habitat that could potentially cause destruction or adverse modification of the proposed critical habitat would currently be considered as "jeopardy" under the Act. Accordingly, the designation of 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 in areas currently occupied by California red-legged frogs. However, on the unoccupied lands proposed as critical habitat, 90 percent of which are Federal lands, a Federal action could potentially cause an adverse modification of proposed critical habitat, but not be considered as "jeopardy" under the Act. Therefore, there is an addition incremental impact in these circumstances. Non-Federal persons that do not have any Federal involvement with 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.

TABLE 2.—IMPACTS OF CALIFORNIA RED-LEGGED FROG LISTING AND CRITICAL HABITAT DESIGNATION

Categories of activities	Activities potentially affected by species listing only ¹	Additional activities potentially affected by critical habitat critical habitat designation ¹
Federal Activities Potentially Affected ²	Grazing permits, commercial or or silvicultural logging prescriptions, 404 permits, Flood Control projects, Federal Emergency Management Act (FEMA) activities, Federal Highway Administration actions, Federal Housing Act actions.	None in occupied habitat. In unoccupied habitat, no additional types of activities will be affected, but consultation, previously not required due to listing, will be required on these activities.
Private or other non-Federal Activities Potentially Affected ³ .	Activities that require a Federal action (permit, authorization, or funding) and may remove or destroy California red-legged frog habitat by mechanical, chemical, or other means (e.g., grading, overgrazing, timber harvesting within riparian areas, construction, road building, herbicide application, recreational use) or appreciably decrease habitat value or quality through indirect effects (e.g., edge effects, invasion of exotic plants or animals, fragmentation of habitat).	None in occupied habitat. In unoccupied habitat, no additional types of.

¹ These columns represent activities potentially affected by the critical habitat designation in addition to those activities potentially affected by listing the species.

² Activities initiated by a Federal agency.

³ 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 California red-legged frog since the listing in 1996. The prohibition against adverse modification of critical habitat is not expected to impose any additional restrictions to those that currently exist in the proposed critical habitat on currently occupied lands. There may be additional restrictions for unoccupied lands. However, we will continue to review this proposed action for any inconsistencies with other Federal agency 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 critical habitat currently occupied, and only minimal effects in areas currently unoccupied since the areas being proposed as unoccupied critical habitat is primarily on Federal lands.

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

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

In the economic analysis (under section 4 of the Act), we will determine whether designation of critical habitat will have a significant effect on a substantial number of small entities. As discussed under Regulatory Planning and Review above, this rule is not expected to result in any restrictions in addition to those currently in existence for occupied areas of critical habitat. As indicated on Table 1 (see Proposed Critical Habitat Designation section), we propose designation of property owned by State and local governments and private property and identify the types of Federal actions or authorized activities that are of potential concern (Table 2). If these activities are sponsored by Federal agencies, they may be carried out by small entities (as defined by the Regulatory Flexibility Act) through contract, grant, permit, or other Federal authorization. As

discussed above, these actions are currently required to comply with the listing protections of the Act, and the designation of critical habitat is not anticipated to have any additional effects on these activities in areas of critical habitat except on unoccupied lands proposed as critical habitat, 90 percent of which are on Federal lands. For actions on non-Federal property that do not have a Federal connection (such as funding or authorization), the current restrictions concerning take of the species remain in effect, and this rule will have no additional restrictions.

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

In the economic analysis, we will determine whether designation of critical habitat will cause (a) any effect on the economy of \$100 million or more, (b) any increases in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions in the economic analysis, or (c) any significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. As discussed above, we anticipate that the designation of critical habitat will not have any additional effects on these activities in occupied areas of critical habitat.

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

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

(a) This rule 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 modify or destroy 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 to result from critical habitat designation on occupied lands.

(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, this 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 California red-legged frog. Due to current public knowledge of the species protection, the prohibition against take of the species both within and outside of the designated areas, the fact that critical habitat on occupied lands provides no incremental restrictions, and because 90 percent of the unoccupied lands occur on Federal lands, we do not anticipate that property values will be affected by the critical habitat designation. Additionally, critical habitat designation does not preclude development of habitat conservation plans and issuance of incidental take permits. Landowners in areas that are included in the designated critical habitat will continue to have opportunity to utilize their property in ways consistent with the survival of the California red-legged frog. This proposed rule will not "take" private property and will not alter the value of private property. Critical habitat designation is only applicable to Federal lands and to private lands if a Federal nexus exists.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, the Service requested information from and coordinated development of this critical habitat proposal with appropriate State resource agencies in California. We will continue to coordinate any future designation of critical habitat for the California red-legged frog with the appropriate State agencies. The designation of critical habitat in areas currently occupied by the California red-legged frog imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat

3. Amend § 17.95(d) by adding critical habitat for the California red-legged frog (*Rana aurora draytonii*) in the same alphabetical order as this species occurs in 17.11(h), to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *
(d) *Amphibians.*
* * * * *

California Red-Legged Frog (*Rana aurora draytonii*)

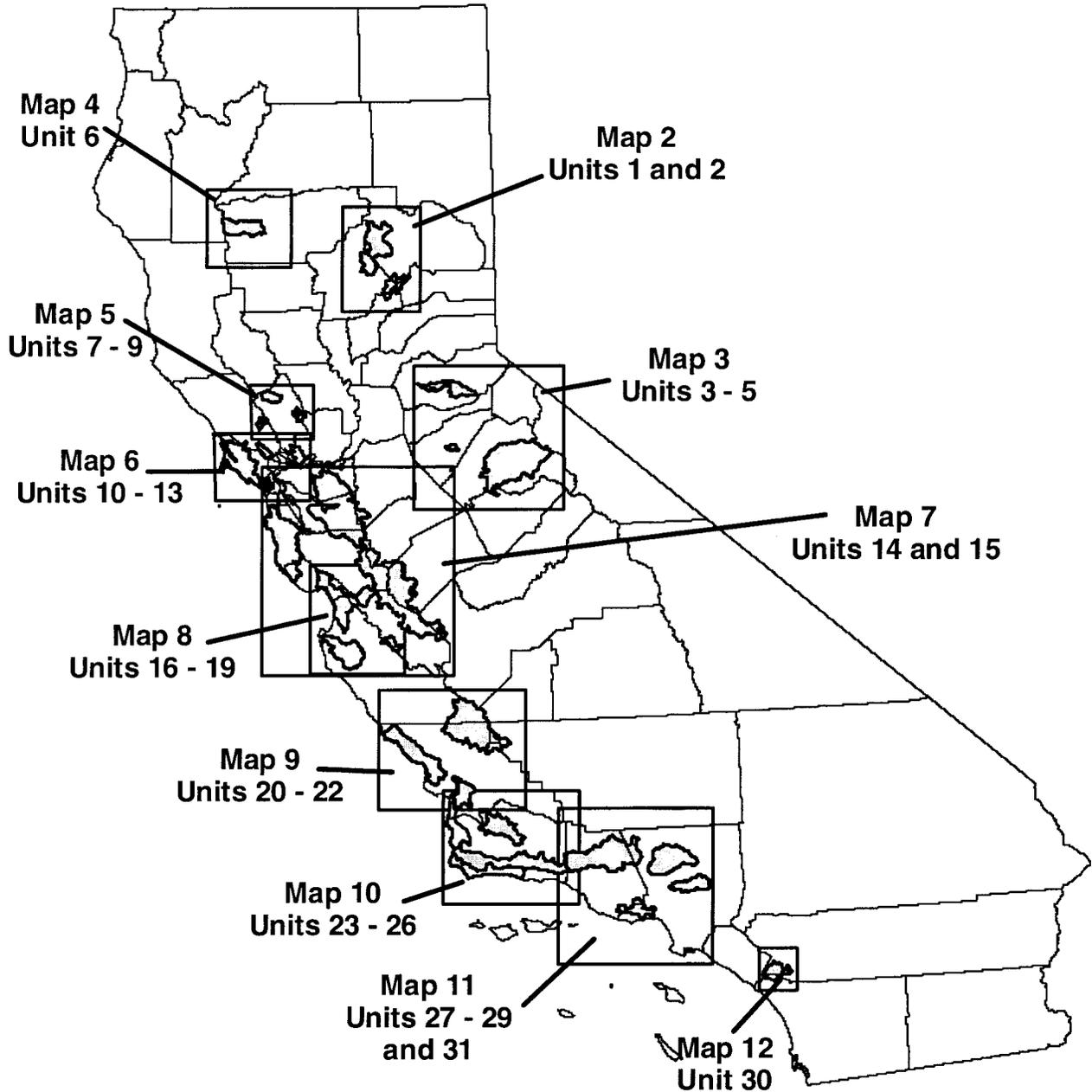
Primary constituent elements of the California red-legged frog, found in the designated watersheds in the following 31 units, include aquatic, dispersal, and upland habitat components. Aquatic

components consists of all still or slow-flowing freshwater aquatic features possessing minimum water depths of 20 cm (8 in.), with the exception of deep lacustrine water habitat (lakes and reservoirs) inhabited by nonnative predators, that are essential for providing space, food, and cover needed to sustain eggs, tadpoles, metamorphosing juveniles, nonbreeding subadults, and breeding and nonbreeding adult frogs, and are found in areas with two or more suitable breeding locations and a permanent water source with no more than 2 km (1.25 mi) separating these locations. Dispersal habitat consists of upland and

aquatic areas, free of barriers, essential for providing connectivity between aquatic areas identified above. Upland habitat component are areas within 150 m (500 ft) from the edge of the aquatic primary constituent element. In situations where a watershed boundary is less than 150 m (500 ft) from suitable habitat, the top of the watershed shall be the boundary for this constituent element. Existing features and structures, such as buildings, roads, railroads, urban development, and other features not containing primary constituent elements, are not considered critical habitat.

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Map 1 - Index Proposed California Red Legged Frog Critical Habitat Units



Map Unit 1: The following watersheds in Plumas and/or Butte Counties, California: Grizzly Creek (1841), Mosquito Creek (1845), Caribou (1886), Rock Creek Reservoir (1926), Milk Ranch Creek (2008), Right Hand Salt Rock Creek (2025), Rainbow Point (2052), Haskins Valley (2103), Grizzly Forebay (2083), Duffey Dome (2092), Coyote Gap (2166), Bush Creek (2181),

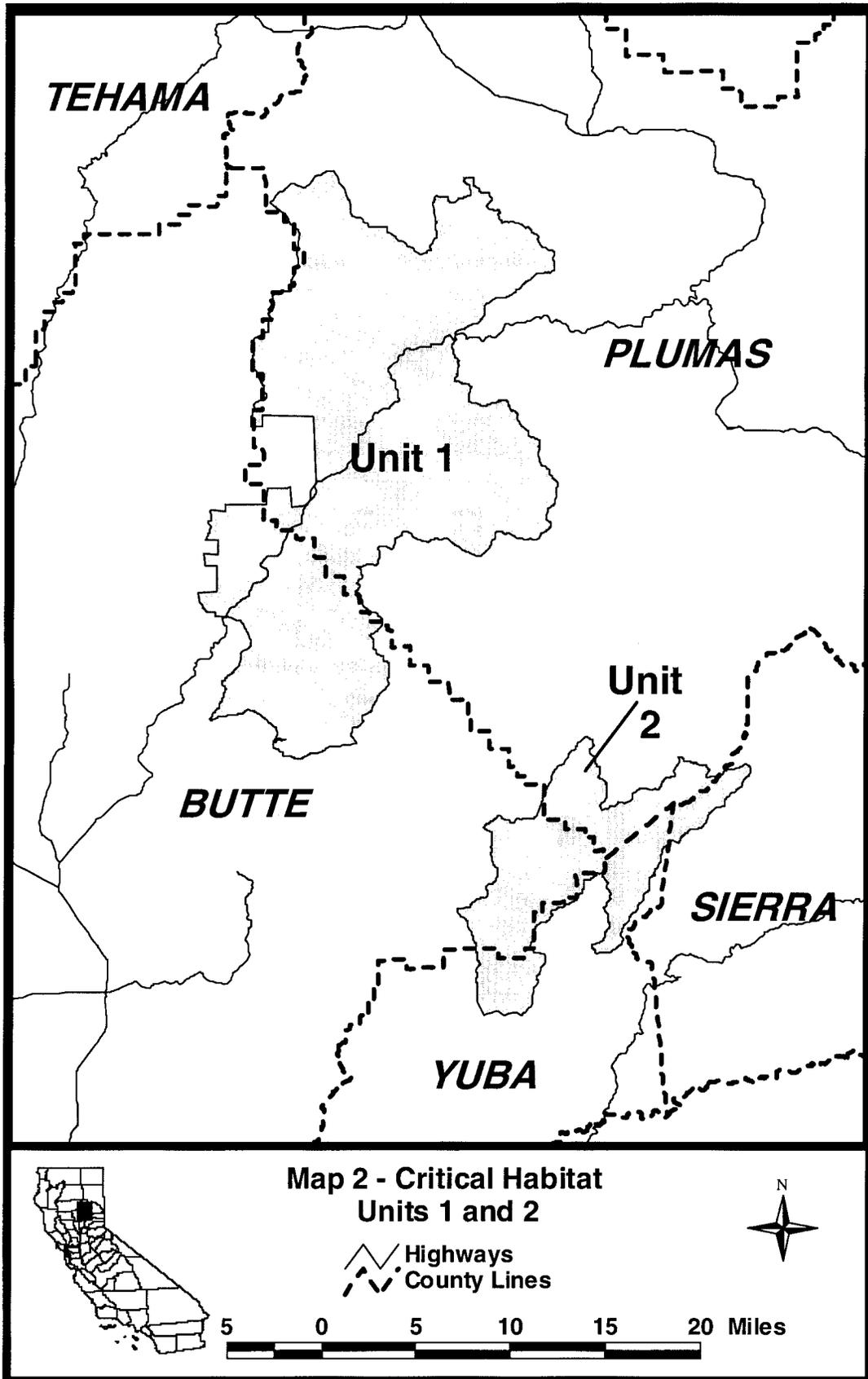
Kelly Reservoir (2204), Mosquito Creek (2236), Chino Creek (2201), Dogwood Creek (2112), Lockerman Creek (2077), Swamp Creek (2067), Lower Bucks Creek (2046), North Valley Creek (2011), Flying Pan (1965), Chambers Creek (1986), Chips Creek (1929), Squirrel Creek (1912), and Soda Creek (1881).

Note: Map follows:

Map Unit 2: The following watersheds in Plumas, Butte, Sierra, and/or Yuba counties, California: Rock Creek (2285), Lewis Flat (2316), Gold Run (2304), Brushy Creek (2345), Indian Creek (2446), and Oroleve Creek (2410).

Note: Map follows:

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Map Unit 3: The following watersheds in El Dorado County, California: North Fork Weber Creek (3127), Jenkinson Lake (3133), Hazel Creek (3135), North Sly Park Creek (3145), Headwaters Camp Creek (3189), Leek Spring Valley (3225), Capps Crossing (3222), North Steely Creek (3246), North Canyon (3224), Van Horn Creek (3202), Snow Creek (3167), Clear Creek (3157), South Fork Weber Creek (3160), Ringold Creek (3164), and China Creek (3159).

Note: Map follows:

Map Unit 4: The following watersheds in Calaveras County, California: Lower O'Neil Creek (3586), Dirty Gulch (3594), Old Gulch (3634), Middle San Antonio Creek (3583), Indian Creek (3639), and Upper San Domingo Creek (3620).

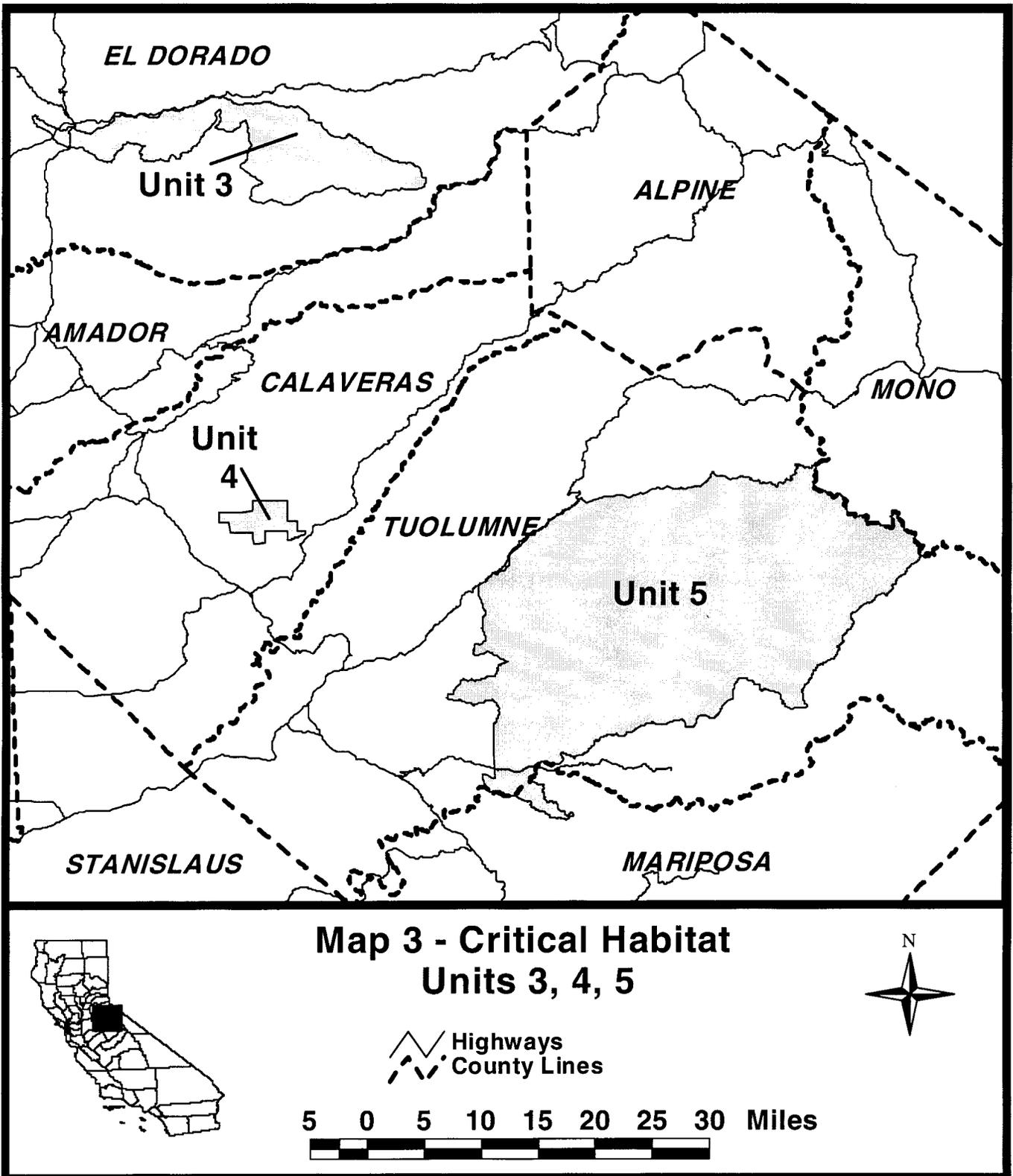
Note: Map follows:

Map Unit 5: The following watersheds in Tuolumne and/or Mariposa counties, California: North Fork Cherry Creek (3593), East Fork Cherry Creek (3613), Upper Jack Main Canyon (3626), Tilden Creek (3650), Stubblefield Canyon (3660), Thompson Canyon (3648), Kerrick Canyon (3664), Breeze Creek (3748), Tueulala (3796), Poopenaut Valley (3822), Base Line Camp (3840), Preston Falls (3858), Corral Creek (3827), Gold Queen Mine (3930), Jordan Creek (3989), Hells Hollow Creek (3940), Grapevine Creek (3863), Hunter Creek (3815), Basin Creek (3758), Sugarpine Creek (3675), Brownes Meadow (3631), Bell Creek (3618), Lily Creek (3615), Piute Creek (3610), Spring Creek (3600), Buck Meadow Creek (3608), Cherry Lake (3763), Lake Eleanor (3791), Rosasco Lake (3659), Wilson

Ridge (3806), White Fir Creek (3737), Big Lake (3661), Kibble Creek (3709), Plum Flat (3850), Granite Creek (3834), Miguel Creek (3783), Kendrick Creek (3658), Bartlett Creek (3706), Eleanor Creek (3723), Upper Frog Creek (3690), Rock Creek (3685), Clavey River from mile 27 to 30 (3668), Trout Creek (3651), Cottonwood Creek (3767), Twomile Creek (3719), Hull Creek (3671), Crane Creek (3753), Skunk Creek (3802), Reynolds Creek (3707), Bear Spring Creek (3821), Bull Meadow Creek (3868), Bourland Creek (3677), Upper Frog Creek (3766), Brannigan Lake (3732), Lower Jack Main Canyon (3691), Tilden Canyon Creek (3705), East Side Tiltill Mtn. (3750), Deep Canyon (3756), and Tiltill Creek (3760).

Note: Map follows:

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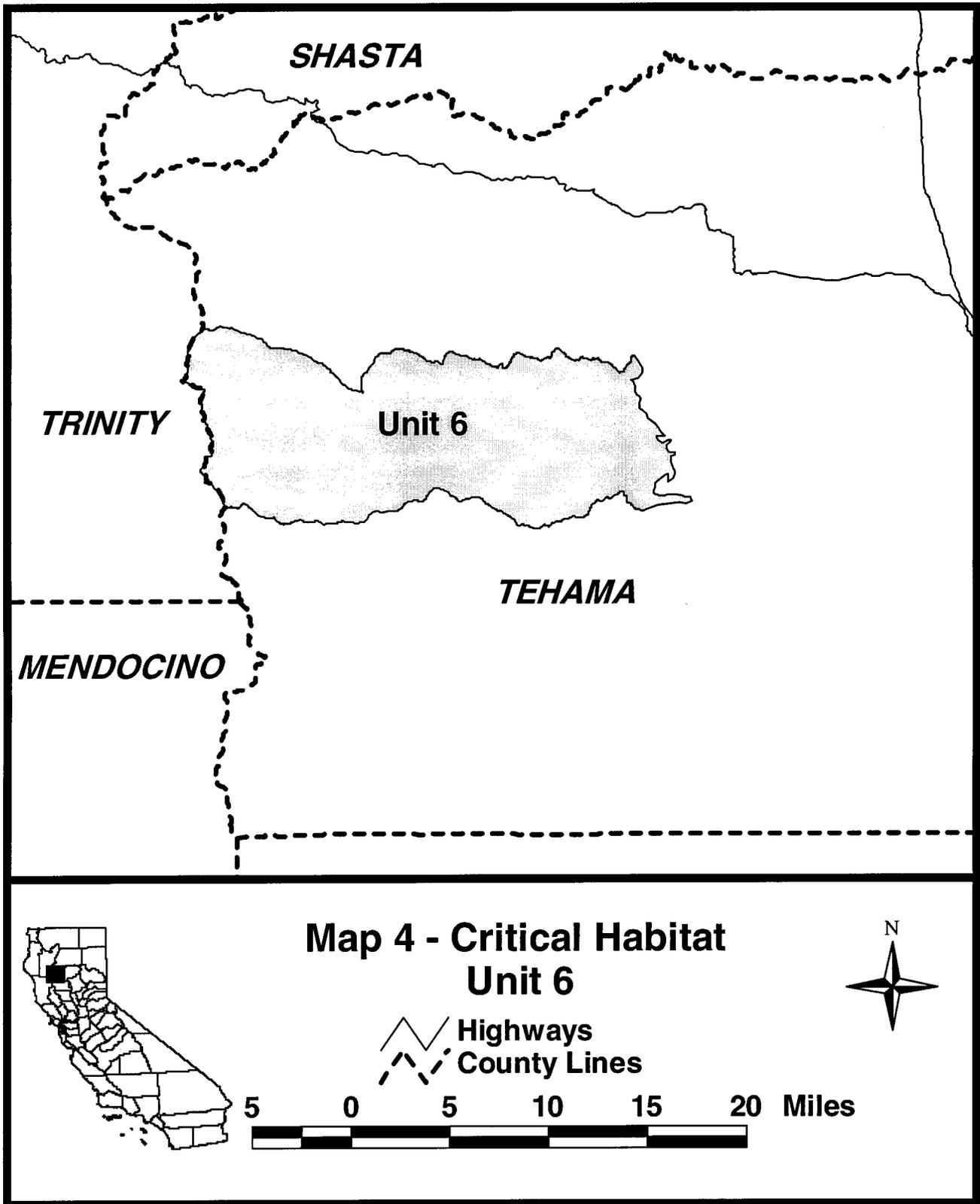
Map Unit 6: The following watersheds in Tehama County, California: Bear Gulch (1815), Long Gulch (1821), Maple Creek (1822), Panther Gulch (1828), Buck Creek (1831), Cracker Canyon

(1823), Jackass Canyon (1834), Little Grizzly Creek (1874), Sunflower Gulch (1902), Red Bank (1910), Alder Creek (1914), Sulphur Creek (1909), Slides Creek (1878), Harvey Creek (1894), Buck

Creek (1893), Elkhorn Creek (1870), and Devils Hole Gulch (1867).

Note: Map follows:

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Map Unit 7: The following watersheds in Napa County, California: James Creek (3220), Pope Canyon (3235), Burton Creek (3278), and Swartz Creek (3250).

Note: Map follows:

Map Unit 8: The following watershed in Sonoma County, California: Upper Sonoma Creek (3440).

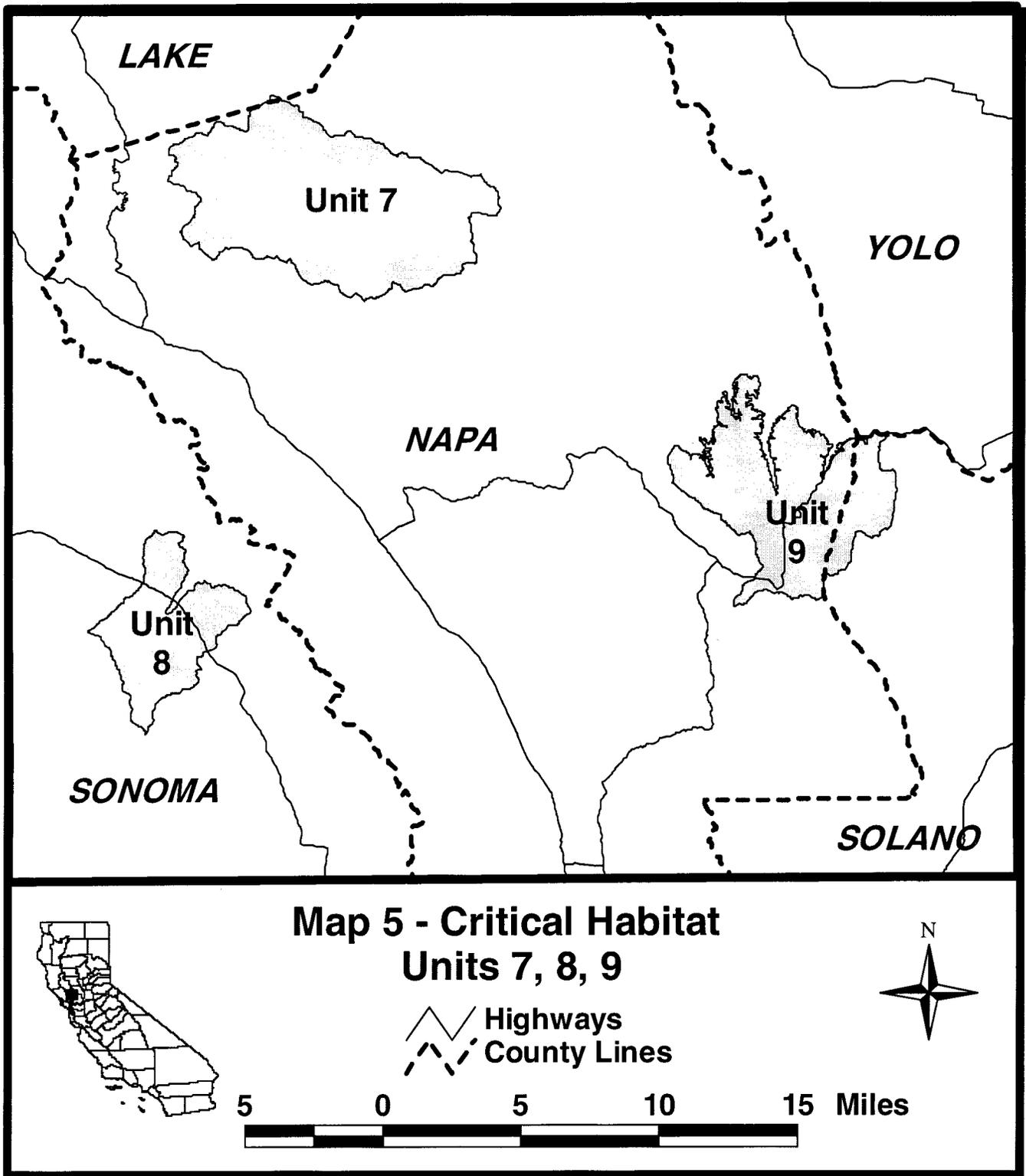
Note: Map follows:

Map Unit 9: The following watersheds in Napa and/or Solano counties,

California: Steel Canyon (3390), Wragg Canyon (3361), Markley Canyon (3378), and Wild Horse Canyon (3395).

Note: Map follows: insert map 5.

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Map Unit 10: All or portions of the following watersheds in Marin and/or Sonoma counties, California: Lower Petaluma River [East of Hwy 101, south of Hwy 116 to intersection with Frates Road; south and east of Frates Road] (3553), and Stage Gulch (3638).

Note: Map follows:

Map Unit 11: The following watersheds in Napa and/or Solano counties, California: Fagan Creek [south of Hwy 12] (3587), Jameson Canyon [south of Hwy 12] (3609), Pine Lake (3687), and Sky Valley (3678).

Note: Map follows:

Map Unit 12: The following watersheds in Sonoma and/or Marin counties, California: Keys Creek (3599), Chileno Creek (3622), Laguna Lake (3605), Salmon Creek (3672), Sausal (3684), Halleck Creek (3734), Nicasio Creek (3762), San Geronimo Creek (3798), Kent Lake (3813), Upper Lagunitas Creek (3851), Fern Creek (3897), Rodeo Lagoon (3959), Audobon Canyon (3870), Pine Gulch Creek (3838), Alamere Creek (3807), Glenbrook Creek (3745), Home Ranch Creek (3716), Point Reyes Peninsula (3729), Abbotts Lagoon

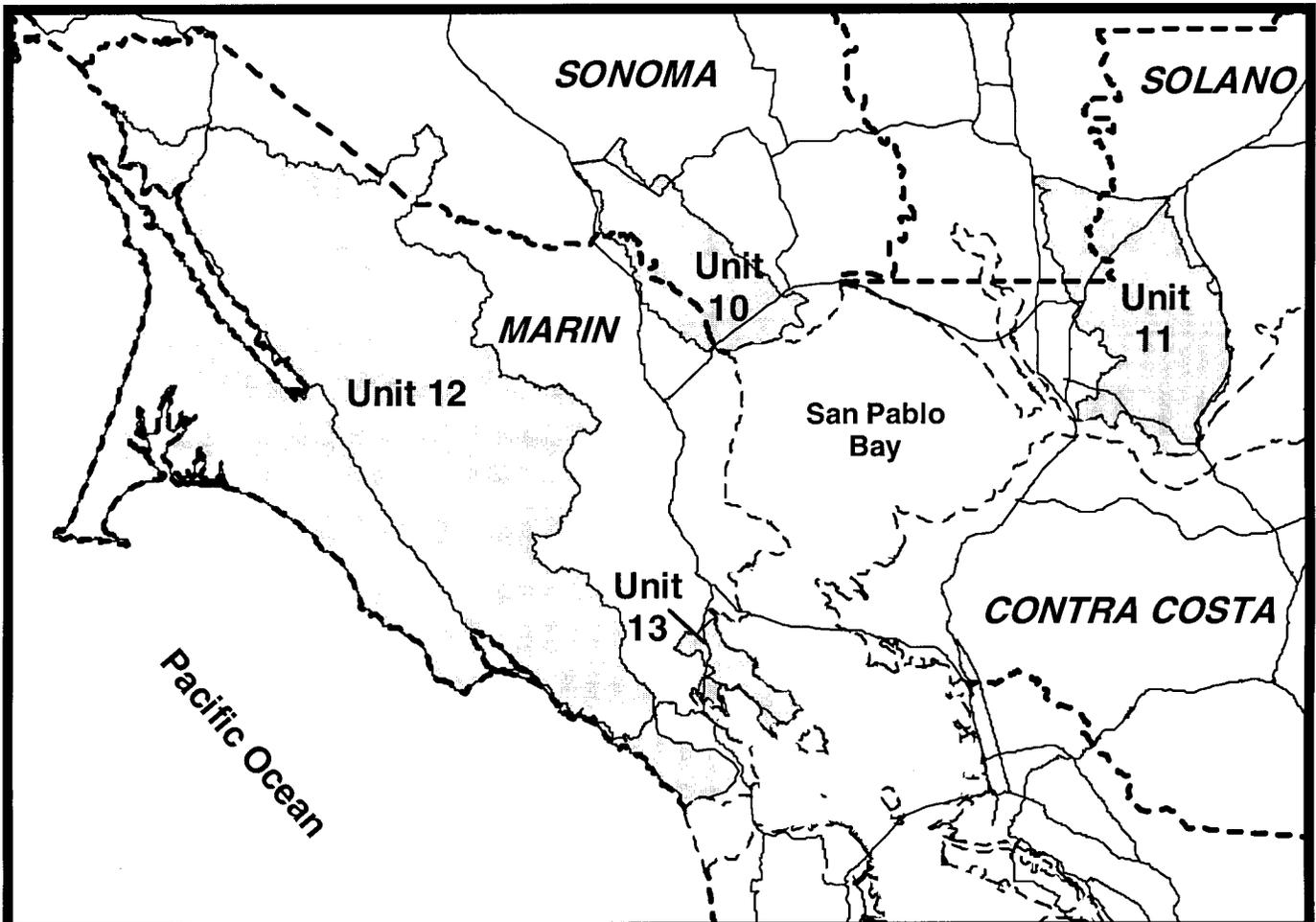
(3640), Inverness (3621), Tomasini Canyon (3715), Millerton Gulch (3694), Nicks Cove (3641), Nicasio Reservoir (3714), Lower Lagunitas Creek (3736), Olema Creek (3792), Lower Walker Creek (3623), Upper Walker Creek (3653), and Arroyo (3689).

Note: Map follows:

Map Unit 13: The following watershed in Marin County, California: Belvedere Lagoon (3884).

Note: Map follows:

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**Map 6 - Critical Habitat
Units 10,11,12,13**



 **Highways**
 **County Lines**



Map Unit 14: The following watersheds in San Mateo, Santa Clara, and/or Santa Cruz counties, California: Oyster Point (4112), Coyote Point (4167), Steinberger Slough (4234), Corte Madera Creek (4375), Peters Creek (4489), Slate Creek (4524), Waterman Creek (4544), East Waddell Creek (4603), Scott Creek (4669), Big Creek (4682), Waddell Creek (4613), Green Oaks Creek (4670), Cascade Creek (4635), Gazos Creek (4596), Arroyo de los Frijoles (4566), Little Butano Creek (4552), Bradley Creek (4512), Pompanio Creek (4488), Clear Creek (4436), Dry Creek (4377), Lobitos Creek (4374), Purisima Creek (4336), Pilarcitos Creek (4282), Denniston Creek (4250), San Pedro Creek (4197), San Andreas Lake (4190), Little Creek (4743), Butano Creek (4561), Honsinger Creek (4517), Teawater Creek (4506), Mindego Creek (4476), El Corte de Madera Creek (4380), La Honda Creek (4408), Harrington Creek (4420), Pilarcitos Lake (4232), Mills Creek (4328), West Union Creek (4347), Bear Gulch Reservoir (4291), Lower Crystal Springs Reservoir (4212), Upper Crystal Springs Reservoir (4290), Polhemus Creek (4236), and Millbrae (4189).

Note: Map follows:

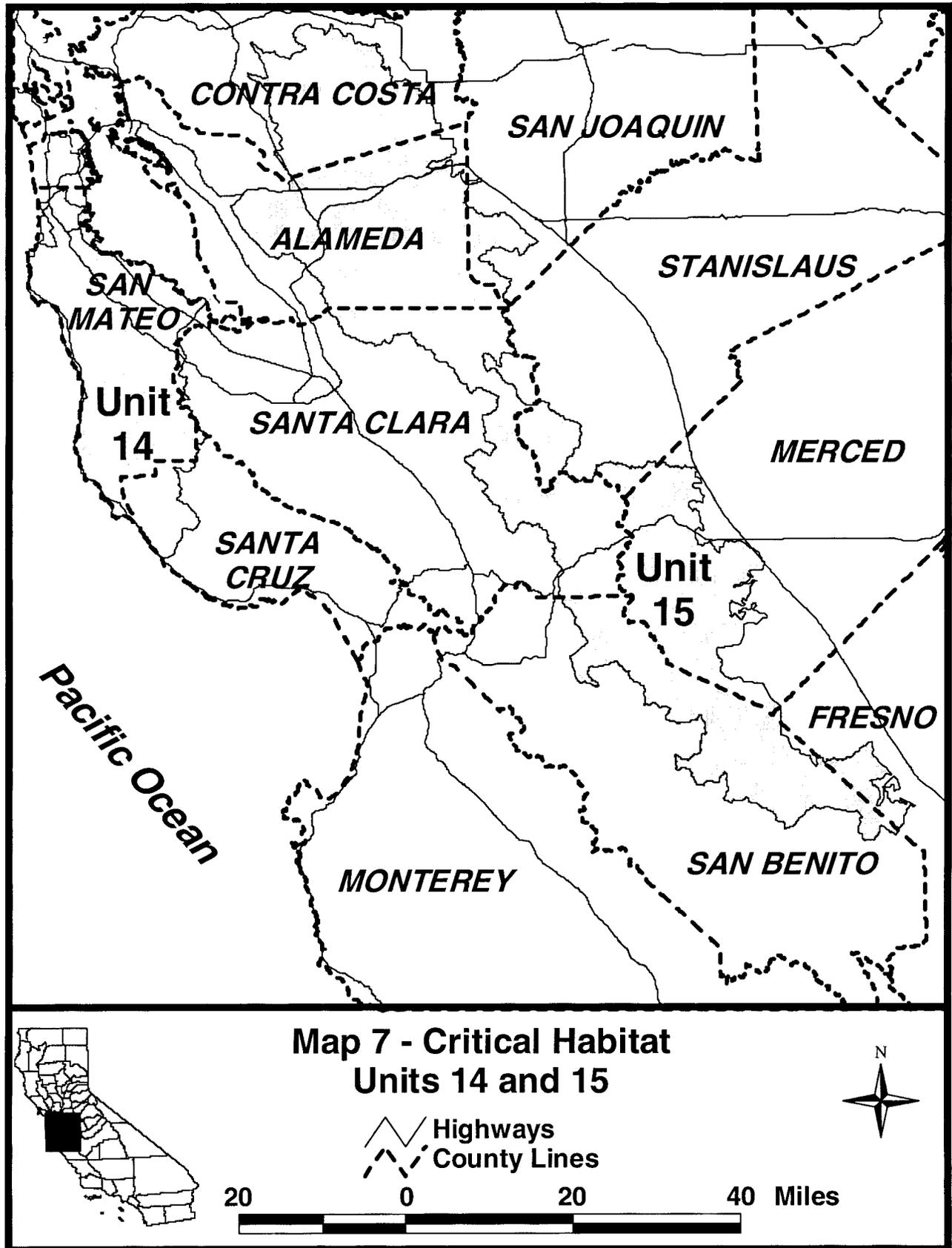
Map Unit 15: All or portions of the following watersheds in Contra Costa, Alameda, San Joaquin, Santa Clara, Stanislaus, San Benito, Merced, and/or Fresno counties, California: Kirker Creek (3818), Markley Canyon (3816), Sand Creek (3856), Deer Creek (3883), Lower Kellogg Creek (3929), Altamont Speedway (3926), Brushy Creek (3968), Bethany Reservoir (4007), Mountain House Creek (4070), Patterson Run (4083), Carnegie (4136), Lower Elk Ravine (4154), Deep Gulch (4153), Mitchell Ravine (4168), Upper Corral Hollow Creek (4209), Upper Arroyo Mocho (4280), Colorado Creek (4320), Sweetwater Creek (4361), Pino Creek

(4360), Jumpoff Creek (4426), Robinson Creek (4485), Lion Canyon (4516), Coon Creek (4626), Pine Springs Canyon (4627), Upper Quinto Creek (4608), Middle Quinto Creek (4607), Tule Lake (4655), Romero Overlook (4694), San Luis Reservoir (4704), San Luis Reservoir (4776), Arroyo Padre Flat (4840), Carusalito Creek (4884), Herrero Canyon (4905), Ruby Canyon (4952), Orogne Canyon (4983), Ojeda Canyon (5015), Mine Creek (5029) Merdey Creek (5053), Vasquez Creek (5106), E. of Glaucothane Ridge (5118), North of Indian Valley (5152), Capita Canyon (5128), Right Angle Canyon (5161), North Tumey Hills (5197), Upper Silver Creek (5218), South Tumey Hills (5180), Panoche Valley (5149), Clough Canyon (5200), Lower Bitterwater Canyon (5196), Panoche Creek (5136), Antelope Creek (5123), Las Aguilas Valley (5071), Upper Los Muertos Creek (5069), Canada Verde (5012), Lower Quien Sabe Creek (4977), Middle Quien Sabe Creek (4972), Santa Ana School (4954), Lone Tree Oak (4921), Sulfur Creek (4849), Elephant Head Creek (4790), Cedar Creek (4705), Middle Coyote Creek (4698), Rough Gulch (4647), Middle Fork Coyote Creek (4584), East Fork Coyote River (4560), Long Canyon (4479), Arroyo Bayo (4393), Valpe Creek (4287), Baby Peak (4300), Lower Arroyo Hondo (4321), Calaveras Creek (4346), Calaveras Reservoir (4295), Leyden Creek (4258), Sheridan Creek (4211), Stonebrook Canyon (4152), Oakland [north of Hwy 84] (3984), San Lorenzo Creek [east of Mission Blvd. To intersection with B Street; east and south of B Street] (4077), Crow Creek [south of B Street to intersection with I-580; south of I-580] (4017), Palomares Creek [south of I-580] (4082), Gold Creek [south of I-580] (4104), Livermore [north of I-580 to intersection with I-680; west of I-680 to intersection with Sunol Blvd; south and east of Sunol Blvd to intersection with 1st Street;

south of 1st Street to intersection with Stanley Blvd; south of Stanley Blvd to intersection with Hwy 84; south of Hwy 84 to intersection with I-580] (4051), Sycamore Creek (3951), Little Pine Creek (3855), Donner Creek (3865), Glaucothane Ridge (5126), Los Aquilas Canyon (5127), Hartman Creek (4586), Red Creek (4505), Hidden Creek (4775), Willow Spring (4791), Spicer Creek (4796), O'Connells Spring (4702), Cottonwood Creek (4686), La Baig Spring (4764), Williams Canyon (4638), Cleveland Ranch (5019), Rincon Creek (4918), Lookout Mountain (4922), North Side Mustang Ridge (4856), Twin Peaks (4870), Middle Los Banos Creek (4811), Lower Los Banos Creek (4847), Upper Kellogg Creek (3974), Curry Canyon (3928), Sycamore Creek (3916), Briones Valley (3896), Pacheco Creek (4759), Chimney Canyon (4656), Mississippi Creek (4577), Pacheco Lake (4725), Hawkins Lake (4857), Pacheco Pass (4740), South Fork Pacheco Creek (4793), Upper Quien Sabe Creek (4925), Slacks Valley (5080), Kelly Cabin Canyon (4639), Long Canyon (4479), Patterson Pass (4094), Brushy Peak (4045), Altamont Creek (4052), Arroyo Seco (4128), Tunnel Creek (4204), Lower Arroyo Mocho (4159), Coffee Mill Creek (4281), Lake Del Valle (4182), Lang Canyon (4229), Trout Creek (4272), Dry Creek (4151), Sycamore Creek (4314), Indian Creek (4219), San Antonio Reservoir (4186), Whitlock Creek (4268), La Costa Creek (4226), Cottonwood Creek (4056), Daugherty Hills (4067), Alamo West Branch (3980), Coyote Creek (4030), Sinbad Creek (4138), Vallecitos Creek (4162), Vern (4145), Cayetano Creek (4022), Long Canyon (3898), Upper Tassajara Creek (3966), and Lower Tassajara Creek (4013).

Note: Map follows:

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Map Unit 16: Portions of the following watersheds in Santa Clara and/or San Benito counties, California: Santa Clara Valley [south and east of and including the Pajaro River; from intersection of Hwy 156 and Union Road, north and west of Hwy 156; from intersection of Hwy 156 with Los Viboras Road, north of Los Viboras Road] (4661) and Flint Hills [south and east of and including the Pajaro River] (4909).

Note: Map follows:

Map Unit 17: All or portions of the following watersheds in Santa Cruz, Monterey, and/or San Benito counties, California: West Branch Soquel (4680), Soquel Creek (4722), Aptos Creek (4762), Valencia Creek (4799), Corralitos Lagoon (4828), Mouth of Pajaro River

(4852), Soda Lake (4914), Sargent Creek [south of and including the Pajaro River] (4912), Pinocate Creek (4951), Vierra Canyon (5001), Espinosa Lake [west of Hwy 101] (5060), Neponset [north and west of Hwy 68 to intersection with Hwy 101; north and west of Hwy 101] (5038), Elkhorn Slough (4968), Bates Creek (4770), Hinckley Creek (4757), Moro Cojo Slough (5032), Corncob Canyon (4958), Strawberry Canyon (4985), Vierra Canyon (5001), Paradise Canyon (5018), Moro Cojo Slough (5039), Vierra Canyon (4949), and Oak Hills (5031).

Note: Map follows:

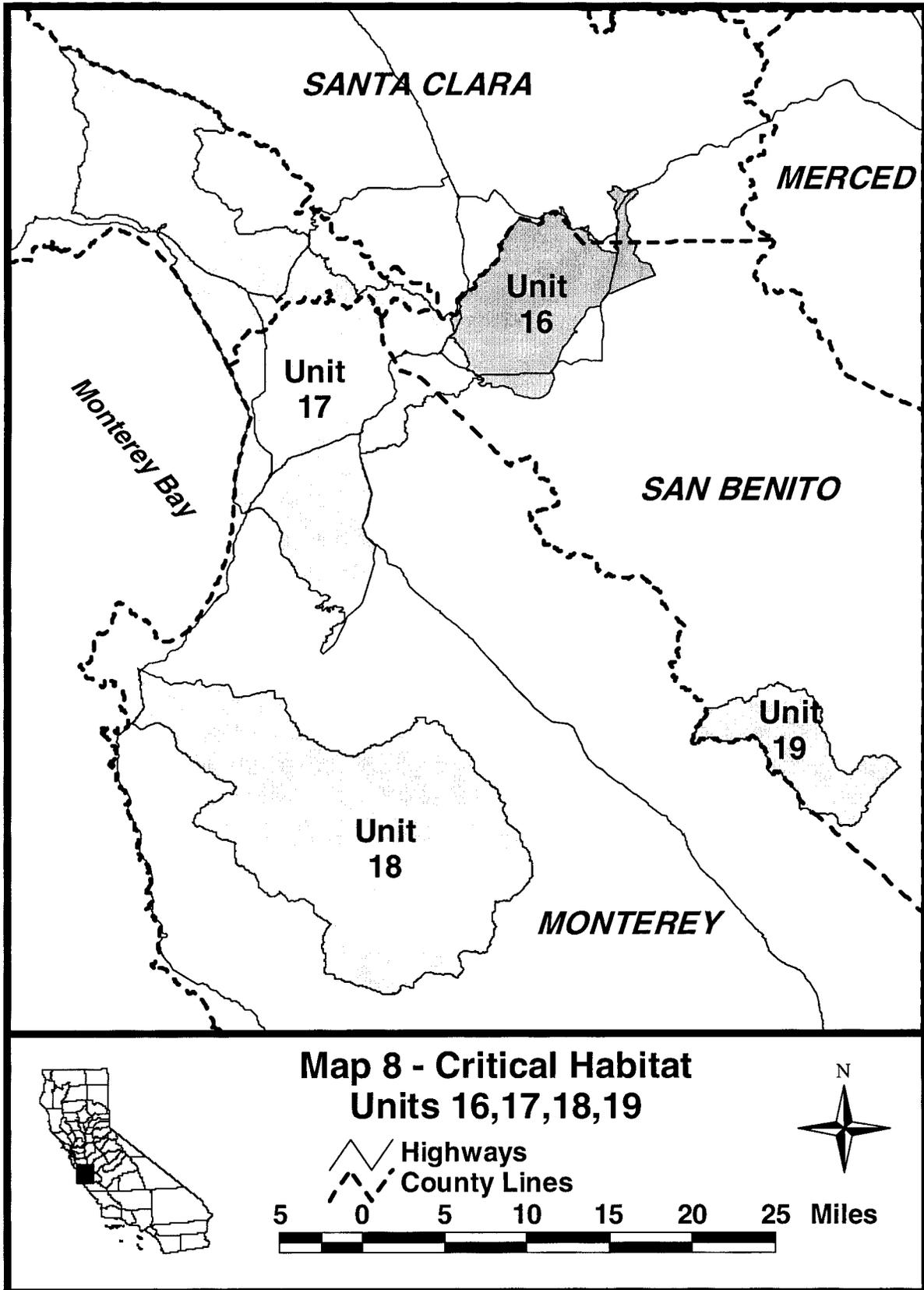
Map Unit 18: All or portions of the following watersheds in Monterey County, California: Carmel Bay [east of Hwy 1] (5232), Carmel Valley (5243),

Hitchcock Canyon (5297), Klondike Canyon (5307), Chupines Creek (5272), Rana Creek (5291), Upper Tularcitos Creek (5329), Bear Canyon (5363), Upper Finch Creek (5410), Miller Canyon (5424), Blue Creek (5459), Bruce Fork (5430), Danish Creek (5385), Pine Creek (5367), Black Rock Creek (5353), Las Garras Creek (5309), Robinson Canyon (5287), Lower Finch Creek (5368), Cachagua Creek (5375), and Lower Tularcitos Creek (5325).

Note: Map follows:

Map Unit 19: The following watersheds in San Benito and Monterey counties, California: Gloria Lake (5247) and George Hansen Canyon (5308).

Note: Map follows:



Map Unit 20: The following watersheds in Monterey, San Luis Obispo, and/or Kern counties, California: Upper Little Chalome Creek (5706), Lower Little Chalome Creek (5724), Oak Grove Canyon (5775), Cottonwood Creek (5782), Red Rock Canyon (5841), Blue Point (5877), Jack Canyon (5906), Woods Canyon (5940), Francisco Creek (5955), Raven Pass (5974), Packwood Creek (5982), Wilinon Canyon (6022), Holland Canyon (6001), Hughes Canyon (5988), West of Red Hills (6003), Gillis Canyon (5970), Tucker Canyon (5950), Wood Canyon (5929), Indian Creek (5927), Mile 9 to 11 Estrella River (5914), Estrella (5876), Lower Ranchito Canyon (5854), Lower San Jacinto Creek (5869), Upper San Jacinto Creek (5777), Headwaters Chalome Creek (5716), East of Palo Prieto Canyon (5921), Cholame Valley (5821), West Side Cholame Valley (5830), Palo Prieto Canyon (5886), South of Table Mtn. (5758), Lang Canyon (5757), Todds Spring Canyon

(5756), Durham Ranch (5788), West of Ranchito Canyon (5807), Upper Keyes Canyon (5806), Upper Hog Canyon (5797), Lower Hog Canyon (5847), Lower Keyes Canyon (5878), Upper Ranchito Canyon (5789), Bud Canyon (5888), Hopper Canyon (5919), Lower Shimmin Canyon (5911), Taylor Canyon (5865), Pine Canyon (5839), Upper Shimmin Canyon (5864), Willow Springs Canyon (5836), Sheep Camp Canyon (5899), Salt Canyon (6002), Freeman Canyon (5883), and Choice Valley (5964).

Note: Map follows:

Map Unit 21: The following watersheds in San Luis Obispo County, California: Burnett Creek (5891), Upper Arroyo de la Cruz (5938), Pico Creek (5959), Upper San Simeon Creek (5968), Steiner Creek (5998), Upper Santa Rosa Creek (6018), Villa (6061), Cottontail Creek (6080), Old Creek (6098), Toro (6111), Morro (6123), Morro Bay (6159), San Luisito Creek (6170), Choro

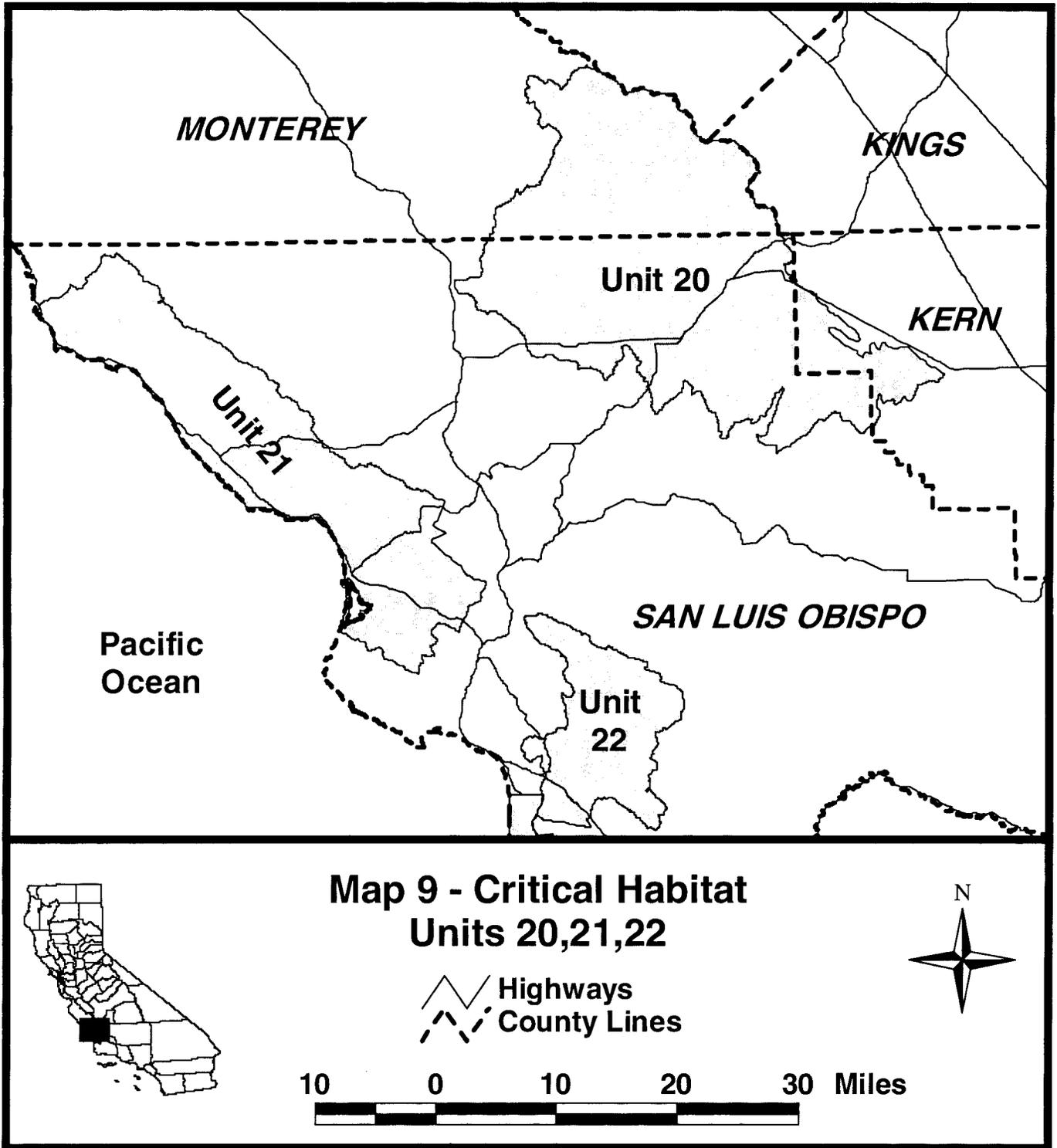
Reservoir (6185), Warden Lake (6214), Los Osos Creek (6221), Mouth of Los Osos Creek (6194), Whale Rock Reservoir (6124), Cayucos (6086), upper Green Valley Creek (6046), Lower Green Valley Creek (6049), Lower Santa Rosa Creek (6030), Lower San Simeon Creek (5993), Broken Bridge Creek (5956), Oak Knoll Creek (5952), Arroyo Del Corral (5947), Lower Arroyo de la Cruz (5926), and Middle Arroyo de la Cruz (5922).

Note: Map follows:

Map Unit 22: The following watersheds in San Luis Obispo County, California: Big Falls Canyon (6222), Wittenberg Creek (6253), Arroyo Grande Creek (6266), Tarspring Creek (6306), Los Berros Canyon (6327), Los Berros Creek (6330), Carpenter Canyon (6301), Clapboard Canyon (6278), Guaya Canyon (6277), and Vasquez Creek (6260).

Note: Map follows:

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Map Unit 23: All or portions of the following watersheds in San Luis Obispo and/or Santa Barbara counties, California: Cienega Valley [south of Grand Ave. towards intersection with Hwy 1; south of Hwy 1] (6317), Nipomo Mesa [west of Hwy 1] (6357), Santa Maria Valley [west and south of Hwy 1] (6379), Graciosa Canyon [west and south of Hwy 1] (6457), Harris Canyon [west of Hwy 1] (6481), Barka Slough (6492), Purisima Point (6484), Lions Head (6451), Casmalia Canyon (6456), Corralitos Canyon (6437), and Mussel Rock (6436).

Note: Map follows:

Map Unit 24: All or portions of the following watersheds in Santa Barbara County, California: Oak Canyon (6538), Thompson Park (6567), Cebada Canyon [south of Hwy 246] (6545), Santa Rita Valley [south of Hwy 246] (6551), Santa Rosa Creek [south of Hwy 246] (6548), Canada de los Palos Blancos [south of Hwy 246] (6557), Canada de la Laguna [south of Hwy 246] (6558), Ballard Canyon [south of Hwy 246] (6561), Santa Ynez Valley [south of Hwy 246 and south and west of Hwy 154] (6568),

San Lucas Creek (6593), S.E. of Happy Canyon (6573), Lower Cachuma Creek (6570), Lower Santa Cruz Creek (6563), Boat Canyon (6580), Redrock Canyon (6585), Oso Canyon (6587), Buckhorn Creek (6569), Lower Mono Creek (6592), Lower Aqua Caliente Canyon (6611), Alder Creek (6619), Juncal Canyon (6617), Blue Canyon (6613), Camuesa Creek (6596), Devils Canyon (6616), Arroyo Burro (6605), Los Lauveles Canyon (6600), Tequepis Creek (6608), Hilton Canyon (6601), Quiota Creek (6604), Alisal Creek (6607), Nojoqui Creek (6594), Yridisis Creek (6609), Palos Colorados Creek (6599), Upper Salsipuedes Creek (6606), Lake Cachuma (6588), Johnson Canyon (6579), Lower Salsipuedes Creek (6581), Canada de la Vina (6574), San Miguelito Creek (6577), Sloans Canyon (6576), and Lompoc Canyon (6562).

Note: Map follows:

Map Unit 25: The following watersheds in Santa Barbara County, California: Suey Canyon (6394), Colson Canyon (6409), Bear Canyon (6397), Lower South Fork La Brea Creek (6422), Middle South Fork La Brea Creek

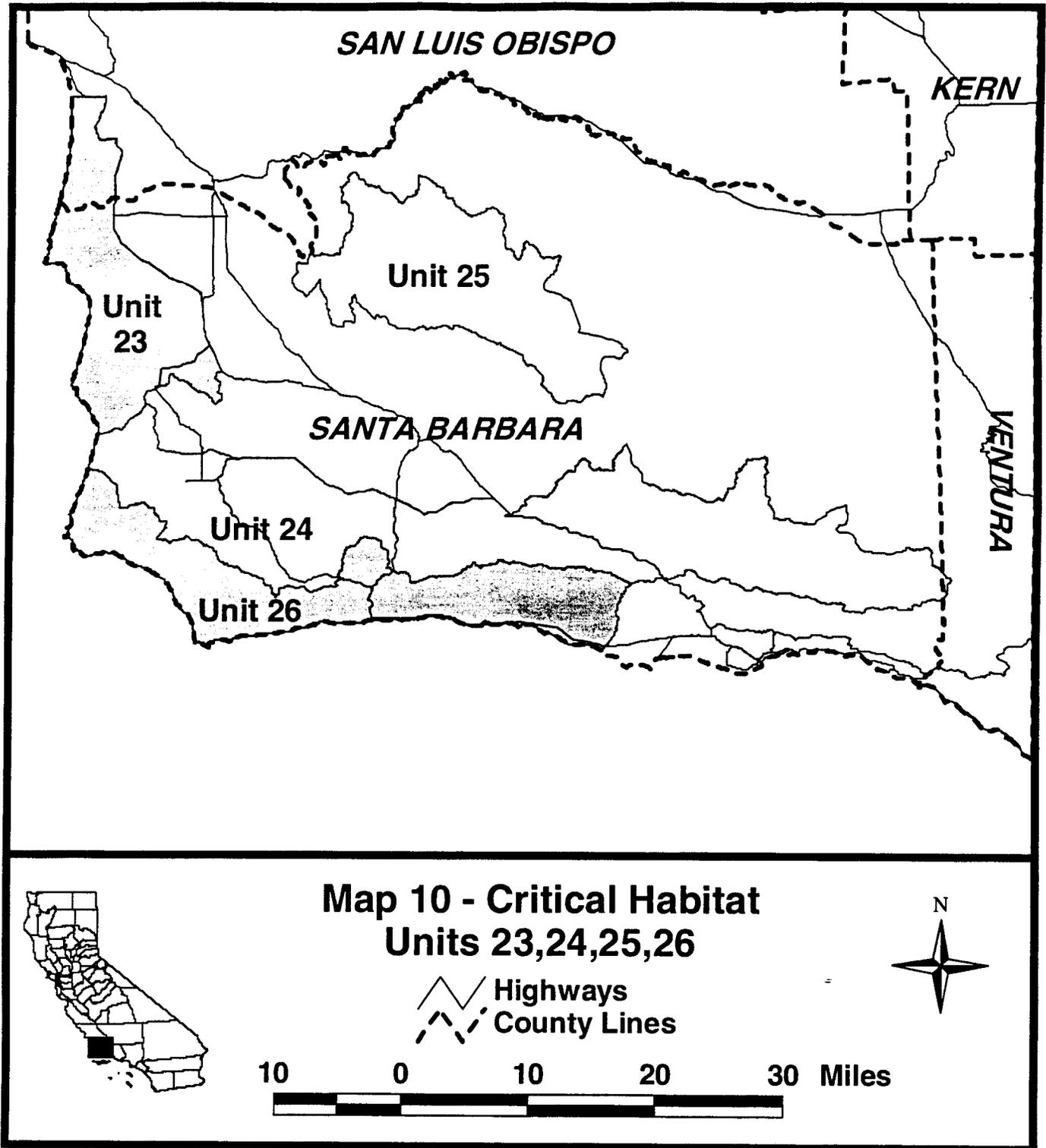
(6419), Tunnel Canyon (6452), Lower Horse Canyon (6440), Burro Canyon (6465), Lower Manzano Creek (6494), Middle Manzano Creek (6500), Fir Canyon (6514), Sulphur Creek (6487), Alkali Canyon (6446), Round Corral Canyon (6467), Kelly Canyon (6455), Rattlesnake Canyon (6428), Lower La Brea Creek (6433), Santa Maria Canyon (6439), and Tepusquet Creek (6432).

Note: Map follows:

Map Unit 26: The following watersheds in Santa Barbara County, California: Bear Creek (6575), La Honda Canyon (6590), Long Horn Canyon (6610), Gasper Creek (6614), Palo Alto Hill (6626), Arroyo El Bulito (6643), Canada de Alegria (6642), Canada de la Gavota (6618), Canada de las Cruces (6615), Arroyo Hondo (6637), Tajiguas Creek (6623), Canada del Corral (6625), Canada del Capitan (6627), Gato Canyon (6629), Dos Pueblos Canyon (6628), Ellwood Canyon (6633), Eagle Canyon (6641), Point Conception (6645), and Point Arguello (6595).

Note: Map follows: insert map 10.

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Map Unit 27: The following watersheds in Santa Barbara, Ventura, and/or Los Angeles counties, California: Upper Piru Creek (6502), Upper Sespe Creek (6565), North Fork Matilija Creek (6612), Lower Matilija Creek (6624), Middle Matilija Creek (6603), Upper North Fork Matilija Creek (6598), and Upper Matilija Creek (6586).

Note: Map follows:

Map Unit 28: All or portions of the following watersheds in Los Angeles County, California: Lancaster [south of Johnson Road to intersection with California Aqueduct; south and west of Aqueduct until intersection with Barrel

Springs Road; south of Barrel Springs Road to intersection with Hwy 14; and west of Hwy 14] (6372), Rock Creek [west of Hwy 14] (6547), Eastern [north and west of Hwy 14 to intersection with Soledad Canyon Road; north of Soledad Canyon Road to intersection with Valencia Blvd.; north of Valencia Blvd. to Hwy 126; North of Hwy 126 to intersection with I-5; east of I-5 to intersection with Ridge Route Road; east of Ridge Route Road to intersection with Lake Hughes Road; east of Lake Hughes Road to intersection with Elizabeth Lake Road; south along Elizabeth Lake Road to intersection with Johnson Road; south of Johnson Road to intersection

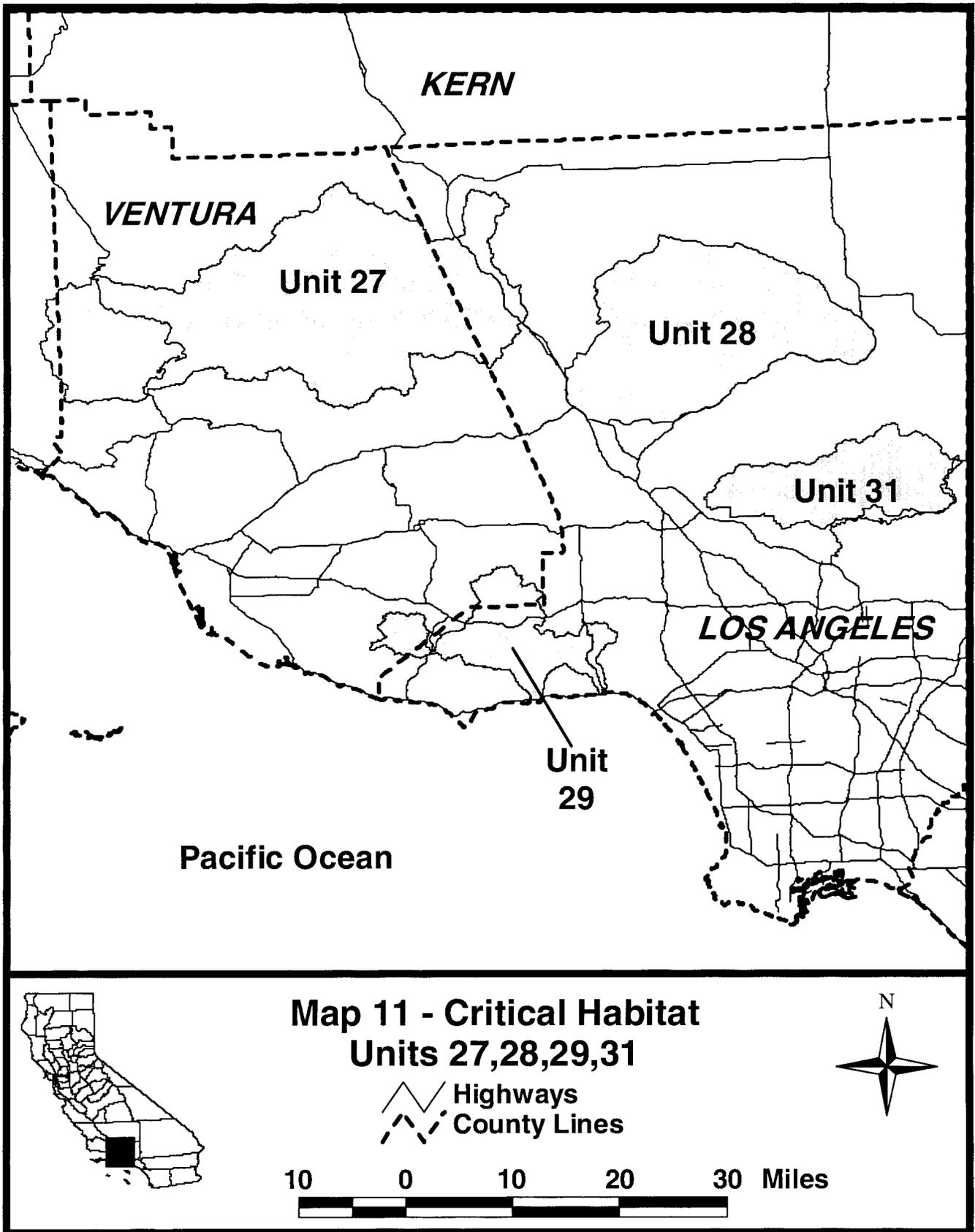
with the Lancaster watershed (6372)] (6520), Bouquet (6564), Mint Canyon (6582), Sierra Pelona (6583), and Acton [west and north of Hwy 14] (6589).

Note: Map follows:

Map Unit 29: The following watersheds in Los Angeles and/or Ventura counties, California: West La Virgenes Canyon (6711), East La Virgenes Canyon (6746), Monte Nido (6747), Topanga Canyon (6738), Triunfo Canyon (6744), Sherwood (6728), and Lindero Canyon (6716).

Note: Map follows: insert map 11

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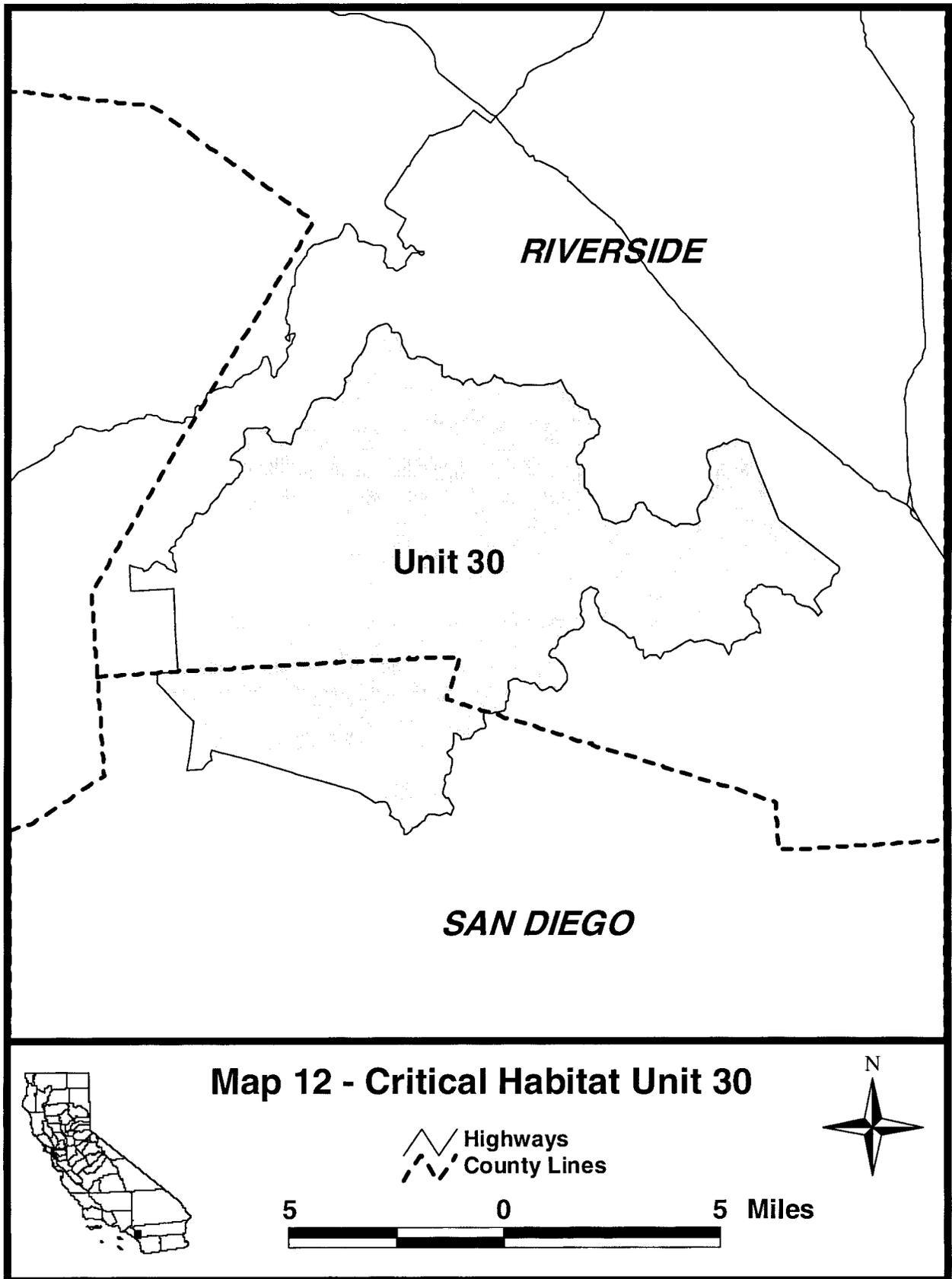
Map Unit 30: Portions of the following watersheds in Riverside and/or San Diego county, California: Deluz [within the boundaries of the Santa Rosa Plateau Ecological Reserve] (6870),

Murrieta [eastern boundary of the Santa Rosa (Morina) land grant, south to the southeastern boundary of the Santa Rosa Plateau Ecological Reserve] (6847), and San Mateo Canyon [east of and

including the western Cleveland National Forest boundary] (6852).

Note: Map follows: insert map 12.

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Map Unit 31: Portions of the following watershed in Los Angeles County, California: Tujunga [east of and

including the Angeles National Forest boundary] (6658). See Map 11 above.

Dated: August 31, 2000.

Stephen C. Saunders,
Assistant Secretary of Fish and Wildlife and Parks.

[FR Doc. 00-22860 Filed 9-8-00; 8:45 am]

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