anchored, and all shipping channels and sea lanes where any ESV associated with the network may operate while in motion or halted for some unspecified time, and where coordination between an ESV-equipped vessel operating in the 4/6 GHz frequency and terrestrial microwave services, may be required;

(J) Each licensee shall annually provide the Commission an updated list of all ports, harbors, shipping channels and sea lanes where any ESV associated with the network may operate;

(K) Where ESV coordination in the 4/6 GHz band is required:

(*1*) The initial lead application shall demonstrate that frequency coordination of each operational area (ports and sea lanes) has been completed prior to filing the application. The coordination must be conducted in accordance with §§ 25.130 and 25.203 of this section.

(*2*) Each licensee shall annually provide the Commission an updated list of all operational areas where coordinated operations are taking place as of the date of the report. The annual list shall also identify the satellites providing service to the network as of the date of the report.

(*3*) Each hub earth station application must indicate which satellite transponders (*i.e.* frequency range) it will use to provide service to ESVs. The amount of frequency bandwidth available to any ESV network operator is limited to a maximum of 36 megahertz of spectrum in each direction of transmission for each of two satellites per geographic location (*i.e.* port or harbor). The same 36 megahertz of uplink and 36 megahertz of downlink spectrum for each satellite may be accessed by all ESVs in the network. The 36 megahertz of uplink and 36 megahertz downlink of spectrum need not be the same at each satellite location.

7. Section 25.121(a) is revised to read as follows:

§ 25.121 License terms and renewals.

(a) *License Term.* Except for licenses for DBS facilities and non-coordinated ESV operations in the C-band, licenses for facilities governed by this part will be issued for a period of 15 years.

* * * * *

8. Section 25.134 is amended by adding new paragraphs (a)(3) and (a)(4) to read as follows:

§ 25.134 Licensing provisions of Very Small Aperture Terminal (VSAT), C-band Small Aperture Terminal (CSAT), and Satellite Earth Stations on Board Vessels (ESV) networks.

* * * * *

(a)(3) *ESV networks operating in the 12/14 GHz frequency band.* Applications for ESV networks in the Ku-bands that meet the requirements of § 25.134 (a)(1) of this section, that employ antennas that are 1.2 meters or larger in diameter, and have ESV antenna pointing accuracies of +/− 0.2 degrees or better will be routinely processed. The use of smaller antennas or non-consistent power levels will require the filing of an initial lead application (§ 25.115(c)(4) of this section) that includes all technical analyses required to demonstrate that unacceptable interference will not be caused to any affected adjacent satellite operators by the operation of the non-conforming earth station as described in § 25.134(b) of this section for VSATs. The licenses shall be issued for ESV operations within 125 km of the United States coastline. The hub earth station licensee shall be responsible for all ESV compliance in its network including foreign-flagged ships.

(a)(4) *ESV networks operating in the 4/6 GHz frequency band.* All ESV network applications or applications for hub earth station operations will be routinely processed provided the network employs antennas on board ships with a minimum of 300 gross tonnage that are 4.5 meters or larger in diameter, that are consistent with § 25.209 of this section, that the antennas would operate with power levels that are consistent with §§ 25.211(d) and 25.212(d) of this section, that the antennas would have pointing accuracies of +/ − 0.2 degrees or better, and where frequency coordination, if necessary, has been satisfactorily completed. The use of smaller antennas or other power levels requires the filing of an initial lead application (§ 25.115(c)(4) of this section) that includes all technical analyses required to demonstrate that unacceptable interference will not be caused to any all affected adjacent satellite operators by the operation of the non-conforming earth station. The hub earth station licensee shall be responsible for mitigating any interference arising from ESV operations with its network, regardless of the state of registry of the vessel. ESV licensees will specify that ESV operations shall not cause harmful interference to, claim interference protection from, or otherwise impose constraints on the operations or development of other radio services operating in this frequency band. The licenses shall be issued for ESV operations within 300 km of the United States coastline. For coordinated ESV operations, information about the identification and location of the vessel shall be retained for at least 90 days and be available within 72 hours upon request. Licenses for non-coordinated ESV operations shall be issued for a period of two years.

9. Section 25.202 is amended by adding a new paragraph (a)(8) to read as follows:

§ 25.202 Frequencies, frequency tolerance and emission limitations.

* * * * *

(a)(8) The following frequencies are available for use by ESVs:

3700–4200 MHz space-to-Earth
5925–6425 MHz Earth-to-space
11.7–12.2 GHz space-to-Earth
14.0–14.5 GHz Earth-to-space

10. Section 25.203 is amended by adding a new paragraph (l) to read as follows:

§ 25.203 Choice of sites and frequencies.

* * * * *

(l) Applications for coordination of 4/6 GHz band earth stations on board vessels. Prior to the filing of its application, the ESV hub earth station applicant must coordinate the proposed frequency usage of the ESVs within its network with existing terrestrial users and with applicants for terrestrial station authorizations and with previously filed applications in accordance with the coordination procedures set forth in Recommendations ITU–R SF.1649.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AT44

Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for the Santa Barbara County Distinct Population Segment of the California Tiger Salamander

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for the Santa Barbara County Distinct Vertebrate Population Segment (DPS) of the California tiger salamander (*Ambystoma californiense*) (referred to here as the California tiger salamander) pursuant to the Endangered Species Act of 1973, as

amended (Act). In total, approximately 13,920 acres (ac) (5,633 hectares (ha)) fall within the boundaries of the proposed critical habitat designation. The proposed critical habitat is located in Santa Barbara County, California.

Critical habitat identifies specific areas that are essential to the conservation of a listed species and, with respect to areas within the geographic range occupied by the species, areas that may require special management considerations or protection. The primary constituent elements for the California tiger salamander are aquatic and upland areas where suitable breeding and nonbreeding habitats are interspersed throughout the landscape, and are interconnected by continuous dispersal habitat. All areas proposed for designation as critical habitat for the California tiger salamander contain one or more of the primary constituent elements.

Section 4 of the Act requires us to consider economic and other relevant impacts of specifying any particular area as critical habitat. Section 7 of the Act prohibits destruction or adverse modification of critical habitat by any activity funded, authorized, or carried out by any Federal agency. We solicit data and comments from the public on all aspects of this proposal, including data on the economic and other impacts of designation. We may revise this proposal to incorporate or address new information received during the comment period.

DATES: We will accept comments from all interested parties until March 22, 2004. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by March 8, 2004.

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, U.S. Fish and Wildlife Service, Ventura Fish and Wildlife Office, 2493 Portola Road, Suite B, Ventura, California 93003.

2. You may hand-deliver written comments to our Ventura Office, at the address given above.

3. You may send comments by electronic mail (e-mail) to *fw1CTSCH@r1.fws.gov.* Please see the Public Comments Solicited section below for file format and other information about electronic filing.

Comments and materials received, as well as supporting documentation used in the preparation of this proposed rule, will be available for public inspection, by appointment, during normal business hours at the Ventura Fish and Wildlife Office, 2493 Portola Road, Suite B, Ventura, California (telephone 805–644–1766).

FOR FURTHER INFORMATION CONTACT: Field Supervisor, Ventura Fish and Wildlife Office, 2493 Portola Road, Suite B, Ventura, California, (telephone 805–644–1766; facsimile 805–644–3958).

SUPPLEMENTARY INFORMATION:

Public Comments Solicited

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

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

(2) Specific information on the amount and distribution of California tiger salamander habitat, and what habitat is essential to the conservation of the species and why;

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

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

(5) Whether our approach to designating critical habitat could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concerns and comments.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods (see **ADDRESSES** section). Please submit Internet comments to *fw1CTSCH@r1.fws.gov* in ASCII file format and avoid the use of special characters or any form of encryption. Please also include ''Attn: California tiger salamander'' in your e-mail subject header and your name and return address in the body of your message. If you do not receive a confirmation from the system that we have received your Internet message, contact us directly by calling our Ventura Fish and Wildlife Office at phone number 805–644–1766. Please note that the Internet address *fw1CTSCH@r1.fws.gov* will be closed out at the termination of the public comment period.

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 addresses from the rulemaking record, which we will honor to the extent allowable by law. There also may be circumstances in which 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 comment. 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. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

Designation of Critical Habitat Provides Little Additional Protection to Species

In 30 years of implementing the Act, the Service has found that the designation of statutory critical habitat provides little additional protection to most listed species, while consuming significant amounts of available conservation resources. The Service's present system for designating critical habitat has evolved since its original statutory prescription into a process that provides little real conservation benefit, is driven by litigation and the courts rather than biology, limits our ability to fully evaluate the science involved, consumes enormous agency resources, and imposes huge social and economic costs. The Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit to the species most in need of protection.

Role of Critical Habitat in Actual Practice of Administering and Implementing the Act

While attention to and protection of habitat is paramount to successful conservation actions, we have consistently found that, in most circumstances, the designation of critical habitat is of little additional value for most listed species, yet it

consumes large amounts of conservation resources. Sidle (1987) stated, ''Because the Act can protect species with and without critical habitat designation, critical habitat designation may be redundant to the other consultation requirements of section 7.'' Currently, only 306 species or 25 percent of the 1,211 listed species in the U.S. under the jurisdiction of the Service have designated critical habitat. We address the habitat needs of all 1,211 listed species through conservation mechanisms such as listing, section 7 consultations, the Section 4 recovery planning process, the Section 9 protective prohibitions of unauthorized take, Section 6 funding to the States, and the Section 10 incidental take permit process. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

Procedural and Resource Difficulties in Designating Critical Habitat

We have been inundated with lawsuits for our failure to designate critical habitat, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent (NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species, and final listing determinations on existing proposals are all significantly delayed.

The accelerated schedules of court ordered designations have left the Service with almost no ability to provide for adequate public participation or to ensure a defect-free rulemaking process before making decisions on listing and critical habitat proposals due to the risks associated with noncompliance with judicially-imposed deadlines. This in turn fosters a second round of litigation in which those who fear adverse impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless, is very expensive, and in the final analysis provides relatively little additional protection to listed species.

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with NEPA all are part of the cost of critical habitat designation. None of these costs result in any benefit to the species that is not already afforded by the protections of the Act enumerated earlier, and they directly reduce the funds available for direct and tangible conservation actions.

Background

The California tiger salamander was first described as a distinct species, *Ambystoma californiense*, by Gray in 1853 from specimens collected in Monterey (Grinnell and Camp 1917). Storer (1925) and Bishop (1943) likewise considered the California tiger salamander to be a distinct species. However, Dunn (1940), Gehlbach (1967), and Frost (1985) classified the California tiger salamander as a subspecies (*Ambystoma tigrinum californiense*) within the *A. tigrinum* complex. Based on recent morphological and genetic work, geographic isolation, and ecological differences among the members of the *A. tigrinum* complex, the California tiger salamander is currently considered to be a distinct species (Shaffer and Stanley 1991; Jones 1993; Shaffer and McKnight 1996; Irschick and Shaffer 1997) and was recognized as such in the November 21, 1991, Annual Notice of Review (56 FR 58804). The recent literature has uniformly accepted this position (Petranka 1998).

The California tiger salamander is a large terrestrial salamander with a broad, rounded snout. Adults may reach a total length of 8.2 in, with males generally averaging about 8 in and females averaging 6.8 in. The small eyes have black irises and protrude from the head. Coloration consists of white or pale yellow spots or bars on a black background on the back and sides and a yellowish belly. Males can be distinguished from females, especially during the breeding season, by their swollen cloacae (a common chamber into which the intestinal, urinary, and reproductive canals discharge), more developed tail fins, and larger overall size (Loredo and Van Vuren 1996).

California tiger salamanders are restricted to California, and their range does not overlap with any other species of tiger salamander (Stebbins 1985). Within California, the Santa Barbara County DPS is separated from the remainder of the range of the species by the Coast Ranges, particularly the La Panza and Sierra Madre Ranges, and the Carrizo Plain, which extends into the Temblor Range in eastern San Luis Obispo and western Kern Counties (Shaffer *et al.* 1993).

Santa Barbara County California tiger salamanders constitute a DPS with a potential range that is approximately 10 percent of Santa Barbara County's 2,738 square miles (mi^2). Historically, the range likely included what are now urbanized areas of the Cities of Santa Maria and Orcutt. Much of the species' habitat in Santa Barbara County has been lost or degraded by urban development and conversion of rangeland to intensive agriculture, including vineyards. Forty-six breeding ponds have been documented within the County.

The 46 known California tiger salamander breeding ponds appear to be distributed in 6 general areas, which we refer to as ''populations'' or ''subpopulations'': western Santa Maria/Orcutt, eastern Santa Maria, western Los Alamos/Careaga, eastern Los Alamos, the Purisima Hills, and the Santa Rita Valley. Because known ponds in different populations are separated from each other by a minimum of 2.49 miles (mi), which is approximately twice the maximum distance that California tiger salamanders have been observed to travel from a breeding pond, these areas are treated as separate, unconnected populations for the purposes of this critical habitat designation. However, some areas with potential breeding ponds that have never been surveyed for California tiger salamanders may link these areas, especially around the Purisima Hills and Santa Rita Valley populations.

Although California tiger salamanders spend most of their lives in upland habitats, their reproduction is tied to aquatic habitats. The salamanders breeding in and living around a pool or seasonal pond, or a local complex of pools or seasonal ponds, constitute a local population. Historically, California tiger salamanders bred primarily in natural vernal pools, but they also breed successfully in human-made stock ponds created for ranching and agricultural purposes.

Migrations to and from breeding ponds occur during the rainy season (November to May), with the greatest activity from December to February (Storer 1925; Loredo and Van Vuren 1996; Trenham *et al.* 2000). Breeding migrations are strongly associated with rainfall events. Breeding may occur in

one major bout or during a prolonged period of several months, depending on the rainfall pattern. During drought years, adults (particularly females) migrate in low numbers. Males consistently arrive at the breeding pond before females and stay approximately 40 days, which is 4 times longer than females stay (Loredo and Van Vuren 1996; Trenham *et al.* 2000).

Female California tiger salamanders mate and lay their eggs singly or in small groups, typically attached to vegetation near the edge of the breeding pond (Twitty 1941; Shaffer *et al.* 1993). After breeding, adults leave the pond and return to small mammal burrows within upland habitats (Loredo *et al.* 1996; Trenham 2001), although they may continue to come out nightly for approximately the next 2 weeks to feed (Shaffer *et al.* 1993).

California tiger salamander eggs require 2 to 4 weeks to hatch into larvae (Storer 1925). After 3 to 6 months of development, the larvae metamorphose (change into a different physical form) into terrestrial juveniles. Amphibian larvae must grow to a critical minimum body size before they can metamorphose (Wilbur and Collins 1973). The longer the ponding duration, the larger the larvae and metamorphosed juveniles are able to grow, and the more likely they are to survive and reproduce (Pechmann *et al.* 1989; Semlitsch *et al.* 1988; Morey 1998; Trenham 1998b). The larvae will perish if a site dries before metamorphosis is complete (Anderson 1968; Feaver 1971).

In the late spring or early summer, before the ponds dry completely, metamorphosed juveniles leave them and enter upland habitat. This emigration occurs in both wet and dry conditions (Loredo and Van Vuren 1996; Loredo *et al.* 1996). Unlike during their winter migration, the wet conditions that California tiger salamanders prefer do not generally occur during the months when their breeding ponds begin to dry. As a result, juveniles may be forced to leave their ponds on rainless nights. Under these conditions, they may move only short distances to find temporary upland sites for the dry summer months, waiting until the next winter's rains to move further into suitable upland refugia. Once juvenile California tiger salamanders leave their birth ponds for upland refugia, they typically do not return to ponds to breed for an average of 4 to 5 years. However, they remain active in the uplands, coming to the surface during rainfall events to disperse or forage (Trenham and Shaffer, unpublished manuscript).

Habitat Requirements and Characteristics

The California tiger salamander inhabits low-elevation (typically below 1,400 ft (ft)), vernal pools and seasonal ponds and the associated grassland, oak savannah, and coastal scrub plant communities of the Santa Maria, Los Alamos, and Santa Rita Valleys in northwestern Santa Barbara County (Shaffer *et al.* 1993; Service 2000).

The aquatic component of the California tiger salamander's habitat consists of temporary ponded freshwater habitats. Historically, the vernal pools constituted the majority of California tiger salamander breeding habitat. Vernal pools typically form in topographic depressions underlain by an impervious layer (such as claypan, hardpan, or volcanic strata) that prevents downward percolation of water. Vernal pool hydrology is characterized by ponding of water during the late fall, winter, and spring, followed by complete desiccation during the summer dry season (Holland and Jain 1998).

In Santa Barbara County, California tiger salamanders are found in three general types of natural vernal pools, including (1) dunal or deflational pools and ponds in sandy terraces; (2) isolated fold and fault sag ponds within ridges or valleys; and (3) fluvial ponds of varying origins in intermittent drainages within or along the margins of terraces.

In addition to vernal pools and seasonal ponds, California tiger salamanders also use small artificial water bodies such as stockponds for breeding (Stebbins 1985; Zeiner *et al.* 1988; Shaffer *et al.* 1993). However, stockponds often are poorer habitat for California tiger salamanders than natural vernal pools. Hydroperiods may be so short that larvae cannot metamorphose (*e.g.*, early drawdown of irrigation ponds), or so long that predatory fish and bullfrogs (*Rana catesbeiana*) can colonize the pond (Shaffer *et al.* 1993; Seymour and Westphal 1994). Permanent wetlands can support breeding California tiger salamanders if fish are not present, but extirpation of the salamander population is likely if fish are introduced (Shaffer *et al.* 1993; Seymour and Westphal 1994). Artificial ponds also require ongoing maintenance and are often temporary structures. Periodic maintenance to remove silt from stockponds or to reinforce or strengthen berms may also cause a temporary loss of habitat.

Regardless of pond type, breeding ponds need to be inundated (hold water) for a minimum of 12 weeks to allow for successful metamorphosis.

California tiger salamanders spend the majority of their lives in upland habitats. The upland component of California tiger salamander habitat typically consists of grassland savannah with scattered oak trees. However, in Santa Barbara County, some occupied California tiger salamander breeding ponds exist within mixed grassland and woodland habitats, and a few ponds are found in woodlands, scrub, or chaparral habitats.

Within these upland habitats, adult California tiger salamanders spend the greater part of their lives in the underground burrows of small mammals, especially the burrows of California ground squirrels (*Spermophilus beecheyi*) and valley pocket gophers (*Thommomys bottae*) (Barry and Shaffer 1994), at depths ranging from 7.9 in to 3.3 ft beneath the ground surface (Trenham 2001). These burrows provide food for California tiger salamanders, as well as protection from the sun and wind associated with the dry California climate that can cause dessication (drying out) of amphibian skin. Although California tiger salamanders are members of a family of ''burrowing'' salamanders, California tiger salamanders are not known to create their own burrows in the wild, likely due to the hardness of soils in the California ecosystems in which they are found. Put simply, California tiger salamanders require small mammal burrows for survival. Because they live underground in the burrows of mammals, they are rarely encountered even where abundant.

The burrows may be active or inactive, but because they collapse within 18 months if not maintained, an active population of burrowing mammals is necessary to sustain sufficient underground refugia for the species (Loredo *et al.* 1996). Adult California tiger salamanders are rarely found on the surface or under logs or other debris, but they will emerge from their burrows to move around and apparently forage (Trenham and Shaffer unpublished manuscript).

Little is known about what California tiger salamanders are doing while in burrows, as they are difficult to observe while underground. Although the upland burrows inhabited by California tiger salamanders have often been referred to as ''aestivation'' sites, which implies a state of inactivity, most evidence suggests that California tiger salamanders remain active in their underground dwellings. Trenham (2001) recorded underground movements within burrow systems, and other

researchers have observed active California tiger salamanders using fiberoptic or infrared scopes (Semonsen 1998; Michael van Hattem, Lawrence Livermore National Laboratory, pers. comm. 2003). Because California tiger salamanders arrive at breeding ponds in good condition and are heavier when entering a pond than when leaving, researchers have long inferred that the California tiger salamanders are feeding while underground. Recent direct observations have confirmed this (Trenham 2001; van Hattem, pers. comm. 2003). Thus, ''upland'' or ''nonbreeding'' habitat is a more accurate description of the terrestrial areas used by California tiger salamanders.

Dispersal and Migration

Movements made by California tiger salamanders can be grouped into two main categories: (1) Breeding migration; and (2) interpond dispersal. Breeding migration is the movement of salamanders to and from a pond from the surrounding upland habitat. After metamorphosis, juveniles move away from breeding ponds into the surrounding uplands, where they live continuously for several years (on average, 4 years). Upon reaching sexual maturity, most individuals return to their natal/birth pond to breed, while 20 percent disperse to other ponds (Trenham *et al.* 2001). Following breeding, adult California tiger salamanders return to upland habitats, where they may live for one or more years before breeding again (Trenham *et al.* 2000).

California tiger salamanders are known to travel large distances from breeding ponds into upland habitats. Maximum distances moved are generally difficult to establish for any species, but California tiger salamanders have been recorded to disperse 1.2 mi (2 kilometers (km)) from breeding ponds. California tiger salamanders are known to travel between breeding ponds; one study found that 20 to 25 percent of the individuals captured at one pond were recaptured later at ponds approximately 1,900 and 2,200 ft away (Trenham *et al.* 2001).

On the Stanford University campus, California tiger salamanders have moved up to 1 mi from their natal/breeding ponds. In Santa Barbara County, an adult California tiger salamander was found more than 1.2 mi from a breeding pond (S. Sweet, in litt. 1998). In addition to traveling long distances during migration to or dispersal from ponds, California tiger salamanders actually reside in burrows that are far from ponds. In Santa Barbara County, an adult California tiger salamander was seen in the mouth of a burrow 1,900 ft from the nearest known breeding pond in June, a month when California tiger salamander dispersal is unlikely (Rob Schoenholtz, biologist, LSA Associates, pers. comm. 2002). At one site in Contra Costa County, hundreds of California tiger salamanders have been captured three years in a row in upland habitat approximately 0.5 mi (2,640 ft) from the nearest breeding pond (Sue Orloff, biologist, IBIS Environmental, in litt. 2003).

Although the observations above show that California tiger salamanders can travel far, typically they stay closer to breeding ponds. Evidence suggests that juvenile California tiger salamanders disperse further into upland habitats than adult California tiger salamanders. A trapping study conducted in Solano County during winter 2002–03 found that juveniles used upland habitats further from breeding ponds than adults (Trenham and Shaffer, unpublished manuscript). More juvenile salamanders were captured at distances of 328, 656, and 1,312 ft (100, 200 and 400 meters (m), respectively) from a breeding pond than at 164 ft (50 m). Large numbers (approximately 20 percent of total captures) were found 1,312 ft (400 m) from a breeding pond. Fitting a distribution curve to the data revealed that 95 percent of juvenile salamanders could be found within 2,099 ft (640 m) of the pond, with the remaining 5 percent being found at even greater distances. Preliminary results from the 2003–04 trapping efforts detected juvenile California tiger salamanders at even further distances, with a large proportion of the total salamanders caught at 2,297 ft (700 m) from the breeding pond (Trenham *et al.*, unpublished data). Surprisingly, most juveniles captured, even those at 700 m, were still moving away from ponds (Ben Fitzpatrick, University of California at Davis, pers. comm. 2004). In Santa Barbara County, juvenile California tiger salamanders have been trapped approximately 1,200 ft (366 m) away while dispersing from their natal pond (Science Applications International Corporation (SAIC), unpublished data). These data show that many California tiger salamanders travel far while still in the juvenile stage.

Post-breeding movements away from breeding ponds by adults appear to be much smaller. During post-breeding emigration, radio-equipped adult California tiger salamanders were tracked to burrows 62 to 813 ft (19 to 248 m) from their breeding ponds (Trenham, 2001). These reduced movements may be due to adult California tiger salamanders having depleted physical reserves post-breeding, or also due to the drier weather conditions that can occur during the period when adults leave the ponds.

The spatial distribution of California tiger salamanders in the uplands surrounding breeding ponds is a key issue for conservation planning. Although it might be supposed that California tiger salamanders will move only short distances if abundant burrows are found near their ponds, this is not the case. In the aforementioned study in Solano County, while abundant burrows are available near the pond, a nearly equal number of California tiger salamanders were captured at 328, 656, and 1,312 ft (100, 200 and 400 m, respectively) from the breeding pond (Trenham and Shaffer, unpublished manuscript). Similarly, Trenham (2001) tracked salamanders to burrows up to 814 ft (248 m) from a breeding pond, although burrows were abundant at distances nearer to the pond. In addition, rather than staying in a single burrow, most individuals used several successive burrows at increasing distances from the pond.

Although the studies discussed above provide an approximation of the distances that California tiger salamanders regularly move from their breeding ponds, upland habitat features will drive the details of movements in a particular landscape. Unlike other ambystomatid salamanders, California tiger salamanders and other tiger salamanders are grassland animals, and do not favor forested areas as corridors for movement or long-term residence. Trenham (2001) found that radio-tracked adults favored grasslands with scattered large oaks, over more densely wooded areas. A drift-fence survey at a Santa Barbara County pond that is bordered by a strawberry field found that many emigrating juveniles moved towards the strawberry field; however, no adults were captured entering the pond from this direction. Most of the California tiger salamanders entered the pond from extensive, overgrazed grassy flats rather than sandhill or eucalyptus habitats in other quadrants (Steve Sykes, University of California at Santa Barbara, unpublished data 2003).

Based on radio-tracked adults, there is no indication that certain habitat types are favored as corridors for terrestrial movements (Trenham 2001). In addition, at two ponds completely encircled by drift fences and pitfall traps, captures of arriving adults and dispersing new metamorphs were

distributed roughly evenly around the ponds. Thus, it appears that dispersal into the terrestrial habitat occurs randomly with respect to direction and habitat types.

Most California tiger salamanders breed in the pond where they hatched and developed as larvae, and we refer to these aggregations at specific breeding ponds as populations. Because random events, such as disease or droughts, may occasionally extirpate local populations (*i.e.*, drive them to local extinction), maintaining interpond dispersal is important for the long-term viability of California tiger salamanders in an area. In Monterey County, Trenham *et al.* (2001) showed that a significant minority of California tiger salamanders dispersed to other ponds. In that study, more than 20 percent of both first-time and experienced breeders were recaptured breeding at ponds other than where they were last captured. Documented dispersers had moved up to 2,200 ft (670 m), and, based on a projected exponential relationship between dispersal probability and distance, less than 1 percent of dispersers are likely to move between ponds separated by 0.70 mi (1,158 m). The frequency of dispersal among subpopulations will ultimately depend on the distance between the ponds or complexes and also on the intervening habitat (*e.g.*, salamanders may move more quickly through grassland than through more densely vegetated scrublands).

Adults may migrate long distances between summering and breeding sites. The distance from breeding sites may depend on local topography and vegetation, the distribution of ground squirrel or other rodent burrows, and climatic conditions (Stebbins 1989; Hunt 1998). Observations of California tiger salamanders on the surface away from ponds (presumably migrating to or from the breeding pond, moving from one burrow to another, or in search of food) almost inevitably coincide with recent rainfall, suggesting that surface movement is limited to periods of precipitation.

For a sustainable breeding population to exist, we need to ensure that a sufficient fraction of the adult and juvenile salamanders hatched in a given pond survive their excursions into the surrounding uplands and return to breed again. Taylor and Scott (1997) determined that for sustainable populations of a demographically similar species, *Ambystoma opacum,* survivorship in the uplands should be at least 70 percent per year. Because in Monterey County natural annual mortality in an undeveloped landscape was roughly 30 percent (Trenham *et al.* 2000), we need to ensure that upland habitat modifications in Santa Barbara County do not appreciably increase mortality.

Previous Federal Actions

On September 18, 1985, we published the Vertebrate Notice of Review (NOR) (50 FR 37958), which included the California tiger salamander as a category 2 candidate species for possible future listing as threatened or endangered. Category 2 candidates were those taxa for which information contained in our files indicated that listing may be appropriate but for which additional data were needed to support a listing proposal. The January 6, 1989, and November 21, 1991, candidate NORs (54 FR 554 and 56 FR 58804, respectively) also included the California tiger salamander as a category 2 candidate, soliciting information on the status of the species.

On February 21, 1992, we received a petition from Dr. H. Bradley Shaffer of the University of California at Davis, to list the California tiger salamander as an endangered species. We published a 90-day petition finding on November 19, 1992 (57 FR 54545), concluding that the petition presented substantial information indicating that listing may be warranted. On April 18, 1994, we published a 12-month petition finding (59 FR 18353) that the listing of the California tiger salamander was warranted but precluded by higher priority listing actions. We elevated the species to category 1 status at that time, which was reflected in the November 15, 1994, Animal NOR (59 FR 58982). Category 1 candidates were those taxa for which we had on file sufficient information on biological vulnerability and threats to support preparation of listing proposals. On April 10, 1995, Pub. L. 104–6 imposed a moratorium on listings and critical habitat designations and rescinded $1.5 million funding from our listing program. The moratorium was lifted and listing funding was restored through passage of the Omnibus Budget Reconciliation Act on April 26, 1996. We discontinued the use of different categories of candidates in the NOR published February 28, 1996 (61 FR 7596), and defined ''candidate species'' as those meeting the definition of former category 1. We maintained the California tiger salamander as a candidate species in that NOR, as well as in subsequent NORs published on September 19, 1997 (62 FR 49398), October 25, 1999 (64 FR 57533), and October 30, 2001 (66 FR 54808).

On January 19, 2000, we published an emergency rule listing the Santa Barbara County DPS of the California tiger salamander as endangered (65 FR 3096) together with a proposed rule to list the DPS as endangered (65 FR 3110). On September 21, 2000, we listed the Santa Barbara County DPS as endangered (65 FR 57242). On May 23, 2003, we published a proposed rule (1) to list the Central California DPS of the California tiger salamander as a threatened species, (2) to downlist both the Santa Barbara County and the Sonoma County DPSs of the California tiger salamander from endangered to threatened status, and (3) to exempt existing routine ranching operations under Section 4(d) of the Act from the take prohibition of section 9 of the Act in the event we list the Central California DPS and reclassify either the Santa Barbara County or Sonoma County DPSs from endangered to threatened (68 FR 28648). We have not yet published final decisions on any of the proposals in this proposed rule.

On February 25, 2003, the Environmental Defense Center and Center for Biological Diversity filed a complaint challenging our failure to designate critical habitat for the Santa Barbara County DPS of the California tiger salamander (*Environmental Defense Center et al.* v. *U.S. Fish and Wildlife Service et al.*, EVCD 03–00195 (C.D.Cal)). By an order dated August 7, 2003, the district court ordered us to publish a proposed rule to designate critical habitat for the Santa Barbara DPS by January 15, 2004. This proposed rule complies with the court order.

Critical Habitat

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

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 requires consultation on Federal actions that are likely to

result in the destruction or adverse modification of critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as ''a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.'' Aside from the added protection that may be provided under section 7, the Act does not provide other forms of protection to lands designated as critical habitat. Because consultation under section 7 of the Act does not apply to activities on private or other non-Federal lands that do not involve a Federal nexus, critical habitat designation would not afford any additional protections under the Act against such activities.

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

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

Within the geographic area occupied by the species, we will designate only areas currently known to be essential. Essential areas should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information became available, or what areas may become essential over time. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation. Within the geographic area occupied by the species, we will not designate areas that do not now have the primary constituent elements, as defined at 50 CFR 424.12(b), that provide essential life cycle needs of the species. We have also excluded from this proposal some areas within the range of the species where California tiger salamanders are currently found, areas of suitable habitat where they might potentially occur, and some localities where they historically occurred. Only areas considered essential to the conservation of the species are included in this proposal.

Our regulations state that, ''The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species' (50 CFR 424.12(e)). Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species so require, we will not designate critical habitat in areas outside the geographic area occupied by the species.

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

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

Methods

In determining areas that are essential to conserve the California tiger salamander, we used the best scientific and commercial data available. We have reviewed the overall approach to the conservation of the California tiger salamander undertaken by local, State, and Federal agencies operating within the species' range since its listing in 2000, and recommended to us by the California tiger salamander recovery team.

We have also reviewed available information that pertains to the habitat requirements of this species. The material included data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits; research published in peer-reviewed articles and presented in academic theses and agency reports; and regional Geographic Information System (GIS) coverages.

Primary Constituent Elements

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

the historic geographical and ecological distributions of a species.

The areas proposed for designation as critical habitat for the California tiger salamander are designed to provide sufficient aquatic habitat for breeding and upland habitat as refugia for adults to maintain and sustain populations of California tiger salamanders throughout their range, and provide those habitat components essential for the conservation of the species. Due to the complex life history and dispersal capabilities of California tiger salamanders, and the dynamic nature of the environments in which they are found, the primary constituent elements described below should be found throughout the units that are being designated as critical habitat. Special management, such as habitat rehabilitation efforts (*e.g.*, removal of nonnative predators, control of introduced tiger salamanders, erosion and sediment control measures), may be necessary throughout the area being designated. Critical habitat for California tiger salamanders will provide for breeding and nonbreeding habitat and for dispersal between these habitats, as well as allowing for an increase in the size of California tiger salamander populations, which is essential to the conservation of the subspecies.

Critical habitat includes: essential aquatic habitat, essential upland nonbreeding season habitat with underground refugia, and dispersal habitat connecting occupied California tiger salamander locations to each other.

Based on our current knowledge of the life history and ecology of the species and the relationship of its essential life history functions to its habitat, as summarized above in the **Background** section, we have determined that the California tiger salamander requires the following primary constituent elements:

(1) Standing bodies of fresh water, including natural and man-made (*e.g.*, stock) ponds, vernal pools, and dune ponds, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a sufficient length of time (*i.e.*, 12 weeks) necessary for the species to complete the aquatic portion of its life cycle.

(2) Barrier-free uplands adjacent to breeding ponds that contain small mammal burrows, including but not limited to burrows created by the California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thommomys bottae*). Small mammals are essential in creating the underground habitat that adult California tiger salamanders depend upon for food, shelter, and protection from the elements and predation.

(3) Upland areas between breeding locations (PCE 1) and areas with small mammal burrows (PCE 2) that allow for dispersal among such sites.

We describe the relationship between each of these PCEs and the conservation of the salamander in more detail below.

The essential aquatic habitat described as the first PCE is essential for California tiger salamander breeding and for providing space, food, and cover necessary to sustain early life history stages of California tiger salamanders. Breeding habitat consists of fresh water bodies, including natural and man-made (*e.g.*, stock) ponds, vernal pools, and dune ponds. To be considered essential, aquatic habitats must have the potential to hold water for a minimum of 12 weeks in the winter or spring in a year of average rainfall because this is the amount of time needed for juveniles to complete metamorphosis and become capable of surviving in upland habitats. 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 essential because they constitute breeding habitat in years of average rainfall. Without its essential aquatic habitat, the California tiger salamander would not survive, as no breeding could occur.

Associated upland habitat containing underground refugia described as the second PCE is essential for the survival of adult California tiger salamanders and juveniles that have recently undergone metamorphosis. Adult and juvenile California tiger salamanders are terrestrial, and they enter aquatic habitats only for short periods of time to breed. For the majority of their life cycle, California tiger salamanders depend for survival on upland habitats containing underground refugia in the form of small mammal burrows. These underground refugia provide protection from the hot, dry weather typical of Santa Barbara County in the nonbreeding season. California tiger salamanders also find food in small mammal burrows and rely on the burrows for protection from predators. The presence of small burrowing mammal populations is essential for constructing and maintaining burrows.

The dispersal habitat described as the third PCE is essential for the conservation of the California tiger salamander. Protecting the ability of California tiger salamanders to move freely across the landscape in search of breeding ponds is essential in maintaining gene flow and for recolonization of sites that are temporarily extirpated. Lifetime reproductive success for California and other tiger salamanders is low. Trenham *et al.* (2000) found the average female bred 1.4 times and produced 8.5 young that survived to metamorphosis per reproductive effort. This resulted in roughly 11 metamorphic offspring over the lifetime of a female. In part, this low reproductive success is due to the extended time it takes for California tiger salamanders to reach sexual maturity: most do not breed until 4 or 5 years of age. While individuals may survive for more than 10 years, many breed only once. Combined with low survivorship of metamorphosed individuals (in some populations, less than 5 percent of marked juveniles survive to become breeding adults (Trenham *et al.* 2000)), reproductive output in most years is not sufficient to maintain populations. This trend suggests that the species requires occasional ''boom'' breeding events to prevent extirpation (temporary or permanent loss of the species from a particular habitat) or extinction (Trenham *et al.* 2000). With such low recruitment, isolated populations are susceptible to unusual, randomly occurring natural events as well as from human-caused factors that reduce breeding success and individual survival. Factors that repeatedly lower breeding success in isolated pools can quickly extirpate a population. Therefore, a critical element for successful conservation is the maintenance of sets of interconnected sites that are within the ''rescue'' distance of other ponds (Trenham *et al.* 2001).

Dispersal habitat described as the third PCE is also essential in preserving the California tiger salamander's population structure. The life history and ecology of the California tiger salamander make it likely that this species has a metapopulation structure (Hanski and Gilpin 1991). A metapopulation is a set of local populations or breeding sites within an area, where typically migration from one local population or breeding site to other areas containing suitable habitat is possible, but not routine. Movement between areas containing suitable habitat (*i.e.*, dispersal) is restricted due to inhospitable conditions around and between areas of suitable habitat. Because many of the areas of suitable habitat may be small and support small numbers of salamanders, local extinction of these small units may be common. A metapopulation's

persistence depends on the combined dynamics of these local extinctions and the subsequent recolonization of these areas through dispersal (Hanski and Gilpin 1991; Hanski 1994).

Essential dispersal habitat generally consists of upland areas adjacent to essential aquatic habitat that are not isolated from breeding ponds by barriers that California tiger salamanders cannot cross. Essential dispersal habitat provides connectivity among California tiger salamander breeding ponds. While California tiger salamanders can bypass many obstacles, and do not require a particular type of habitat for dispersal, the habitat connecting essential aquatic habitat must be free of barriers (*e.g.*, a physical or biological feature that prevents salamanders from dispersing beyond the feature). Examples of barriers are areas of steep topography devoid of soil or vegetation and State Highway 101. Agricultural lands such as row crops, orchards, vineyards, and pastures do not constitute barriers to the dispersal of California tiger salamanders. In general, we propose critical habitat that allows for dispersal between breeding locations within 0.70 mi (1,158 m) of each other; however, we decreased or increased this distance based on site-specific conditions within each unit.

In summary, the primary constituent elements consist of three components. At a minimum, this will include suitable breeding locations and associated uplands surrounding these water bodies that are connected by dispersal habitat that is free of barriers.

Criteria Used To Identify Critical Habitat

To identify areas that are essential to the conservation of the California tiger salamander in Santa Barbara County, we first looked at the potential range of the species, as was mapped in spring of 2000 by biologists who had conducted California tiger salamander surveys throughout Santa Barbara County. The boundaries of the potential range were developed based on topography, geology, and survey information. In some areas (*e.g.*, Vandenberg Air Force Base), seemingly appropriate habitat was excluded based on several years of negative survey results. Other areas (*e.g.*, the Solomon Hills) had slopes too steep to support ponding necessary for California tiger salamander breeding. Other areas of intact habitat adjacent to known ponds were included, and areas with extensive ponded wetland habitat (*e.g.*, Guadalupe Lakes) were also included.

We then focused on areas within the range where we had credible records (*e.g.*, museum voucher specimens, reports filed by biologists holding section 10(a)(1)(A) recovery permits) indicating California tiger salamander presence. The known locations of California tiger salamanders fall into six disparate areas of Santa Barbara County. Our conservation strategy for the DPS focuses on providing sufficient breeding and upland habitat to ensure high enough adult survival to maintain and sustain existing populations of California tiger salamanders in each of these six areas within the County. Each of the six areas has a unique combination of habitat types, breeding pond types, landscape features, surrounding land uses, and topography. Because so few extant populations exist, and the threats to these are substantial, we determined that these six areas were essential to the conservation of the species.

Conserving California tiger salamanders over the long term requires a three-pronged approach: (1) Protecting the hydrology and water quality of breeding pools and ponds; (2) retaining or providing for connectivity between breeding locations for genetic exchange and recolonization; and (3) protecting sufficient upland habitat around each breeding location to allow for high enough adult survival to maintain a breeding population over the long term. An explanation of how we determined the amount of upland habitat that is essential for the conservation of the California tiger salamander in each critical habitat unit is described in more detail below.

Once we identified the known breeding locations, we mapped the upland watershed of each pond based on aerial photographs taken in 2002 (AirPhotoUSA Inc. 2002) overlain with topographic relief lines. Protecting the watersheds of breeding ponds is essential for two reasons: (1) To ensure that the amount of water entering the pond is not altered too much (which can allow for colonization of breeding sites by bullfrogs and fish, which can prey upon California tiger salamander eggs and larvae); and (2) to preserve water quality by minimizing the entry of sediments and other contaminants to the breeding ponds. Therefore, our proposed critical habitat boundaries include the watersheds of all known breeding ponds.

We then identified the upland habitat surrounding the ponds where juvenile and adult California tiger salamanders live during the majority of their life cycle. To determine a general guideline for the amount of upland habitat necessary to support a population of adult California tiger salamanders, we reviewed the primary literature regarding California tiger salamander upland habitat use, including Trenham (2000), Trenham *et al.* (2000), and Trenham and Shaffer (unpublished manuscript). We also reviewed information from other biologists who have conducted upland habitat use studies but have not yet written up the results (*e.g.*, Sue Orloff, Steve Sykes, SAIC—*see* Background section).

Extensive data indicate that California tiger salamanders do not remain primarily in burrows close to breeding ponds, but instead move some distance out into the surrounding landscape. As described in the Background section, California tiger salamanders have been found up to 1.2 mi (2 kms) from breeding ponds. However, most California tiger salamanders are found closer to the ponds. Two studies conducted in Monterey and Solano Counties provide the best available data on upland movement distances. First, the mark-recapture study of Trenham *et al.* (2001) showed that California tiger salamanders commonly moved between ponds separated by 2,200 ft (670 m), suggesting that movements of this magnitude are not rare. Second, the ongoing study at Olcott Lake (Solano County) has directly documented the presence of high densities of juvenile and adult California tiger salamanders at upland locations at least 1,312 ft (400 m) from this breeding pond. Recent trapping efforts captured large numbers (representing 16 percent of total captures) of juvenile salamanders at 2,296 ft (700 m) (Trenham *et al.* unpublished data). Trenham and Shaffer (unpublished manuscript) determined that conserving upland habitats within 2,200 ft (670 m) of breeding ponds would protect 95 percent of California tiger salamanders at their study location in Solano County. Based upon this information, we focused on protecting upland areas within 2,200 ft of a known breeding pond. Protecting an upland habitat area with a radius of 2,200 ft around a single pond yields a minimum area of 350 ac, but depending on the size of the pond, can be more than that.

We used 2,200 ft or 350 ac as a guide for the amount of upland habitat around known breeding locations to be mapped as critical habitat for the purposes of preserving California tiger salamanders within small mammal burrows (PCE 2). However, although the studies discussed above provide an approximation of the distances that California tiger salamanders can move from their breeding ponds in search of suitable upland refugia, we recognize that upland habitat features will influence California tiger salamander

movements in a particular landscape. Therefore, where we had site-specific information on those features such as land use, topography, and geologic landform, we altered critical habitat lines to reflect that information. In some locations, we protected a shorter distance than 2,200 ft if: (1) Commercial or residential developed areas were present (*e.g.*, Santa Maria); (2) the upland habitat was separated from the breeding habitat by a substantial barrier (*e.g.*, State Highway 101); (3) the habitat type within that distance was unsuitable for California tiger salamanders (*e.g.*, hard chaparral); or (4) the area did not provide underground refugia because it could not support small mammal burrowing systems due to geological features such as fractured shales. We also excluded areas based on a combination of topography and geology. If soil and vegetative conditions are appropriate, California tiger salamanders can traverse areas of steep topography. Some steep areas do not support soils or vegetation that allow for California tiger salamanders to traverse. Therefore, we excluded areas that we know to be both steep and devoid of vegetation or burrowing mammal potential.

In some cases, we extended the boundary of critical habitat beyond 2,200 ft if (1) potential but unsurveyed breeding locations were present that would augment California tiger salamander populations; (2) no barriers to California tiger salamander dispersal were present and the habitat was suitable; (3) watershed boundaries for known breeding ponds exceed distances of 2,200 ft; or (4) the upland area between breeding ponds was conducive to California tiger salamander travel because dispersal between ponds within the units is essential for California tiger salamander gene flow.

We excluded most areas of frequently harvested agricultural lands from the boundaries of critical habitat areas. Agricultural lands were only included if they were directly adjacent to known breeding ponds, thereby substantially reducing upland refugia for California tiger salamanders breeding in that pond, or were important for connectivity between known breeding locations, or in the case of the two units within the Santa Maria Valley, so little California tiger salamander upland habitat is left that restoration is necessary to provide sufficient upland refugia to sustain a population of adult California tiger salamanders.

To determine the areas to be mapped within each unit for the purposes of dispersal (*i.e.*, PCE 3), we used a distance of 0.70 mi (1,158 m) as a general guide. The only known study we are aware of that specifically investigated movement of California tiger salamanders between breeding ponds projected that 0.70 mi (1,158 m) would encompass 99 percent of interpond dispersal (Trenham *et al.* 2000). However, we recognize that (as with movements in search of suitable underground refugia) upland habitat features influence California tiger salamander movements within a particular landscape. Thus, we altered critical habitat unit boundaries to reflect site specific knowledge where we had it. In some units, we protected a shorter dispersal distance than 0.70 mi (1,158 m) for similar reasons as described for PCE 2 (*e.g.*, barriers prevented movement, no ponds existed in a given direction).

In one unit (the eastern Santa Maria Unit) we propose to include a dispersal corridor that extends a greater distance than 0.70 mi (1,158 m) between breeding locations. Given the observations by S. Sweet (*in litt.* 1998), which detect an adult California tiger salamander 1.2 mi from the closest breeding location, and S. Orloff's (*in litt.* 2003) detections of hundreds of California tiger salamanders approximately 0.5 mi from the closest breeding location, we determined the longer corridor within this unit was justified because of the relatively flat, barrier-free terrain between the breeding locations. We determined that the connection between the two known breeding areas is essential for the conservation of the California tiger salamander in this area, because without it these locations would become isolated and much more susceptible to extirpation.

We are proposing to designate critical habitat on lands that are considered essential to the conservation of the California tiger salamander. These areas have the primary constituent elements described above.

All of the known locations for the California tiger salamander in Santa Barbara County occur on non-Federal and private lands. 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 requested incidental take. We often exclude non-Federal public lands and private lands that are covered by an existing operative HCP and executed implementation agreement (IA) under section 10(a)(1)(B) of the Act from designated critical habitat because the benefits of exclusion outweigh the benefits of inclusion as discussed in section 4(b)(2) of the Act. In the case of the California tiger salamander, no lands are covered by an existing operative HCP. We are aware of three HCPs under development; however, these draft HCPs are not proposed for exclusion because we have not yet made an initial determination that they meet our issuance criteria and are ready for public notice and comment.

When defining critical habitat boundaries, we made an effort to exclude all developed areas, such as towns, housing developments, and other lands unlikely to contain primary constituent elements essential for California tiger salamander conservation. However, our minimum mapping unit does not exclude all developed lands, such as lands supporting outbuildings, paddocks, roads, paved areas, lawns, and other lands unlikely to contain the primary constituent elements. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect the species and/or the primary constituent elements in adjacent critical habitat.

In summary, we propose six areas where populations of California tiger salamander are known to occur as critical habitat because we believe protection of those areas is essential to the conservation of the species. We then mapped as critical habitat sufficient habitat to ensure the conservation of the California tiger salamander.

Special Management Considerations

Management of the critical habitat areas in a manner that provides for the conservation of the California tiger salamander is essential. Areas in need of management include not only the immediate locations where the species may be present, but additional areas adjacent to these that can provide for normal population fluctuations that may occur in response to natural and unpredictable events. The California tiger salamander may be dependent upon habitat components beyond the immediate areas where individuals of the species occur, if these areas support the presence of small mammals or are important in maintaining ecological processes such as hydrology, expansion of distribution, recolonization, and maintenance of natural predator-prey relationships.

Our recommendations for special management that is needed for the critical habitat of the California tiger salamander are:

(1) Aquatic habitats should be free of non-native and introduced predators, such as bullfrogs and fish. We recommend that bullfrogs and fish within known or potential breeding ponds for the California tiger salamander should be removed. We recommend that human-made stockponds managed to prevent colonization by these predators.

(2) Disturbance to aquatic habitats should be minimized during the breeding season to minimize disturbance to the California tiger salamander's more sensitive life stages, and to reduce sedimentation and erosion into water bodies. Researchers and monitors should only enter ponds during the breeding season when the conservation benefits of obtaining scientific information outweigh the negative effects of disturbance.

(3) We recommend that stock pond maintenance occur after the breeding season.

(4) Aquatic habitats should be protected from contamination by chemicals such as those used for agricultural purposes. Operators should use best management practices to avoid contaminating wetlands. Ranchers should avoid placing salt licks for livestock adjacent to breeding ponds.

(5) Small mammal populations should be not be eliminated to provide California tiger salamanders with essential underground refugia used for foraging, protection from predators, and shelter from the elements.

(6) Upland habitats between breeding ponds should be managed to allow for successful California tiger salamander dispersal and to minimize impassable barriers. Sources of mortality such as roads should be designed to allow for safe California tiger salamander passage.

Proposed Critical Habitat Designation

We are proposing six units as critical habitat for the California tiger salamander. The critical habitat areas described below constitute our best assessment at this time of the areas essential for the conservation of the California tiger salamander. The six areas designated as critical habitat are: (1) Western Santa Maria/Orcutt; (2) eastern Santa Maria; (3) western Los Alamos/Careaga; (4) eastern Los Alamos; (5) Purisima Hills; and (6) Santa Rita.

The approximate area encompassed within each proposed critical habitat unit is shown in Table 1.

TABLE 1.—CRITICAL HABITAT UNITS PROPOSED FOR THE CALIFORNIA TIGER SALAMANDER

[Area estimates reflect all land within critical habitat unit boundaries, not just the areas supporting primary constituent elements.]

Critical habitat unit	Acres	Hectares
1. Western Santa Maria/Orcutt	4,349	1,760
2. Eastern Santa Maria	2,985	1,208
3. Western Los Alamos/Careaga	2,181	882
4. Eastern Los Alamos	1,302	527
5. Purisima	2,359	955
6. Santa Rita	744	301
Total	13,920	5,633

The majority of these acres occur on privately owned land. We know of no Federal, State, tribal, or military lands within these boundaries. A small portion of land within the western Santa Maria/Orcutt Unit is owned by local jurisdictions, including the County of Santa Barbara and the Laguna County Sanitation District.

Critical habitat includes California tiger salamander habitat throughout the species' range in Santa Barbara County, California. Brief descriptions of all units, and reasons why they are essential for the conservation of the California tiger salamander, are presented below. Each unit contains essential aquatic, upland, and dispersal habitat. Each unit is occupied by California tiger salamanders based upon observations recorded since 2000.

Unit 1: Western Santa Maria/Orcutt

Unit 1 consists of 4,349 ac (1,760 ha) west and southwest of the City of Santa Maria, mostly in unincorporated areas of the County and the community of Orcutt. This area encompasses the known California tiger salamander breeding sites extending from the Casmalia Hills on the south to the Santa Maria Airport on the north and from west of Black Road eastward to Highway 135. The unit contains 11 known California tiger salamander breeding ponds and several water bodies that could potentially support breeding California tiger salamanders but that have never been surveyed.

Seven of the known breeding ponds in this unit occur on the Orcutt Dune Sheet. The Orcutt Dune Sheet is an ancient windblown sand deposit that covers the southern one-half to two-thirds of the Santa Maria Valley (Hunt 1993). All natural California tiger salamander breeding sites occurring on the sheet are classified as dunal or deflation pools and ponds, a type of California tiger salamander breeding pond occurring only within the two units within the Santa Maria Valley. The four remaining known ponds occur along the base of the Casmalia Hills, just off the southwestern edge of the Orcutt Dune Sheet.

Based on an examination of aerial photographs taken in the late 1920's and late 1930's, the Orcutt Dune Sheet contained more potential breeding sites for California tiger salamanders than all other occupied habitat in Santa Barbara County combined. This area has suffered the greatest loss of potential California tiger salamander breeding and upland habitat. At least 500 vernal wetlands were present on the Orcutt Dune Sheet in 1938 aerial photographs, less than 150 were present in 2000. This number of ponds represents a 75 percent loss of these habitats (Larry Hunt, biological consultant, pers. comm. 2003).

Population growth and the concomitant residential and commercial development are the greatest threat to California tiger salamanders within this unit. The City of Santa Maria currently sustains a population of 82,148 people and is anticipated to reach a population of 110,800 people by 2020, with an annual growth rate of 1.8 percent (Santa Barbara County Association of Governments 2002). Annexations to further development are proposed in the remaining California tiger salamander habitat (Marc Bierdzinski, Santa Maria Community Development Department 2003).

Several development projects have been proposed within the Unit. The Santa Maria Airport District proposes to build a 400-ac (162-ha) research park and golf course just south of the airport on a parcel with three known California tiger salamander breeding ponds (Rincon 2002). The Orcutt Community Plan identifies Key Site 22 as a site for 60 percent buildout to a maximum of 3,000 units of dwellings (Santa Barbara County 2002). This site lies entirely within the critical habitat unit. Additional proposed development projects include Union Valley Parkway (City of Santa Maria 2003) and expansion of the Laguna County Sanitation District's wastewater treatment plan.

This unit is essential to the conservation of the California tiger salamander because it constitutes the largest number of occupied ponds on the Orcutt Dune Sheet, a rare and disappearing habitat type. California tiger salamanders in this location may be adapted to unique conditions not found in other units. It is critical for the

conservation of the species to conserve the California tiger salamander within the range of habitat types where it is found in nature. Protecting a variety of habitat conditions will increase the ability of the species to survive stochastic events.

This unit also requires special management to conserve California tiger salamanders. One pond is known to have introduced fish, another is subject to berm failure, and bullfrogs breed in close proximity to a third site. Addressing these threats through special management is essential for the conservation of the California tiger salamander.

Unit 2: Eastern Santa Maria

This unit covers a portion of the eastern half of the Orcutt Dune Sheet, but is separated from the western Santa Maria Valley unit by a broad area of urban and agricultural development, including State Highways 135 and 101. The unit is 2,985 ac (1,208 ha) in size and is bordered by State Highway 101 on the west, the Solomon Hills on the south, the Sisquoc River on the east, and the Santa Maria River floodplain on the north. Although this area is at least as large as the area encompassed by the western Santa Maria Valley populations, only four known ponds exist here. All the ponds have had substantial alterations to the surrounding upland habitats, and substantial fragmentation of the habitat between breeding ponds has occurred. Restoration of upland habitat and the creation of additional breeding ponds within this unit will be essential to allow a self-sustaining California tiger salamander population to persist. At least 10 additional ponds that appear suitable for California tiger salamander breeding exist within the unit.

California tiger salamander upland habitat in this area has experienced widespread losses due to the conversion of rangeland for agricultural purposes. Some proposed projects further threaten the remaining California tiger salamander habitat, including the 2000-ac Bradley Ranch proposed development project (John L. Wallace & Associates 2002), scattered low-density residential development, two soil remediation projects, and the construction of a radio tower.

All of the extant and most of the potential ponds lie on the Orcutt Dune Sheet at an average elevation of 530 ft above sea level (range = 390–601 ft above sea level). Because this unit represents one of only two units on the Orcutt Dune sheet, it is essential to the conservation of the species in that California tiger salamanders here are adapted to conditions not found in two-thirds of its range. The unit requires special management in the form of restoration, erosion control, and implementation of measures to minimize the number of California tiger salamanders killed on roads. The unit also represents an area that in large part is not slated for residential development, in contrast to the western Santa Maria area. Because of this and the fact that many of the converted upland habitats remain as open space, this unit has high restoration potential.

Unit 3: Western Los Alamos/Careaga

This unit consists of 2,181 ac (883 ha) to the west of Highway 101, bordered on the west by the Careaga Divide. This unit includes the location where the California tiger salamander was first discovered in Santa Barbara County in the 1960s. Nine ponds within this unit have been documented as breeding habitat by California tiger salamanders. Five of these ponds are natural ponds, three are human-made bermed agricultural/oil field impoundments, and one is a scour pool situated in a tributary to Canada de Las Flores Creek. Several other agricultural impoundments are located within dispersal distance of the California tiger salamander breeding ponds in the western Los Alamos valley. These human-made ponds may also be used by California tiger salamanders for breeding.

In contrast to the dunal or deflation ponds found in the two units to the north within the Santa Maria Valley, the natural breeding ponds within the Western Los Alamos/Careaga Unit are found in structural basin ponds. These ponds occur in the valleys or depressions along the axes of the synclines. The natural ponds within the unit occur along the axis of the Los Alamos Syncline and an unnamed syncline occurring parallel to and west of the Los Alamos Syncline.

The area in the southeastern half of the unit was proposed for conversion to vineyards. The landowner in this area supports California tiger salamander conservation and has been working with the lessee to develop a vineyard proposal that would conserve California tiger salamanders breeding in the known ponds.

This unit is essential to the conservation of the California tiger salamander because it contains some of the highest-quality natural California tiger salamander breeding pools remaining in the County. The Careaga Divide pond, located on the western side of the unit, is one of the most unique and pristine vernal ponds where California tiger salamanders breed. The wetland is unusual in that it is enclosed on two sides by an extensive and dense coast live oak woodland and on the north and east by coastal sage scrub and grasslands. The unit also provides large blocks of continuous unfragmented upland habitat with few known sources of mortality, all occurring within a working rangeland landscape. The unit requires special management in the form of fish removal from at least one pond and sediment control at three ponds.

Unit 4: Eastern Los Alamos

This unit consists of 1,302 ac (527 ha) on the Los Robles Ranch, which is located south of Highway 101 and southeast of the town of Los Alamos. The population is currently comprised of four ponds that have been used by California tiger salamanders for breeding. Two of the ponds are natural structural basin ponds found in depressions that are believed to be associated with the inferred location of the Los Alamos Syncline (Dibblee 1993). The other two ponds are bermed agricultural impoundments located in an unnamed, intermittent drainage located 1.0 to 1.5 mi southeast of the two natural ponds. Although there are three other unsurveyed human-made ponds in the immediate vicinity of the eastern Los Alamos population, only one is believed to have a hydrologic regime that could support breeding by California tiger salamanders. This bermed vineyard reservoir is located on the north side of the small hill that borders the northeast side of Los Robles Pond 1.

The property within the Unit was purchased in the 1990s for the purpose of vineyard development. California tiger salamanders were discovered on the property shortly after the listing in 2000 (Monk and Associates 2000). The property owner approached us about developing an HCP to cover vineyard installation in 2001; however, we have not received a permit application pursuant to section 10(a)(1)(B) for the site.

Given the small number of known breeding populations, this unit is essential for the conservation of the California tiger salamander because, in spite of its location adjacent to State Highway 101, the habitat within this unit is of high quality. In addition, the contiguous block of habitat within the unit is free of fragmentation and is of sufficient size to maintain a self-sustaining population of California tiger salamanders. Furthermore, the populations within this unit constitute the easternmost location of the species.

As with the Western Lost Alamos/Careaga Unit, the natural ponds on the site are structural basin ponds formed by compressional forces between the transverse and coastal ranges.

The unit requires special management in the form of maintenance of the two human-made breeding ponds, measures to reduce road mortality, and preservation of water quality.

Unit 5: Purisima Hills

Unit 5 consists of 2,359 ac (955 ha) along the crest and south slope of the west-central portion of the Purisima Hills. The unit encompasses 14 of the 16 documented breeding ponds in the subpopulation. The portion of the Purisima Hills that contains suitable habitat lies upon the lower Careaga Formation, bounded to the east-southeast by outcrops of Sisquoc Formation, and bounded to the west-northwest by badlands topography of sandier horizons within the upper Careaga Formation. Neither the Sisquoc nor the upper Careaga formations will retain water in unlined ponds. Pond elevations range from 500 to 1400 ft.

The documented breeding localities are all stock ponds, most of which were constructed in the mid to late 1950s (Thomas Silva, Sr., pers. comm. 2001); of these, only one may have been based on a preexisting natural depression. The unit also contains a large natural vernal lake referred to as Laguna Seca. Although Laguna Seca did not contain California tiger salamanders during surveys conducted in 2002, it was likely the natural source of California tiger salamanders for the human-made ponds in the Purisima Hills to the south and southwest of the pond. Largemouth bass (*Micropterus salmoides*) and mosquitofish (*Gambusia affinis*) were recorded during surveys in 2002 (Paul Collins, Santa Barbara Museum of Natural History, pers. comm. 2002). The introduced fish likely preclude successful breeding, although adult California tiger salamanders are inevitably present in the adjacent uplands, given the successful breeding occurring in the other known ponds in the vicinity. We have been working with the landowners in this area on a proposed fish removal project. Based on present knowledge of the distribution and history of occupied ponds, the pattern of California tiger salamander presence in the ponds within the Purisima Hills indicates a considerable role for dispersing animals, as all 16 localities have been colonized sometime in the past 40 to 50 years.

This unit is essential for the conservation of the California tiger salamander. Although the majority of occupied ponds are human made and thus require frequent maintenance, the unit is the most remote of all the units and has the fewest documented threats. Because of the steepness of the topography, conversion to farmland or high-intensity development is not feasible. The unit is unique in that it is steeper terrain and is more densely vegetated than all other units. This location contains the only known California tiger salamander breeding ponds completely surrounded by coastal sage chaparral vegetation. Of the 16 ponds, 4 are surrounded by grasslands, 3 are enclosed in chaparral, and the remainder have mixed grassland/chaparral habitats within a 328-ft (100-m) radius (2 of these 9 also have oak woodland components). Few other locations in Santa Barbara are within chaparral or mixed chaparral habitats. Therefore, California tiger salamanders within this unit are adapted to unique habitat conditions.

The Purisima Unit is also essential in that it provides a linkage between the Santa Rita Unit to the southwest and the Western Los Alamos/Careaga Unit to the north. Although many of the units may be permanently separated from each other by urban development and State Highway 101, these three units still likely retain some connectivity. Preliminary genetic analyses of five loci indicate high levels of gene exchange between the Purisima and Western Los Alamos units, despite a distance of almost 4 mi between these units (Wes Savage, University of California at Davis, unpublished data). Several stockponds which have never been surveyed lie between the units; some of these ponds are likely occupied by California tiger salamanders and provide genetic exchange between the two proposed critical habitat units. The Santa Rita Unit is a similar distance from the Purisima Unit, but appears to have slightly less genetic exchange than the other two units (W. Savage, unpublished data).

The unit also requires special management. Because the ponds are human-made stock ponds, they are subject to failure. Two potential locations have breached dams and do not hold water, two are silted up, and four dry out soon after rainfall events. Special management can restore these ponds and augment the California tiger salamander populations within the unit. Special management is also needed to remove introduced fish from Laguna Seca.

Unit 6: Santa Rita Valley

This 744-ac (301 ha) unit constitutes the southernmost locality for California tiger salamanders in Santa Barbara County. The unit is bisected by Highway 246, a heavily traveled thoroughfare between the towns of Buellton and Lompoc. Two confirmed breeding locations (representing three ponds) lie in the general Santa Rita Valley; however, one of these is a human-made pond isolated from other units and is not included within the boundaries of critical habitat. The other confirmed breeding locality consists of two hydrobasins within 50 ft of one another and adjacent to Highway 246. Adult California tiger salamanders were often found dead on roads after rain events during the 1980s. Three ponds on a neighboring property to the east and two ponds on the south side of Highway 246 likely formed a complex with this pond in the past; however, the ponds to the east were degraded by introduced fish and vineyards, while Highway 246 forms a substantial barrier to the southern ponds. The ponds south of Highway 246 have never been surveyed for California tiger salamanders. Although one landowner reported finding a California tiger salamander in a water pump in 2000, we have been unable to obtain permission to conduct surveys to confirm or refute this record.

The known ponds are based on natural features developed on an active syncline in the Careaga Formation east of the Santa Rita-Drum Canyon divide along the north side of California Highway 246. The ponds are natural but have been excavated so that the smaller pond appears to retain water year round.

This unit is essential to the conservation of the California tiger salamander because it constitutes the only extant population remaining within the Santa Rita valley. As stated previously, given the small number of remaining breeding locations, all six units are essential. In addition, due to the numbers of salamanders found dead on the roads in the 1980s, the ponds were likely productive in the past. Highway 246 constitutes the main threat to the breeding location; furthermore, Caltrans has proposed to widen this road, which would substantially infringe upon the footprint of the ponds. Even without widening, the mortality by vehicular traffic and contaminated runoff entering the pond provide substantial threats to the breeding site.

The unit requires special management. Based on past observations, mosquitofish (*Gambusia affinis*) and sunfish (*Lepomis* spp.) occurred in these ponds (Service 2000). We do not know if fish currently exist in the ponds (the ponds dry completely

in most years); however, if they do, they should be removed to conserve this population. In addition, bullfrogs have also been reported (Grace McLaughlin, Service, pers. obs. 2000) and should also be removed. The precarious position of the pond directly adjacent to a busy road requires measures to reduce the threat contaminants entering the pond and to enhance survival of California tiger salamanders attempting to cross the road. In addition, connectivity to potential breeding locations to the south of the highway should be facilitated in some manner. The California tiger salamander science subteam of the recovery team recommends restoring or creating additional ponds in this unit, due to the risk of extinction associated with having only one breeding location. Because California tiger salamander population dynamics involve several connecting breeding populations, increasing the number of breeding ponds in this unit is necessary to conserve the population.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as ''a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to: alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.'' However, in a March 15, 2001, decision of the United States Court of Appeals for the Fifth Circuit (*Sierra Club* v. *U.S. Fish and Wildlife Service et al.,* F.3d 434), the Court found our definition of destruction or adverse modification to be invalid. In response to this decision, we are reviewing the regulatory definition of adverse modification in relation to the conservation of the species. Individuals, organizations, States, local governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding.

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

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

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where critical habitat is subsequently designated and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat. Conference reports assist the agency in eliminating conflicts that may be caused by the proposed action, and may include recommendations on actions to eliminate conflicts with, or adverse modifications to, proposed critical habitat. 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)).

Activities on Federal lands that may affect the California tiger salamander or its critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from a Federal agency, such as a permit from the Army Corps under section 404 of the Clean Water Act, a section 10(a)(1)(B) permit from the Service, or some other Federal action, including funding (*e.g.*, Federal Highway Administration or Federal Emergency Management Agency funding), 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 and private lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat include those that appreciably reduce the value of critical habitat for both the survival and recovery of the California tiger salamander. Within critical habitat, this pertains only to those areas containing primary constituent elements. We note that such activities may also jeopardize the continued existence of the species.

To properly portray the effects of critical habitat designation, we must first compare the section 7 requirements for actions that may affect critical habitat with the requirements for actions that may affect a listed species.

Section 7 prohibits actions funded, authorized, or carried out by Federal agencies from jeopardizing the continued existence of a listed species or destroying or adversely modifying the listed species' critical habitat. Actions likely to ''jeopardize the continued existence'' of a species are those that would appreciably reduce the likelihood of the species' survival and recovery. Actions likely to ''destroy or adversely modify'' critical habitat are those that would appreciably reduce the value of critical habitat for the survival and recovery of the listed species.

Common to both definitions is an appreciable detrimental effect on both survival and recovery of a listed species. Given the similarity of these definitions, actions likely to destroy or adversely modify critical habitat would almost always result in jeopardy to the species concerned, particularly when the area of the proposed action is occupied by the species concerned. Designation of critical habitat in areas occupied by the California tiger salamander is not likely to result in a regulatory burden above that already in place due to the presence of the listed species.

Federal agencies already consult with us on activities in areas currently occupied by the species to ensure that their actions do not jeopardize the continued existence of the species. These actions include, but are not limited to:

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

(2) Regulation of water flows, damming, diversion, and channelization by any Federal agency;

(3) Road construction and maintenance, right-of-way designation, and regulation funded or permitted by the Federal Highway Administration;

(4) Voluntary conservation measures by private landowners funded by the Natural Resources Conservation Service;

(5) Regulation of airport improvement activities by the Federal Aviation Administration;

(6) Licensing of construction of communication sites by the Federal Communications Commission; and,

(7) Funding of activities by the U.S. Environmental Protection Agency, Department of Energy, Federal Emergency Management Agency, Federal Highway Administration, or any other Federal agency.

All lands proposed for designation as critical habitat are within the geographic area occupied by the species (based on observations made within the last 3 years), and are likely to be used by the California tiger salamander, whether for foraging, breeding, growth of larvae and juveniles, dispersal, migration, genetic exchange, or sheltering. Thus, we consider all critical habitat units to be occupied by the species. Federal agencies already consult with us on activities in areas currently occupied by the species or if the species may be affected by the action to ensure that their actions do not jeopardize the continued existence of the species. Therefore, we believe that the designation of critical habitat is not likely to result in a significant regulatory burden above that already in place due to the presence of the listed species. Few additional consultations are likely to be conducted due to the designation of critical habitat. Nevertheless, at any given time some portions of a unit may not be occupied by California tiger salamanders, due to climatic fluctuations, changes in population numbers, flood events, or other causes. Additional consultations could arise if a project is proposed within an unoccupied portion of a critical habitat unit and the primary constituent elements may be adversely affected by the project.

Application of Section 3(5)(A) and Exclusions Under Section 4(b)(2) of the Act

Section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographic area occupied by the species on which are found those physical and biological features (I) essential to the conservation of the species and (II) which may require special management considerations and protection. As such, for an area to be designated as critical habitat for a species, it must meet both provisions of the definition. In those cases where a specific area does not provide those physical and biological features essential to the conservation of the species, it has been our policy to not include the area in designated critical habitat. Likewise, if an area determined to be biologically essential has an adequate management plan that covers the species, then special management and protection are already being provided. These areas would not meet the second provision of the definition and would not be proposed as critical habitat.

We consider a current plan to provide adequate management or protection if it meets three criteria: (1) The plan is complete and provides a conservation benefit to the species (*i.e.*, the plan must maintain or provide for an increase in the species' population, or the enhancement or restoration of its habitat within the area covered by the plan); (2) the plan provides assurances that the conservation management strategies and actions will be implemented (*i.e.*, those responsible for implementing the plan are capable of accomplishing the objectives, and have an implementation schedule or adequate funding for implementing the management plan); and (3) the plan provides assurances that the conservation strategies and measures will be effective (*i.e.*, it identifies biological goals, has provisions for reporting progress, and is of a duration sufficient to implement the plan and achieve the plan's goals and objectives).

Further, section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. An area may be excluded from critical habitat if it is determined that the benefits of exclusion outweigh the benefits of specifying a particular area as critical habitat, unless the failure to designate such area as critical habitat will result in the extinction of the species. Consequently, we may exclude an area from critical habitat based on economic impacts, or other relevant impacts such as preservation of conservation partnerships or military readiness considerations, if we determine that the benefits of excluding an area from critical habitat outweigh the benefits of including the area in critical habitat, provided that exclusion will not result in the extinction of the species.

In summary, we use both the definitions in section 3(5)(A) and the provisions of section 4(b)(2) of the Act to evaluate those specific areas that are proposed for designation as critical habitat as well as for those areas that are subsequently finalized (*i.e.*, designated as critical habitat). On that basis, it has been our policy to not include in proposed critical habitat, or exclude from designated critical habitat, those areas: (1) Not biologically essential to the conservation of a species, (2) covered by an individual (project-specific) or regional Habitat Conservation Plan (HCP) that covers the subject species, (3) covered by a complete and approved Integrated Natural Resource Management Plan (INRMP) for specific DOD installations, (4) covered by an adequate management plan or agreement that protects the primary constituent elements of the habitat.

We have not excluded any lands from this proposal pursuant to section 3(5)(A) and 4(b)(2) of the Act. No HCPs that

include the California tiger salamander are near completion, the proposal does not include any DOD installations, and no management plans that protect the California tiger salamander have been developed. During the proposal period, we hope to work with private landowners on developing conservation agreements that would protect the species. If these are finalized, we may exclude them from final critical habitat for the California tiger salamander.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as part of critical habitat. We cannot exclude such areas from critical habitat if such exclusion would result in the extinction of the species.

An analysis of the economic impacts of proposing critical habitat for the California tiger salamander is being prepared. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at *http://ventura.fws.gov,* or by contacting the Ventura Fish and Wildlife Office directly (see **ADDRESSES** section)

Peer Review

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure that our critical habitat designation is 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. Requests for public hearings must be made in writing at least 15 days prior to the close of the public comment period. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings in the **Federal Register** and local newspapers at least 15 days prior to the first hearing.

Clarity of the Rule

Executive Order 12866 requires each agency to write regulations and notices that are easy to understand. We invite your comments on how to make this proposed rule easier to understand, including answers to questions such as the following: (1) Are the requirements in the proposed rule clearly stated? (2) Does the proposed rule contain technical jargon that interferes with the clarity? (3) Does the format of the proposed rule (grouping and order of the sections, use of headings, paragraphing, and so forth) aid or reduce its clarity? (4) Is the description of the notice in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposed rule? (5) What else could we do to make this proposed rule easier to understand?

Send a copy of any comments on how we could make this proposed rule easier to understand to: Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW., Washington, DC 20240. You may e-mail your comments to this address: *Exsec@ios.doi.gov*.

Required Determinations

Regulatory Planning and Review

This document has been reviewed by the Office of Management and Budget (OMB), in accordance with Executive Order 12866. OMB makes the final determination under Executive Order 12866. We are preparing a draft economic analysis of this proposed action, which will be available for public comment, to determine the economic consequences of designating the specific area as critical habitat.

Within these areas, the types of Federal actions or authorized activities that we have identified as potential concerns are:

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

(2) Regulation of water flows, damming, diversion, and channelization by any Federal agency;

(3) Road construction and maintenance, right-of-way designation, and regulation funded or permitted by the Federal Highways Administration;

(4) Voluntary conservation measures by private landowners funded by the Natural Resources Conservation Service;

(5) Regulation of airport improvement activities by the Federal Aviation Administration;

(6) Licensing of construction of communication sites by the Federal Communications Commission; and,

(7) Funding of activities by the U.S. Environmental Protection Agency, Department of Energy, Federal Emergency Management Agency, Federal Highway Administration, or any other Federal agency.

The availability of the draft economic analysis will be announced in the **Federal Register** and in local newspapers so that it is available for public review and comments.

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

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. However, the SBREFA does not explicitly define ''substantial number'' or ''significant economic impact.'' Consequently, to assess whether a ''substantial number'' of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. The SBREFA also amended the RFA to require a certification statement. We are hereby certifying that this proposed rule will not have a significant effect on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations,

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

To determine if the rule would affect a substantial number of small entities, we considered the number of small entities affected within particular types of economic activities (*e.g.*, housing development, grazing, oil and gas production, timber harvesting, *etc.*). We considered each industry individually to determine if certification is appropriate. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement; some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies; non-Federal activities are not affected by the designation.

If this critical habitat designation is finalized, Federal agencies must consult with us if their activities may affect designated critical habitat. Consultations to avoid the destruction or adverse modification of critical habitat would be incorporated into the existing consultation process.

Since the Santa Barbara County DPS of the California tiger salamander was listed (2000), we have conducted approximately five formal consultations involving this species. These formal consultations, which all involved Federal actions, included a sewer line installation, an expansion and upgrade of wastewater treatment facilities, pond restoration activities, one bridge replacement, and one culvert removal. These five consultations resulted in non-jeopardy biological opinions.

We also conducted approximately 21 informal consultations since this species was listed. These informal consultations concerned activities such as repair, maintenance, or improvement of drainage and wastewater treatment facilities, cleanup of a superfund facility, closed landfill repair activities, soil remediation activities, oil well and sump closures, vineyard development, and other developments authorized by various federal agencies or review of National Pollution Discharge Elimination System permit applications to State water quality agencies by developers, municipalities, mines, businesses, and others. Informal consultations regarding the California tiger salamander usually resulted in recommendations to employ erosion control measures, conduct certain activities by hand, and avoid small mammal burrows, relied on current State water quality standards for protection of water quality, and resulted in little to no modification of the proposed activities. In reviewing these past informal consultations and the activities involved in light of proposed critical habitat, we do not believe the outcomes would have been different in areas designated as critical habitat.

In summary, we have considered whether this proposed designation would result in a significant economic impact on a substantial number of small entities, and we have concluded that it would not. Future consultations are not likely to affect a substantial number of small entities. We have no indication that the types of activities we review under section 7 of the Act will change significantly in the future. There would be no additional section 7 consultations resulting from this rule as all six of the proposed critical habitat units are currently occupied by California tiger salamanders, and the consultation requirement would be triggered by the presence of a listed species.

This rule would result in major project modifications only when proposed activities with a Federal nexus would destroy or adversely modify critical habitat. While this may occur, it is not expected to occur frequently enough to affect a substantial number of small entities. Therefore, we are certifying that the proposed designation of critical habitat for the Santa Barbara County DPS of the California tiger salamander will not have a significant economic impact on a substantial number of small entities, and an initial regulatory flexibility analysis is not required. This determination will be revisited after the close of the comment period and revised, if necessary, in the final rule.

This discussion is based upon the information regarding potential economic impact that is available to us at this time. This assessment of economic effect may be modified prior to final rulemaking based upon review of the draft economic analysis prepared pursuant to section 4(b)(2) of the ESA and E.O. 12866. This analysis is for the purposes of compliance with the Regulatory Flexibility Act and does not reflect our position on the type of economic analysis required by *New Mexico Cattle Growers Assn.* v. *U.S. Fish & Wildlife Service* 248 F.3d 1277 (10th Cir. 2001).

Executive Order 13211

On May 18, 2001, the President issued an Executive Order (E.O. 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This proposed rule to designate critical habitat for the California tiger salamander is not a significant regulatory action under Executive Order 12866, and it is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

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

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we will use the economic analysis to further evaluate this situation.

Takings

In accordance with Executive Order 12630, the rule does not have significant takings implications. A takings implication assessment is not required. 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 tiger salamander. Due to current public knowledge of the species' protection, the prohibition against take of the species both within and outside of the designated areas, and the fact that critical habitat provides no incremental restrictions, we do not anticipate that property values will be affected by the proposed critical habitat designation. While real estate market values may temporarily decline following designation, due to the perception that critical habitat designation may impose additional regulatory burdens on land use, we expect any such impacts to be short term. Additionally, critical habitat

designation does not preclude development of HCPs and issuance of incidental take permits. Owners of areas that are included in the designated critical habitat will continue to have opportunity to use their property in ways consistent with the survival of the California tiger salamander.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with DOI and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by the California tiger salamander imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the survival of the species are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Endangered Species Act. This proposed rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the California tiger salamander.

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

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

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

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, ''Government-to-Government Relations with Native American Tribal Governments'' (59 FR 22951), Executive Order 13175, and the Department of Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. We have determined that there are no tribal lands essential for the conservation of the California tiger salamander. Therefore, designation of critical habitat for the California tiger salamander has not been designated on Tribal lands.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Field Supervisor, Ventura Fish and Wildlife Office (see **ADDRESSES** section).

Author(s)

The primary author of this package is the Ventura Fish and Wildlife Office staff.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

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

PART 17—[AMENDED]

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

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

2. In § 17.11(h), revise the entry for ''Salamander, California tiger, Santa Barbara County DPS'' under ''AMPHIBIANS'' to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*	*	
AMPHIBIANS							
*	*	*	*	*	*	*	
Salamander, California tiger, Santa Barbara County DPS.	*Ambystoma californiense*.	U.S.A. (CA)	Entire	E	677E, 702	17.95(d)	NA
*	*	*	*	*	*	*	

3. In § 17.95(d), revise the entry for ''*Ambystoma californiense*'' under ''AMPHIBIANS'' to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(d) Amphibians.

* * * * *

Santa Barbara County Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*)

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

(2) The primary constituent elements of critical habitat for the Santa Barbara County Distinct Population Segment of the California tiger salamander are the habitat components that provide:

(i) Standing bodies of fresh water, including natural and man-made (*e.g.,* stock) ponds, vernal pools, and dune ponds, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a sufficient length of time (*i.e.,* 12 weeks) necessary for the species to complete the aquatic portion of its life cycle.

(ii) Barrier-free uplands adjacent to breeding ponds that contain small mammal burrows, including but not limited to burrows created by the California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thommomys bottae*). Small mammals are essential in creating the underground habitat that adult California tiger salamanders depend upon for food, shelter, and protection from the elements and predation.

(iii) Upland areas between breeding locations and areas with small mammal burrows that allow for dispersal among such sites.

(3) Critical habitat does not include existing features and structures, such as buildings, aqueducts, airports, roads, and other developed areas not containing one or more of the primary constituent elements.

Critical Habitat Map Units

(4) Data layers defining map units were created on a base of USGS 7.5′ quadrangles, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(5) **Note:** Map 1 (index map) follows.

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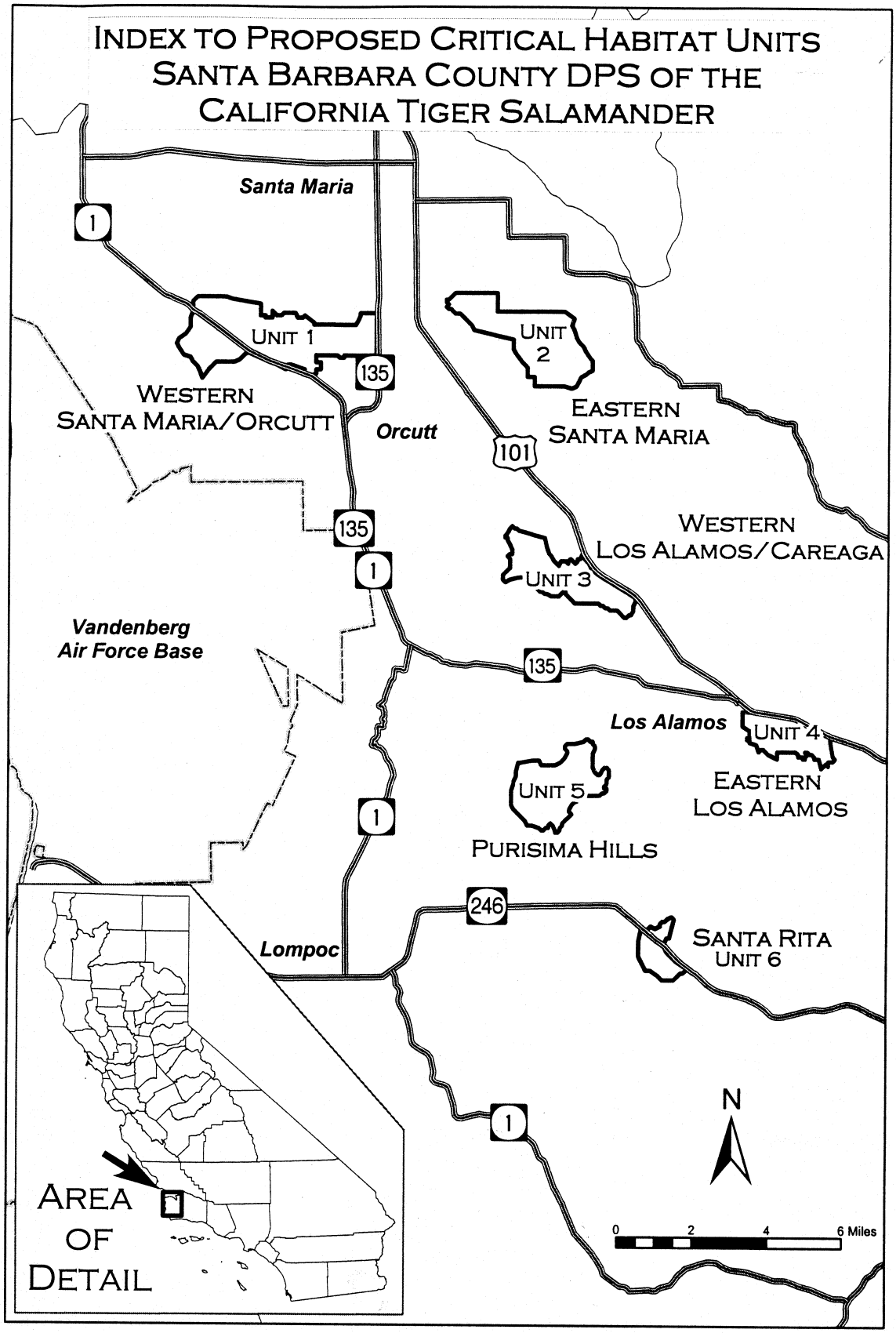

BILLING CODE 4310–55–C

(6) Unit 1: Western Santa Maria/Orcutt Unit, Santa Barbara County, California.

(i) From USGS 1:24,000 scale quadrangle maps Guadalupe, Santa Maria, Orcutt and Casmalia. Lands bounded by UTM Zone 10, NAD 1927 coordinates (E, N): 727900, 3864900; 728200, 3864800; 729400, 3864600; 729400, 3864100; 729600, 3864100; 729600, 3864000; 729900, 3864000; 729900, 3864300; 730100, 3864100; 730300, 3864100; 730400, 3864200; 730900, 3864200; 731000, 3864000; 731200, 3864000; 731300, 3864100; 731700, 3863800; 731700, 3863700; 733500, 3863700; 733600, 3863900; 733700, 3864100; 733700, 3864200; 734400, 3864200; 734400, 3862400; 733000, 3862400; 733000, 3862300; 732800, 3862300; 732700, 3862400; 731800, 3862400; 731800, 3862100; 732000, 3862100; 732000, 3861800; 731800, 3861800; 731800, 3861600; 731500, 3861500; 731200, 3861600; 731300, 3861800; 730700, 3862000; 730600, 3862000; 730500, 3861800; 730100, 3862000; 729800, 3862100; 728900, 3862500; 728800, 3862500; 728600, 3862300; 728500, 3862200; 728300, 3862100; 727500, 3862100; 727200, 3861800; 726900, 3861400; 726800, 3861700; 726700, 3861900; 726500, 3862100; 726400, 3862300; 726100, 3862400; 725900, 3862700; 725800, 3862900; 725900, 3863100; 726200, 3863300; 726400, 3863600; 726400, 3864000; 726500, 3864300; 726500, 3864700; 726600, 3864800; 726700, 3864900; 727900, 3864900.

(ii) **Note:** Unit 1 (Map 2) follows.

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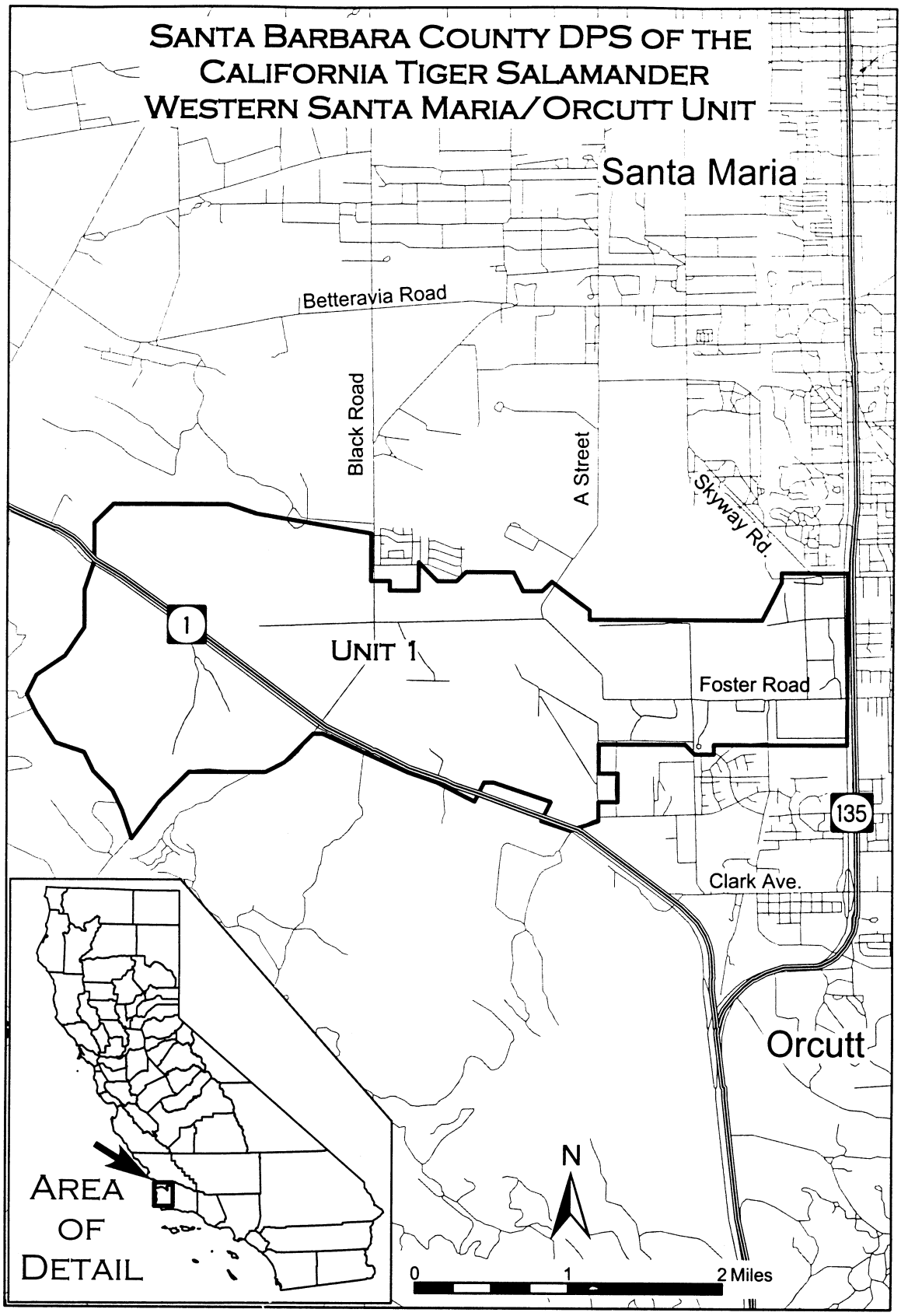

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(7) Unit 2: Eastern Santa Maria Unit, Santa Barbara County, California.

(i) From USGS 1:24,000 scale quadrangle maps Guadalupe, Santa Maria, Twitchell Dam, Orcutt and Sisquoc. Lands bounded by UTM Zone 10, NAD 1927 coordinates (E, N): 737400, 3864500; 737500, 3864600; 737400, 3864700; 737400, 3864800; 737500, 3864800; 737800, 3865100; 739600, 3865100; 739600, 3864300; 742500, 3864300; 742900, 3864000; 742800, 3863700; 742900, 3863500; 743000, 3863200; 743100, 3863000; 743200, 3862900; 743300, 3862800; 743400, 3862600; 743600, 3862300; 743700, 3862200; 743700, 3861800; 743500, 3861700; 743400, 3861600; 743200, 3861500; 743100, 3861300; 743000, 3861100; 742800, 3861000; 742500, 3861100; 741200, 3861100; 741200, 3861500; 740900, 3861500; 740900, 3861900; 740700, 3862100; 740400, 3862500; 740300,3862700; 740300,3863100; 738600, 3863500; 738500, 3863700; 738000, 3864200; 737800, 3864200; 737700, 3864300; 737600, 3864400; 737500, 3864400; 737400, 3864500.

(ii) **Note:** Unit 2 (Map 3) follows.

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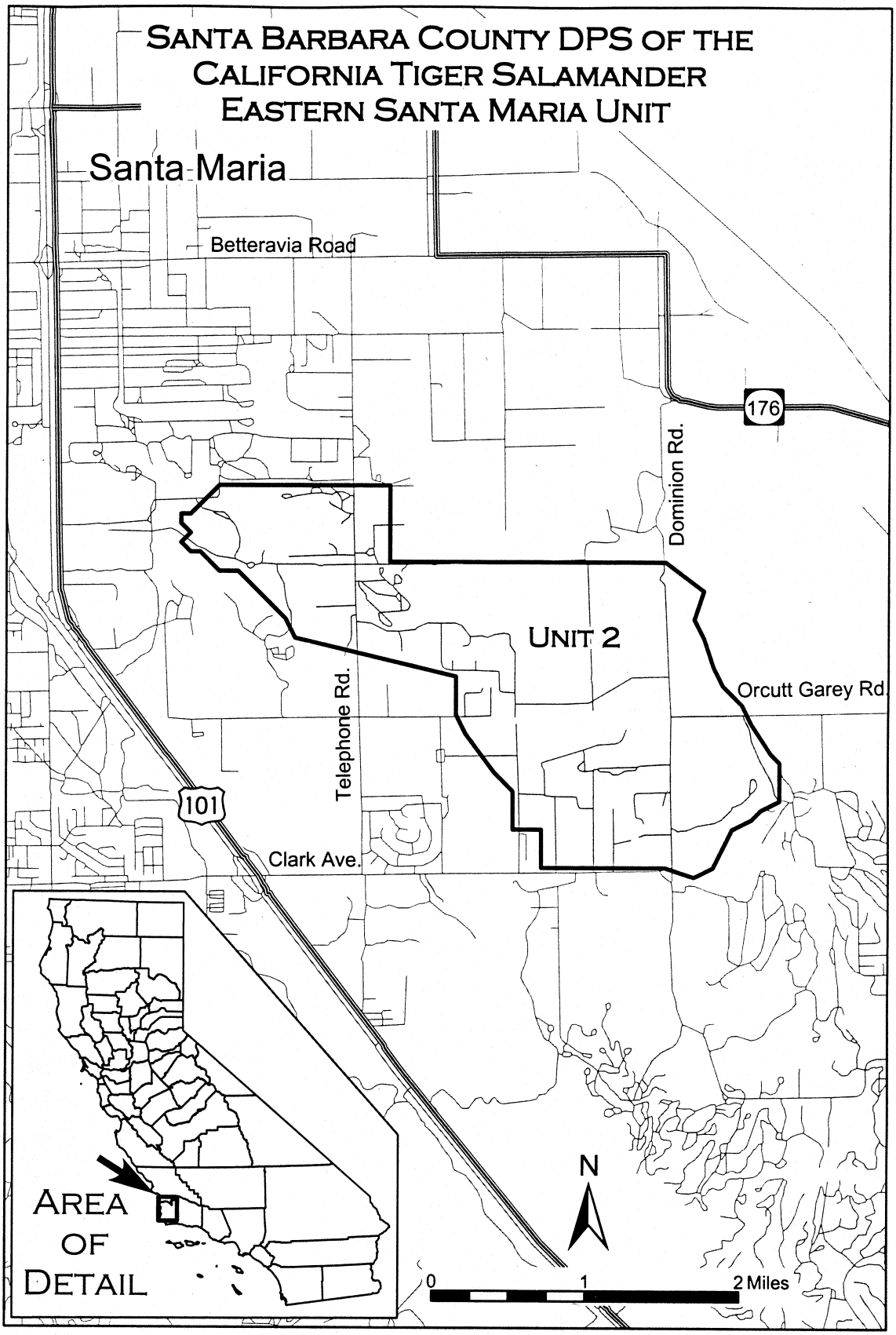

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(8) Unit 3: Western Los Alamos/Careaga Unit, Santa Barbara County, California.

(i) From USGS 1:24,000 scale quadrangle maps Orcutt and Sisquoc. Lands bounded by UTM Zone 10, NAD 1927 coordinates (E, N): 739900, 3853000; 740200, 3853300; 740200, 3853700; 740100, 3853800; 740200, 3853900; 740300, 3853900; 740300, 3854100; 740200, 3854300; 740100, 3854500; 740100, 3854600; 740000, 3854600; 740000, 3854700; 740100, 3854800; 740200, 3855000; 740300, 3855100; 740400, 3855000; 740500, 3855000; 740600, 3854900; 741000, 3854800; 741300, 3854700; 741700, 3854600; 741800, 3854200; 741900, 3853900; 742000, 3853800; 742100, 3853600; 742300, 3853400; 742400, 3853600; 742600, 3853600; 742700, 3853500; 742700, 3853600; 742800, 3853700; 742900, 3853600; 743000, 3853500; 743100, 3853600; 743100, 3853700; 743200, 3853700; 743300, 3853900; 743400, 3853700; 743600, 3853500; 743700, 3853300; 743900, 3853100; 744200, 3852900; 744700, 3852600; 745200, 3852300; 745500, 3852100; 745600, 3852000; 745600, 3851900; 745500, 3851700; 745500, 3851500; 745400, 3851300; 745300, 3851300; 745200, 3851200; 745100, 3851200; 745000, 3851300; 744800, 3851500; 744500, 3851500; 744400, 3851600; 744300, 3851600; 744200, 3851700; 744100, 3851700; 744000, 3851800; 743000, 3851800; 742700, 3852100; 742600, 3852200; 742600, 3852300; 742500, 3852300; 742400, 3852200; 742300, 3852100; 742000, 3852100; 741800, 3852200; 741700, 3852200; 741600, 3852300; 741500, 3852300; 741400, 3852400; 741200, 3852500; 741000, 3852800; 740900, 3852900; 740600, 3852900; 740200, 3852800; 740000, 3852700; 739900, 3852800; 739900, 3853000.

(ii) **Note:** Unit 3 (Map 4) follows.

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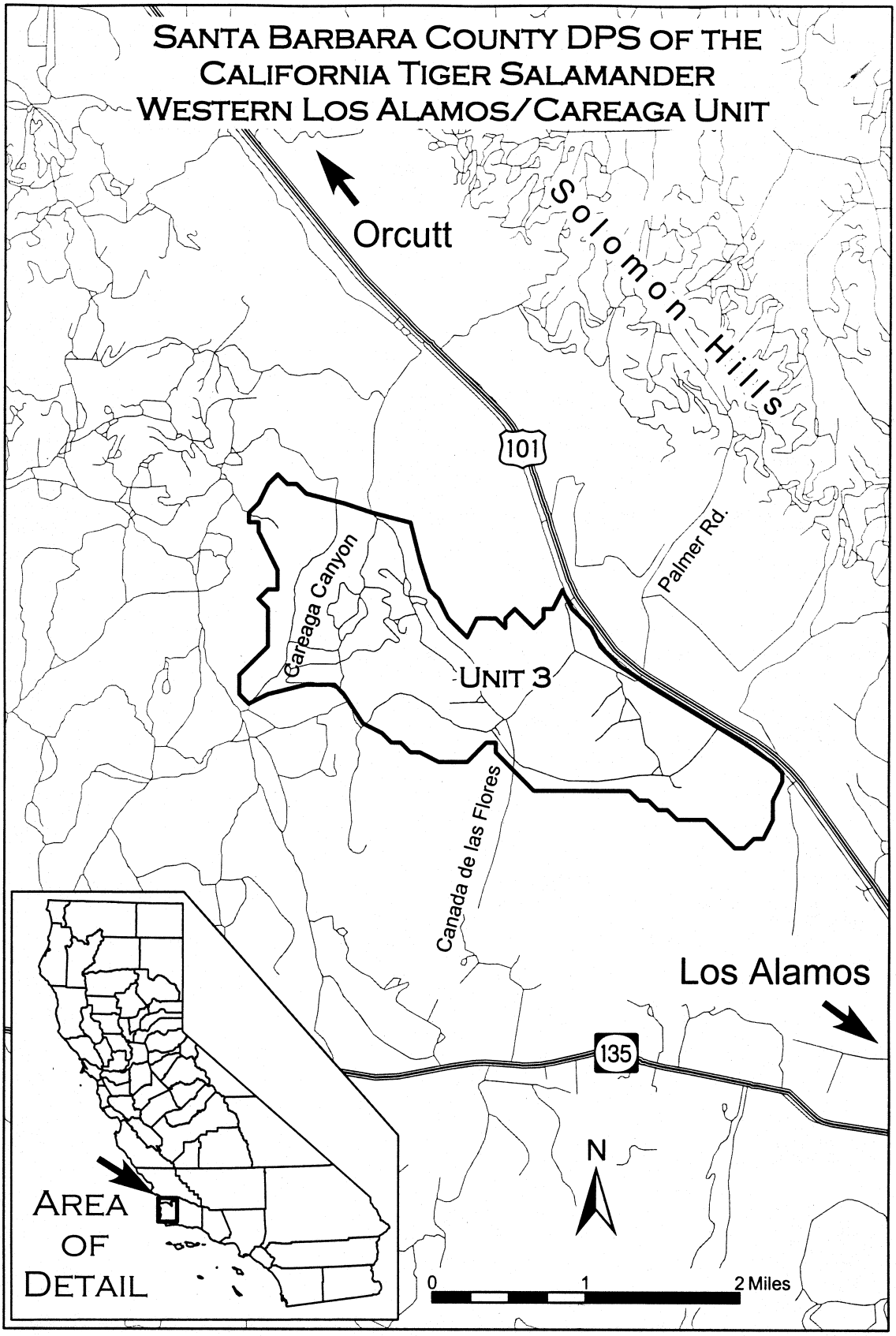

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(9) Unit 4: Eastern Los Alamos Unit, Santa Barbara County, California.

(i) From USGS 1:24,000 scale quadrangle maps Los Alamos and Zaca Creek. Lands bounded by UTM Zone 10, NAD 1927 coordinates (E, N): 750500, 3846400; 750200, 3846600; 750200, 3847200; 750600, 3847200; 751100, 3847100; 751900, 3847000; 752000, 3847000; 752400, 3846900; 752600, 3846800; 753900, 3846200; 754000, 3846200; 754000, 3845900; 754100, 3845300; 754200, 3845200; 754100, 3845100; 753900, 3845100; 753900, 3844900; 753800, 3845000; 753600, 3844800; 753500, 3845200; 753300, 3845200; 753300, 3845300; 753200, 3845400; 753100, 3845400; 753000, 3845500; 752900, 3845500; 753000, 3845400; 752900, 3845300; 752900, 3845200; 752800, 3845200; 752800, 3845300; 752600, 3845300; 752600, 3845400; 752500, 3845500; 752300, 3845500; 751700, 3845500; 751700, 3845200; 751300, 3845400; 751100, 3845600; 751000, 3845600; 750900, 3845500; 750800, 3845800; 750500, 3845900; 750500, 3846000; 750400, 3846000; 750400, 3846100; 750500, 3846100; 750500, 3846400.

(ii) **Note:** Unit 4 (Map 5) follows.

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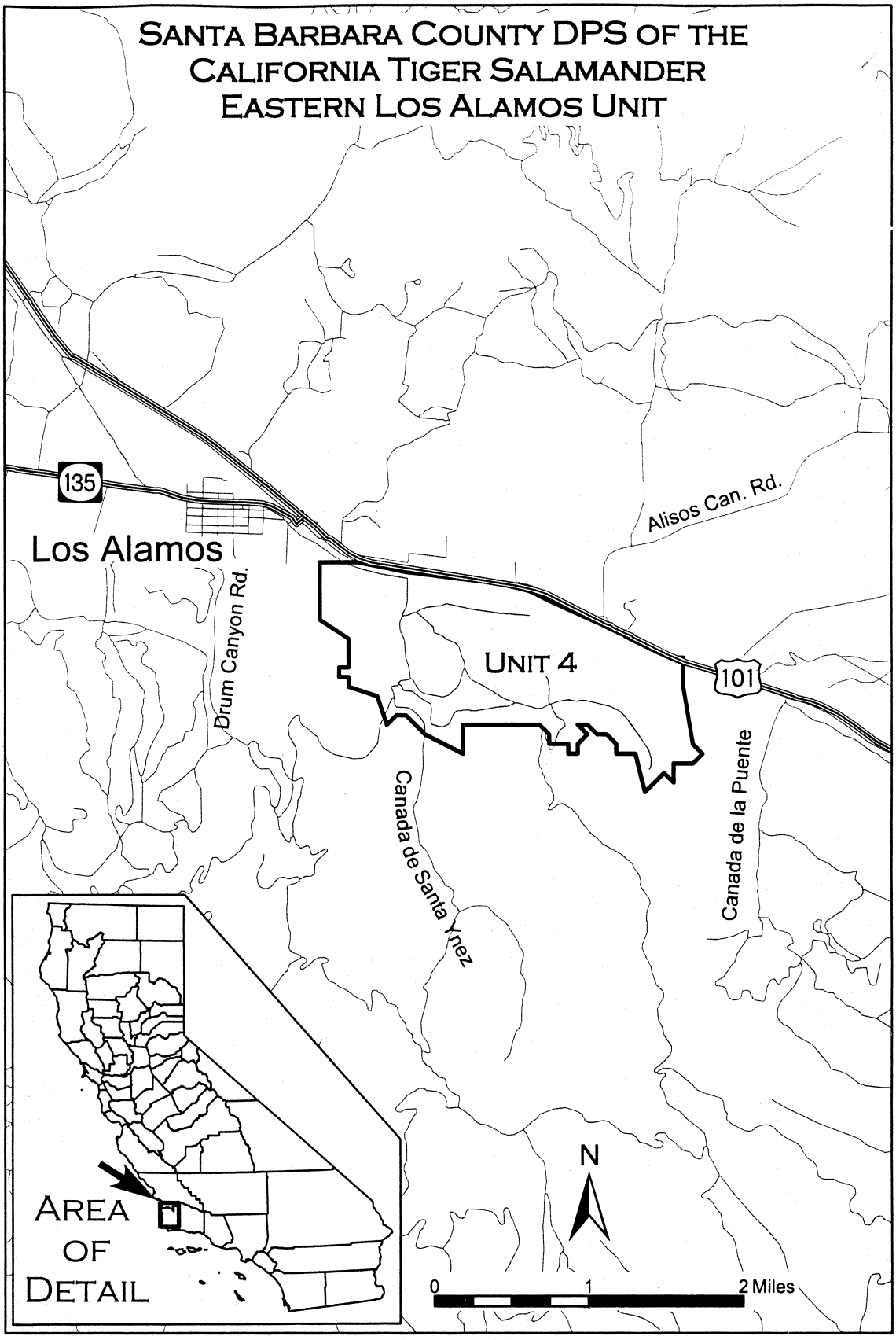

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(10) Units 5 and 6: The Purisima Hills and Santa Rita Units, Santa Barbara County, California.

(i) From USGS 1:24,000 scale quadrangle maps Lompoc and Los Alamos. Lands bounded by UTM Zone 10, NAD 1927 coordinates (E, N): 740300, 3843800; 740400, 3844100; 740400, 3844200; 740500, 3844400; 740500, 3844600; 740600, 3845000; 740700, 3845000; 741200, 3845100; 741400, 3845100; 741500, 3845100; 741600, 3844900; 742100, 3844900; 742200, 3844900; 742400, 3845000; 742600, 3845200; 742700, 3845400; 742700, 3845500; 742600, 3845600; 742600, 3845700; 742700, 3845800; 742900, 3845800; 743000, 3845800; 743400, 3845900; 743500, 3846000; 743600, 3846000; 743700, 3845900; 743800, 3845900; 743800, 3845800; 743900, 3845700; 743900, 3845600; 743800, 3845400; 743800, 3845300; 743800, 3844800; 743900, 3844600; 744000, 3844500; 744100, 3844500; 744200, 3844700; 744300, 3844800; 744400, 3844800; 744500, 3844700; 744500, 3844400; 744400, 3844300; 744400, 3844100; 744300, 3844000; 744300, 3843900; 744400, 3843900; 744400, 3843800; 744300, 3843700; 744200, 3843700; 744100, 3843600; 743500, 3843600; 743400, 3843500; 743200, 3843400; 743000, 3843300; 742900, 3843200; 742800, 3843000; 742800, 3842900; 742900, 3842800; 742800, 3842700; 742700, 3842600; 742500, 3842400; 742500, 3842300; 742400, 3842200; 742400, 3842100; 742300, 3842000; 742200, 3842000; 742200, 3842100; 742100, 3842300; 742000, 3842400; 741900, 3842300; 741900, 3842200; 741800, 3842200; 741700, 3842100; 741600, 3842100; 741500, 3842200; 741200, 3842300; 741000, 3842300; 740900, 3842500; 740800, 3842600; 740700, 3842700; 740400, 3843000; 740300, 3843200; 740300, 3843800.

(ii) From USGS 1:24,000 scale quadrangle map Los Alamos. Lands bounded by UTM Zone 10, NAD 1927 coordinates (E, N): 745900, 3837900; 746000, 3837800; 746100, 3837800; 746300, 3838000; 746500, 3837900; 746700, 3838000; 746700, 3838100; 746800, 3838200; 746900, 3838200; 747000, 3838300; 747200, 3838400; 747300, 3838300; 747200, 3837900; 747100, 3837500; 747000, 3837500; 746900, 3837300; 746900, 3837100; 747000, 3836900; 747400, 3836500; 747700, 3836300; 747900, 3836200; 747700, 3836000; 747600, 3836000; 747300, 3835700; 747200, 3835700; 746800, 3835700; 746600, 3835900; 746300, 3836100; 746100, 3836100; 745800, 3836700; 745800, 3837400; 745900, 3837900.

(iii) **Note:** Units 5 and 6 (Map 6) follow.

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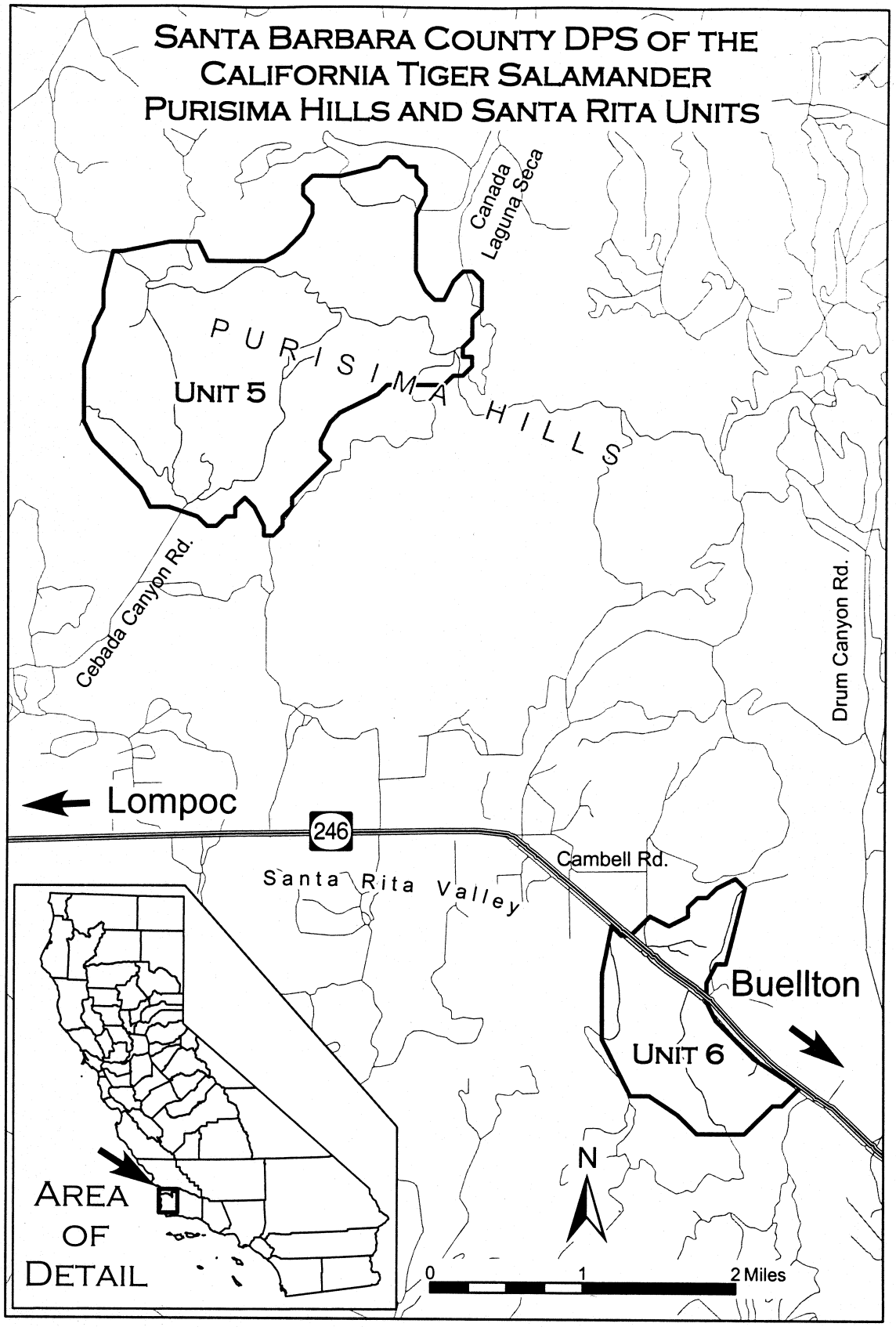

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* * * * *

Dated: January 14, 2004.

Craig Manson,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 04–1296 Filed 1–21–04; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AI50

Endangered and Threatened Wildlife and Plants; Withdrawal of Proposed Rule To List *Lepidium papilliferum* (Slickspot Peppergrass) as Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule; withdrawal.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), withdraw the proposed rule, published in the **Federal Register** on July 15, 2002 (67 FR 46441), to list *Lepidium papilliferum* (slickspot peppergrass) as endangered. This withdrawal is based on our conclusion that there is a lack of strong evidence of a negative population trend, and the conservation efforts contained in formalized plans have sufficient certainty that they will be implemented and will be effective such that the risk to the species is reduced to a level below the statutory definition of endangered or threatened. Therefore, we are withdrawing the proposed determination to list *L. papilliferum* as endangered.

ADDRESSES: The supporting record for this rule is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Snake River Fish and Wildlife Office, 1387 S. Vinnell Way, Room 368, Boise, ID 83709.

FOR FURTHER INFORMATION CONTACT: Jeff Foss, Field Supervisor, Snake River Fish and Wildlife Office (*see* **ADDRESSES** section) (telephone 208/378–5243; facsimile 208/378–5262).

SUPPLEMENTARY INFORMATION:

Background

Biological Overview and Survey History

Lepidium papilliferum is a herbaceous annual or biennial plant that occurs exclusively in sagebrush-steppe (*Artemisia* spp.) ecosystem at approximately 2,200 feet (ft) (670 meters (m)) to 5,400 ft (1,645 m) elevation in southwestern Idaho. This species is found along the Snake River Plain and Owyhee Plateau in Ada, Canyon, Gem, Elmore, Payette, and Owyhee Counties, Idaho. Efforts have been made to determine whether or not suitable habitat occurs in eastern Oregon. The Bureau of Land Management (BLM) determined that the only suitable habitat available for the species in Oregon was in the Succor Creek area of the Vale District of the BLM. Surveys were conducted in the spring of 2003 in Succor Creek (J. Findley, BLM, botanist, *in litt.* 2003). Based on these surveys and a review of the habitat, it was determined that the species does not occur nor does suitable habitat exist for this species in Oregon (Findley, *in litt.* 2003). BLM has also conducted limited surveys for *L. papilliferum* to the east of the current known range of the species within the Shoshone and Burley Field Office areas that have yielded no observations of plants (BLM, *in litt.* 2000).

Plant Characteristics and Life History Traits

Lepidium papilliferum was originally described as *L. montanum* var. *papilliferum* in 1900 by Louis Henderson. It was included as a distinct species in a recent review of taxa in the mustard family (*Brassicaceae*) (Rollins 1993). Rollins (1993) based his justification on difference in physical features between the two species such as: (1) *L. papilliferum* has trichomes (hairlike structures) occurring on the filaments of stamens (part of flower that produces pollen), but *L. montanum* does not; (2) all the leaves on *L. papilliferum* are pinnately divided, whereas *L. montanum* has some leaves that are not divided; (3) the shape of the silique (seed capsule) of *L. papilliferum* is different from that of *L. montanum*; and (4) the silique of *L. papilliferum* has no wings, or even vestiges of wings, at its apex (end of the capsule), unlike that of *L. montanum* (Moseley 1994). A recent review of the taxonomic status by R. Lichvar (*in litt.* 2002) concluded that, using classic morphological features and study of herbarium specimens, *L. papilliferum* has distinct features that may warrant species recognition. Also Meyer *et al.* (in press) concluded that the ecological and life history features of *L. papilliferum* are distinct from those of *L. montanum* and argued for the preservation of *L. papilliferum* as a distinct taxon.

Lepidium papilliferum is a taprooted annual or biennial plant that reaches 4 to 12 inches (in) (10 to 30 centimeters (cm)) in height. The species is a monocarpic plant that displays two life cycles. The annual life form matures, reproduces by setting seed, and dies in one growing season, whereas the biennial life form initiates growth in the first year, and does not produce seed and die until the second year. Leaves and stems are pubescent (covered with fine, soft hairs), and the divided leaves have linear segments (Moseley 1994). Numerous small, white 4-petalled flowers terminate the branches. This species produces small, orbicular (spherical) fruits, which are approximately 0.1 in (3 millimeters) long.

Lepidium papilliferum is mainly visited and pollinated by bees (*Anthophoridae, Apidae, Colletidae, Chrysididae, Formicidae, Halictidae, Sphecidae,* and *Vespidae* families), flies (*Bombyliidae, Syrphidae,* and *Tachinidae* families), and some beetle species (*Cerambycidae, Chrysomelidae, Dermestidae* and *Melyridae* families). Limited visitation has also been observed by butterflies (*Gelechiidae* family) and bugs (*Miridae* family) (Robertson and Klemish 2003). Bees appear to be the most significant pollinators of *L. papilliferum*, with the highest pollen loads of all species observed (Robertson and Klemish 2003). Insect visitations have been shown to be essential for *L. papilliferum* pollination and fruit production (Robertson and Klemish 2003). The possibility of wind-mediated self- or cross-pollination is remote given that the structure of *L. papilliferum* flowers and pollen grains are not consistent with those of wind pollinated species (Robertson and Klemish 2003).

The primary seed dispersal mechanism for *Lepidium papilliferum* has not been definitively identified. Belnap (*in litt.* 2002) stated that, ''dispersal mechanisms cannot be established based on size, weight, or appendages of seeds, and it is not known how readily this plant can colonize new habitats.'' Animal transport, water, and wind may play a minor role, but the seed lacks structures to facilitate dispersal by animals, wind, or water (Moseley 1994). Due to the high winds at Juniper Butte and the weight of *L. papilliferum* seeds, it has been hypothesized that *L. papilliferum* is dispersed by wind (U.S. Air Force, *in litt.* 2002b) (Air Force). The weight of 100 *L. papilliferum* seeds ranges from 0.035 to 0.05 grams (Air Force, *in litt.* 2002b).

Like many short-lived plants growing in arid environments, the above-ground number of *Lepidium papilliferum* individuals at any one site can naturally fluctuate widely from one year to the next, depending primarily on seasonal precipitation patterns (Mancuso and