



# Federal Register

---

**Tuesday,  
August 10, 2004**

---

**Part II**

## **Department of the Interior**

---

**Fish and Wildlife Service**

---

**50 CFR Part 17**

**Endangered and Threatened Wildlife and  
Plants; Designation of Critical Habitat for  
the California Tiger Salamander, Central  
Population; Proposed Rule**

**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AF68

**Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population****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 California tiger salamander (*Ambystoma californiense*) (referred to hereafter as the CTS) pursuant to the Endangered Species Act of 1973, as amended (Act). This rule contains the proposal for the Central California population of the CTS (hereafter referred to as the Central population). Approximately 382,666 acres (ac) (154,860 hectares (ha)) occur within the boundaries of the proposal for the Central population.

**DATES:** We will accept comments from all interested parties until October 12, 2004. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by September 24, 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, Sacramento Fish and Wildlife Office (SFWO), 2800 Cottage Way, W-2605, Sacramento, CA 95825.

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

3. You may send comments by electronic mail (e-mail) to [fw1Central\\_cts\\_pch@fws.gov](mailto:fw1Central_cts_pch@fws.gov). In the event that our Internet connection is not functional, please submit your comments by the alternate methods mentioned above. Please submit Internet comments 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 SFWO at phone number 916/414-6600. Please note that the Internet

address will be closed out at the termination of the public comment period.

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 SFWO, at the address given above. In the event that our Internet connection is not functional, please contact the Service (see **ADDRESSES** section) for alternative methods in obtaining referenced materials e.g., economic analysis.

**FOR FURTHER INFORMATION CONTACT:** For general information, and for information about Alameda, Amador, Calaveras, Contra Costa, Fresno, Kern, Kings, Madera, Mariposa, Merced, Sacramento, San Joaquin, Santa Clara, Solano, Stanislaus, Tulare, and Yolo Counties, contact Wayne White, Field Supervisor, SFWO, at the address given above (telephone 916/414-6600; facsimile 916/414-6712).

For information about Monterey, San Benito, and San Luis Obispo Counties, contact Diane Noda, Field Supervisor, Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2394 Portola Road, Suite B, Ventura, CA 93003 (telephone 805/644-1766; facsimile 805/644-3958).

**SUPPLEMENTARY INFORMATION:****Executive Summary**

The proposed critical habitat is in the following 20 counties in central California: Alameda, Amador, Calaveras, Contra Costa, Fresno, Kern, Kings, Madera, Mariposa, Merced, Monterey, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Clara, Solano, Stanislaus, Tulare, and Yolo. This proposed designation does not include critical habitat for the Santa Barbara County or Sonoma County areas. A proposed rule to designate critical habitat for the Santa Barbara County population was published on January 22, 2004 (69 FR 3064). We are not proposing to designate critical habitat for the Sonoma County geographic area of the California tiger salamander at this time. We are currently in the process of developing a management strategy for the Sonoma County area for the California tiger salamander and other listed and sensitive species. The planning efforts include various local, State and Federal agencies including ourselves, the U.S. Army Corps of Engineers, the California Department of Fish and Game, the County of Sonoma, the cities of Santa Rosa, Rohnert Park, and Cotati, and local and regional environmental

organizations. The group is developing a management and restoration plan as well as identifying areas for conservation of the vernal pool and other California tiger salamander habitat within the area.

We expect the plan, when complete, to provide a better means of identifying essential habitat than our critical habitat designation process can provide at the present time. By bringing together all local, State, and Federal species experts and local planning officials we are better able to identify areas which are essential for the conservation of the California tiger salamander in Sonoma County. The management planning process is a collaborative effort involving cooperation and input from numerous stakeholders such as landowners, public land managers, and the general public. This allows the best information and local knowledge to be brought to the table, and may encourage a sense of commitment to the California tiger salamander's continued well being in the area. Due to time constraints we are unable to match this level of public participation in the critical habitat designation process. We believe that currently designating proposed critical habitat would cause more harm to the species by causing delays to and confusing the current ongoing process. The enhancement and management of California tiger salamander habitat will benefit greatly from coordination between the various land owners and managers in the area. The ongoing planning process can provide for that coordination, whereas the critical habitat designation process may not. Once the planning efforts have identified areas essential for the California tiger salamander, we will consider proposing critical habitat at that time. Should these planning efforts fail to identify essential areas for the California tiger salamander we will issue a notice to propose additional critical habitat for the species.

Critical habitat identifies specific areas, both occupied and unoccupied by a listed species, which are essential to the conservation of the species and that may require special management considerations or protection. The primary constituent elements for the California tiger salamander are aquatic and upland areas, including vernal pool complexes, 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 Central population 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.

#### 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 parties 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;

(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;

(6) Specific information from present landowners regarding the current extent and quality of extant occurrences and breeding habitats found within the proposed designated geographic areas and units;

(7) Whether or not private landowners are willing to enter into partnerships or conservation agreements with us for the benefit of the California tiger salamander and its habitats;

(8) Whether or not we should enter into conservation agreements or partnerships with private landowners for the conservation of the California

tiger salamander and its habitats and, upon successful implementation of these agreements, if we should remove these areas from critical habitat; and

(9) Appropriateness of excluding any proposed areas, such as portions of the former Fort Ord for which an HCP is currently being developed.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods (see **ADDRESSES** section). 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 (see **ADDRESSES** section).

#### Designation of Critical Habitat Provides Little Additional Protection to the 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 445 species or 36 percent of the 1,244 listed species in the U.S. under the jurisdiction of the Service have designated critical habitat. We address the habitat needs of all 1,244 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 of this consequence, 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 little 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 situation 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 costs of preparation and publication of the designation, the analysis of the economic effects and the costs of requesting and responding to public comments, and, in some cases, the costs of compliance with National Environmental Policy Act, represent the costs 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 these associated costs directly reduce the scarce funds available for direct and tangible conservation actions.

### Background

A physical description of the CTS, and other information about its taxonomy, distribution, life history, and biology is included in the Background section of the final rule to list California tiger salamander as a threatened species, published in the **Federal Register** earlier. Additional relevant information may be found in the final rules to list the Santa Barbara County DPS (65 FR 57242, September 21, 2000) and the Sonoma County DPS CTS (68 FR 13498, March 13, 2003), and the January 22, 2004, proposal to designate critical habitat for the Santa Barbara population (69 FR 3064).

### Habitat Requirements and Characteristics

The CTS inhabits, in Central California, low-elevation (typically below 1,500 feet (ft) (460 m)), vernal pools, vernal pool complexes, and seasonal ponds in associated annual grasslands, oak savannah, and coastal scrub plant communities of the Bay Area (Santa Clara Valley), Central Coast, Central Valley, and Southern San Joaquin Valley (Shaffer *et al.* 1993; Service 2000; Service 2003).

CTS are found in seasonal ponds, natural vernal pools, vernal pool complexes, and small artificial water bodies such as stockponds for breeding during their aquatic phase (Stebbins

1985; Zeiner *et al.* 1988; Shaffer *et al.* 1993). However, stockponds often are not optimum aquatic breeding habitat for California tiger salamanders because stockponds may not hold water long enough for completion of part of their life cycle. 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 occurrence 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 functioning aquatic habitat. Regardless of vernal pool, pond, or seasonal wetland type, successful breeding ponds for California tiger salamanders need to be inundated (hold water) for a minimum of 12 weeks to allow for successful metamorphosis.

The aquatic component of the Central population habitat consists of temporary ponded freshwater habitats. Historically, the vernal pools and vernal pool complexes 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 layer) that prevents downward percolation of water, and they occur as groups of pools referred to as vernal pool complexes. Vernal pool hydrology is characterized by ponding of water during the late fall, winter, and spring, followed by complete desiccation (drying out) during the summer dry season (Holland and Jain 1998).

California tiger salamanders spend the majority of their lives in upland habitats. The upland component of Central population habitat typically consists of vernal pool grassland or grassland savannah with scattered oak trees. However, some occupied California tiger salamander breeding ponds exist within mixed grassland and woodland habitats, in woodlands, scrub, or chaparral habitats.

Within these upland habitats, adult California tiger salamanders spend part of their lives in the underground burrows of small mammals, especially the burrows of California ground squirrels (*Spermophilus beecheyi*) and valley pocket gophers (*Thomomys bottae*) (Barry and Shaffer 1994), at

depths ranging from 20 cm (8.0 in) to 1 m (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 desiccation 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 and require small mammal burrows for survival. Because they live underground in the burrows of mammals, they are rarely encountered even where abundant.

### 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).

Data suggest 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, in review). More juvenile salamanders were captured at distances of 300, 600, and 1,300 ft (100, 200, and 400 m), respectively, from a breeding pond than at 160 ft (50 m). Large numbers (approximately 20 percent of total captures) were found 1,300 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 2,000 ft (640 m) of the pond, with the remaining 5 percent being found at even greater distances.

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 are typical of the period when adults leave the ponds.

The spatial distribution of California tiger salamanders in the uplands surrounding aquatic habitats or breeding ponds is a key issue for protection of upland and breeding habitat and essential 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 300, 600, and 1,300 ft (100, 200 and 400 m), respectively, from the breeding pond (Trenham and Shaffer, in review). Similarly, Trenham (2001) tracked salamanders to burrows up to 800 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.

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 mile (mi) (1,160 m) (Trenham *et al.* 2001). The frequency of dispersal among known extant occurrences or 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).

Although the studies discussed above provide an approximation of the distances that California tiger salamanders regularly move from their breeding ponds, upland habitat features influence 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. Based on radio-tracked adults, there is no indication that California tiger salamanders favor

certain habitat types as corridors for terrestrial movements (Trenham 2001).

#### Previous Federal Actions

For a discussion of previous Federal actions regarding the Central population, please see the final rule to list the Central California Distinct Population Segment of the California tiger salamander as threatened across its range. Federal actions on the CTS prior to May 2004 are summarized in that final rule, published in a recent **Federal Register**, and are incorporated by reference.

#### Critical Habitat

Critical habitat is defined in section 3(5)(A) 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.

The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. It does not allow government or public access to private lands. 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 may adversely affect critical habitat, and conferences 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 nonfederal 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 physical and biological features (*i.e.*, areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)) and which may require special management considerations or protections, or be specific areas outside of the geographic areas occupied by the species which are determined to be essential to the conservation of the species. Section 3(5)(C) of the Act states that not all areas that can be occupied by a species should be designated as critical habitat unless the Secretary determines that all such areas are essential to the conservation of the species. Regulations at 50 CFR 424.02(j) define special management considerations or protection to mean any methods or procedures useful in protecting the physical and biological features of the environment for the conservation of listed species.

When we designate critical habitat, we may not have the information necessary to identify all areas that are essential for the conservation of the species. Nevertheless, we are required to designate those areas we consider to be essential, using the best information available to us. Accordingly, we do not designate critical habitat in areas outside the geographic area occupied by the species unless the best scientific and commercial data demonstrate that unoccupied areas are essential for the conservation needs of the species.

Within the geographic areas 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 is essential to the conservation of a species, then the area should not be included in the critical habitat designation. We will not designate areas

that do not now have the primary constituent elements, as defined at 50 CFR 424.12(b). We have excluded from this proposal some areas where CTS are currently found, areas of suitable habitat where they might potentially occur, some localities where they historically occurred, and areas that do not have one or more of the primary constituent elements. Only areas considered essential to the conservation of the species are included in this proposal.

Section 4(b)(2) of the Act requires that we take into consideration the economic impact, and any other relevant impact, including impacts to National security, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation when the benefits of exclusion outweigh the benefits of including the areas within critical habitat, provided the exclusion will not result in extinction of the species.

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. Our policy requires Service biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining 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.

We recognize that the proposed designation of critical habitat does not include all of the occupied habitat areas that may eventually be determined to be essential for the conservation of the species. For these reasons, everyone should understand that critical habitat designations do not signal that habitats outside the designation are 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 Central population, 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 proposed listing in 2003 (68 FR 28648). We have also reviewed available information that pertains to the upland and aquatic habitat requirements of this species. In our designation, we included only areas within which the best available information indicates the species currently occurs. We identified proposed critical habitat units that we thought had the highest likelihood to be self-sustaining on the basis of density of CTS occurrences, and kind, amount, and quality of habitat associated with those occurrences. The proposed units represent the range of environmental, ecological, and genetic variation of the CTS and contain the primary constituent elements we have determined are essential to the conservation of the species.

The extant occurrences within proposed units total approximately 68 percent of extant occurrences within the range of the species. These extant occurrences include observations from CNDDDB (2003), data in reports submitted during section 7 consultations, data from 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.

The proposed critical habitat units were delineated by creating approximate areas for the units by screen digitizing polygons (map units) using ArcView (Environmental Systems Research Institute, Inc.), a computer GIS program. The polygons were created by overlaying extant California tiger

salamander location points with 0.7 mile buffers (CNDDDB 2003) (see Criteria section below), and mapped vernal pool grassland habitats (Holland 1998a, 2003), or other vernal pool or grassland location information, onto SPOT imagery (satellite aerial photography).

We evaluated the resulting shape files (delineating historic geographic range and potential suitable habitat), refined elevation and hydrologic ranges, and identified areas of non-essential habitat (*i.e.*, not containing the primary constituent elements) (see Primary Constituent Elements section). We excluded areas that do not contain one or more of the primary constituent elements or were not found to be essential for the conservation of the species because: (1) The area is highly degraded and may not be restorable; (2) the area is small, highly fragmented, or isolated and may provide little or no long-term conservation value; and (3) other areas within the geographic region were determined to be sufficient to meet the conservation needs of the species.

#### 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.

All areas proposed as critical habitat for the Central population are within the species' historic range and contain one or more of the physical or biological features (primary constituent elements) identified as essential for the conservation of the species. Critical habitat for Central population includes essential aquatic habitat, essential upland nonbreeding habitat with underground refugia, dispersal habitat connecting occupied California tiger salamander locations to each other, and vernal pool complexes where integrated function of uplands and wetlands provide physical and biological features

essential to the conservation of the species. In addition, the critical habitat we have proposed is designed to conserve the distinct genetic structure of the Central population and allow for an increase in the size of salamander populations, both of which are essential to the conservation of the species. Special management, such as habitat rehabilitation efforts (e.g., removal of nonnative predators, control of introduced tiger salamanders, and erosion and sediment control measures), may be necessary throughout the areas being proposed.

Based on our current knowledge of the life history, biology, and ecology of the species and the relationship of its essential life history functions to its habitat, as summarized above (see Background section), we have determined that the CTS requires the following primary constituent elements:

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

(2) Barrier-free upland habitats adjacent to breeding ponds that contain small mammal burrows, including but not limited to burrows created by the California ground squirrel and valley pocket gopher. 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 occupied locations (PCE 1) and areas with small mammal burrows (PCE 2) that allow for dispersal among such sites.

(4) The geographic, topographic, and edaphic features that support aggregations or systems of hydrologically interconnected pools, swales, and other ephemeral wetlands and depressions within a matrix of surrounding uplands, which together form hydrologically and ecologically functional units called vernal pool complexes. These features contribute to the filling and drying of the vernal pool, maintain suitable periods of pool inundation for larval salamanders and their food sources, and provide breeding, feeding, and sheltering habitat for juvenile and adult salamanders and small mammals that create burrow systems essential for CTS estivation.

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 Central population breeding and for providing space, food, and cover necessary to sustain early life history stages of larval and juvenile CTS. Breeding habitat consists of fresh water bodies, including natural and man-made ponds (e.g., stockponds), and vernal pools. To be considered essential, aquatic and breeding habitats must have the capability 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 larvae to grow into metamorphosed juveniles so they can become capable of surviving in upland habitats. During periods of drought or less-than-average rainfall, these sites may not hold water long enough for individuals to complete metamorphosis, however, these sites would still be considered essential because they constitute breeding habitat in years of average rainfall. Without its essential aquatic and breeding habitats, the Central population would not survive, reproduce, develop juveniles, and grow into adult individual salamanders that can complete their life cycles.

Essential upland habitats containing underground refugia described as the second PCE are essential for the survival of adult and juvenile salamanders that have recently undergone metamorphosis. Adult and juvenile California tiger salamanders are primarily terrestrial. Adult California tiger salamanders enter aquatic habitats only for relatively 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. California tiger salamanders cannot persist without upland underground refugia. These underground refugia provide protection from the hot, dry weather typical of California 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. Without the continuing presence of small mammal burrows in upland habitats, California tiger salamanders would not be able to survive.

Essential dispersal habitats generally consist of upland areas adjacent to essential aquatic habitats which are not isolated from essential aquatic habitats by barriers that California tiger salamanders cannot cross. Essential dispersal habitats provide connectivity

among CTS suitable aquatic and upland habitats. While CTS can bypass many obstacles, and do not require a particular type of habitat for dispersal, the habitats connecting essential aquatic and upland habitats need to be free of barriers (e.g., a physical or biological feature that prevents salamanders from dispersing beyond the feature) to function effectively. Examples of barriers are areas of steep topography devoid of soil or vegetation. 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 extant occurrences within 0.7 mi (1.13 km) of each other. To provide for conservation of the species, we choose 0.7 mi because that distance provides for 99 percent of the chances that individual salamanders can move and breed between extant occurrences, and, thereby, provides for genetic exchange between individuals within each region.

The dispersal habitats described as the third PCE are essential for the conservation of the CTS. Protecting the ability of California tiger salamanders to move freely across the landscape in search of suitable aquatic and upland habitats is essential in maintaining gene flow and for recolonization of sites that may become temporarily extirpated. Lifetime reproductive success for the CTS and other tiger salamanders is naturally 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 reproduction 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, fewer 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 large 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 vernal pools or ponds can quickly extirpate an occurrence of the species. Therefore, an essential element for successful conservation is the presence and maintenance of sets of interconnected sites that are within the "rescue" distance of other ponds (Trenham *et al.* 2001).

Dispersal habitats described as the third PCE are also essential in preserving the population structure of the CTS. 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 breeding sites within an area, where typical migration from one local occurrence or breeding site to other areas containing suitable habitat is possible, but not routine. Movement between areas containing suitable upland and aquatic habitats (*i.e.*, dispersal) is restricted due to inhospitable conditions around and between areas of suitable habitats. Because many of the areas of suitable habitats may be small and support small numbers of salamanders, local extinction of these small units may be common. The persistence of a metapopulation depends on the combined dynamics of these local extinctions and the subsequent recolonization of these areas through dispersal (Hanski and Gilpin 1991; Hanski 1994).

Vernal pool complexes addressed in the fourth PCE provide a significant amount of the habitat for Central population remaining in the southern San Joaquin and Central Valley regions, but less so in the Bay Area and Coast Range regions because so much vernal pool habitat has been converted to other land uses. Vernal pools and other natural seasonal ponds are the primary historic breeding sites used by California tiger salamanders (Storer 1925; Feaver 1971; Zeiner *et al.* 1988; Trenham *et al.* 2000). Historically, the species occurs in 10 of the 17 California vernal pool regions defined by Keeler-Wolf *et al.* (1998), including northeastern Sacramento Valley, southeastern Sacramento Valley, Santa Rosa, Solano-Colusa, Livermore, Central Coast, Carrizo, southern Sierra Foothills, Santa Barbara, and San Joaquin Valley. Only in historic times have man-made stock ponds joined or, in some areas, replaced vernal pools as breeding habitat. We have included vernal pool complexes as a PCE because they represent a landscape within which the

integrated function of the wetland and upland components together may provide one or more of the first three PCEs plus other physical and biological features essential for the conservation of the Central population, including features that provide for the hydrologic function of essential breeding habitat (PCE 4), and habitat for small mammals that create essential refugia (PCE 4). Upland and wetland functions are highly integrated and interdependent in vernal pool complexes and, rather than trying to partition these functions among discrete PCEs, we included vernal pool complexes as their own PCE.

A landscape that supports a vernal pool complex is typically grassland with areas of obstructed drainage that form the pools. The pools may be fed or connected by low drainage pathways called "swales." Swales are often themselves seasonal wetlands that remain saturated for much of the wet season, but may not be inundated long enough to develop strong vernal pool characteristics. Swales, due to their connection to adjacent pools, are considered part of the vernal pool complex. Some pools have a substantial watershed that contributes to their water inputs; others may fill almost entirely from rain falling directly into the pool (Hanes and Stromberg 1998). Although exceptions are not uncommon, the watershed generally contributes more to the filling of larger or deeper pools, especially playa pools. Even in pools filled primarily by direct precipitation, Hanes and Stromberg (1998) report that subsurface inflows from surrounding soils can help dampen water level fluctuations during late winter and early spring. This function is important for maintaining inundation in breeding pools long enough for CTS larvae to complete their aquatic life stage and metamorphose into adults.

Upland areas associated with vernal pools are also an important source of nutrients to vernal pool organisms (Wetzel 1975). Vernal pool habitats derive most of their nutrients from detritus (decaying matter) washed into pools from adjacent uplands, and these nutrients provide the foundation for a vernal pool aquatic community's food chain. The plants, invertebrate and vertebrate animals of vernal pools, and vernal pool landscapes in general are important providers of food and habitat for waterfowl, shorebirds, wading birds, toads, frogs, and salamanders (Proctor *et al.* 1967; Krapu 1974; Swanson 1974; Morin 1987; Simovich *et al.* 1991; Silveira 1996). The uplands of vernal pool complexes may also provide breeding, feeding, and sheltering habitat

for small mammals that adult CTS depend upon for food, shelter, and protection from the elements and predation.

In summary, the primary constituent elements consist of four components. At a minimum, these elements will include suitable breeding locations and associated uplands or vernal pool complexes associated with breeding locations that are connected by barrier-free dispersal habitats.

#### Criteria Used To Identify Critical Habitat

In our determination of critical habitat for the Central population, we selected areas that possess the physical and biological features that are essential to the conservation of the species and that may require special management considerations or protection. We avoided designating single occurrences unless such areas were considered unique. We also avoided areas surrounded by development or intensive agriculture. Agricultural lands may have been included if they were directly adjacent to the locations we selected to include as essential, thereby substantially reducing upland refugia for California tiger salamanders occupying that area, or were essential for connectivity between known occurrences. We do not have access to data on the most current agricultural uses in many areas of the proposed critical habitat and therefore are uncertain if California tiger salamander upland habitat may or may not remain in some locations.

Throughout this designation, when selecting areas of critical habitat, we made an effort to avoid developed areas, such as housing developments, that are unlikely to contribute to the conservation of the Central population. However, we did not map critical habitat in sufficient detail to exclude all developed areas, or other lands unlikely to contain the primary constituent elements. Areas within the boundaries of the mapped units, such as buildings, roads, parking lots, railroads, airport runways and other paved areas, lawns, and other urban landscaped areas will not contain any of the primary constituent elements and thus do not constitute critical habitat. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect the species and/or the primary constituent elements in adjacent critical habitat.

After identifying the primary constituent elements, we used the constituent elements in combination with information on CTS locations, geographic distribution, genetics,



vegetation, topography, geology, soils, distribution of CTS occurrences within and between vernal pool types, watersheds, current land uses, scientific information on the biology and ecology of the CTS, and conservation principles to identify essential habitat. As a result of this process, each of the proposed critical habitat units possesses a unique combination of occupied aquatic and upland habitat types, landscape features, surrounding land uses, vernal pool types, ponds, topography, and representation of geographical range, environmental variability, and genetic composition.

We determined that conserving the CTS over the long-term requires a five-pronged approach: (1) Maintaining the current genetic structure across the species range; (2) maintaining the current geographic, elevational, and ecological distribution; (3) protecting the hydrology and water quality of breeding pools and ponds; (4) retaining or providing for connectivity between breeding locations for genetic exchange and recolonization; and (5) protecting sufficient barrier-free upland habitat around each breeding location to allow for sufficient survival and recruitment to maintain a breeding population over the long term.

To identify areas which are essential to the conservation of the Central population in accordance with these criteria, we first identified areas within the range where we had documented records (*e.g.*, museum voucher specimens, reports filed by biologists) indicating California tiger salamander presence (CNDDDB 2003). We determined that essential habitat should represent the current genetic structure of the CTS. Genetic variation is important to fitness and adaptive change (Meffe and Carroll 1997). These authors state that losses of diversity can result in reduced evolutionary flexibility and declines in fitness, and that changes in the distribution of genetic diversity can destroy local adaptations and break up co-adapted gene complexes. Accordingly, we divided the current range of the Central population into four regions: (1) Central Valley, (2) Southern San Joaquin Valley, (3) East Bay, and (4) Central Coast. We further determined that essential habitat should represent the current geographic and elevational range of the species, as well as the range of habitat and environmental variability or other unique situations within each of the four regions. Conservation of the range of habitat types in which a species occurs helps maintain local adaptations that are important for the long-term viability of a species (Fugate 1992, King 1996, Fugate 1998). A fundamental

concept in conservation biology is that species that are protected across their ranges have lower chances of extinction (Soule and Simberloff 1986, Noss *et al.* 2002). To represent this environmental variation, we selected areas with the highest density of Central population locations, the highest proximity to other Central population occurrences, known association of the occurrence with aquatic breeding habitat such as vernal pools or stockponds, and the least amount of habitat disturbance within each of the four regions.

Finally, we also determined that essential habitat should be of sufficient size to provide enough suitable habitat to maintain ecological functions in both aquatic and terrestrial habitat and to allow for movement within and between breeding locations within each unit when possible. This would enable Central population from other locations to "rescue" sites which may have low numbers as a result of natural or human factors. To determine a general guideline for the amount of upland habitat necessary to support a population of adult CTS, we reviewed the primary literature regarding California tiger salamander upland habitat use, including Trenham (2000), Trenham *et al.* (2000 and 2001), and Trenham and Shaffer (in review).

Data indicate that California tiger salamanders do not remain primarily in burrows close to aquatic habitats and breeding ponds, but instead move some distance out into the surrounding upland landscapes. As described in the Background section, California tiger salamanders have been found up to 1.2 mi (2 km) from occupied occurrences. 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 1,300 ft (400 m) from this high-quality breeding pond.

Recent trapping efforts captured large numbers (representing 16 percent of total captures) of juvenile salamanders at 2,300 ft (700 m). Trenham and Shaffer (in review) 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. Protecting the needed upland habitat

area with a radius of 2,200 ft (670 m) around a single pond that has a 13 ft (10 m) radius may yield a minimum area of 350 ac (140 ha). However, the size of any occurrence or breeding pond may increase the total amount of necessary aquatic and upland habitat space for survival of any known occurrence.

We used 0.7 mi (1.13 km) as a guide for mapping the amount of upland habitat around locations where Central population is present. However, although the studies discussed above provide an approximation of the distances that California tiger salamanders can move from their aquatic habitats, breeding ponds, and known occupied aquatic habitats in search of suitable upland refugia, we recognize that upland habitat features will influence California tiger salamander movements in a particular landscape. As a result, we made adjustments to the upland areas to include additional areas up to the watershed boundaries or to include habitat containing the PCEs. In some cases we reduced the areas to exclude non-habitat areas (those not exhibiting the PCEs) from the designation.

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 CTS, only the San Joaquin County Multi-Species HCP is a legally operating HCP that has identified the California tiger salamander as a covered species.

We are aware of five HCPs under various stages of development; however, we are not proposing these draft HCPs for exclusion because we have not yet made an initial determination that they meet our issuance criteria, provide adequate conservation for the species, and are ready for public notice and comment.

In summary, we propose critical habitat throughout the current range of the CTS because we believe protection of the areas is essential to the conservation of the species, and these areas may require special management.

We then mapped as critical habitat sufficient habitat to ensure the conservation of the CTS in accordance with the five elements of the conservation strategy described above.

#### **Special Management Considerations or Protections**

When designating critical habitat, we assess whether the areas determined to be essential for conservation may require special management considerations or protections. 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 Central population may depend upon habitat components beyond the immediate areas where individuals of the species occur, if these areas support the presence of small mammals or are essential in maintaining ecological processes such as hydrology, expansion of distribution, recolonization, and maintenance of natural predator-prey relationships. We believe that the areas

proposed for critical habitat may require special management considerations or protections due to the threats outlined below:

(1) Activities that introduce or promote the occurrence of bullfrogs and fish can be significant threats to Central population breeding ponds.

(2) Activities that could disturb aquatic breeding habitats during the breeding season.

(3) Activities that impair the water quality of aquatic breeding habitat.

(4) Activities that would reduce small mammal populations to the point that there is insufficient underground Central population refugia used for foraging, protection from predators, and shelter from the elements.

(5) Activities that create barriers impassable for salamanders or road crossings that increase mortality in upland habitat between extant occurrences in breeding habitat.

(6) Activities on adjacent uplands that disrupt vernal pool complexes' ability to support CTS breeding function.

(7) Activities that introduce non-native tiger salamanders in areas where CTS is threatened by hybridization.

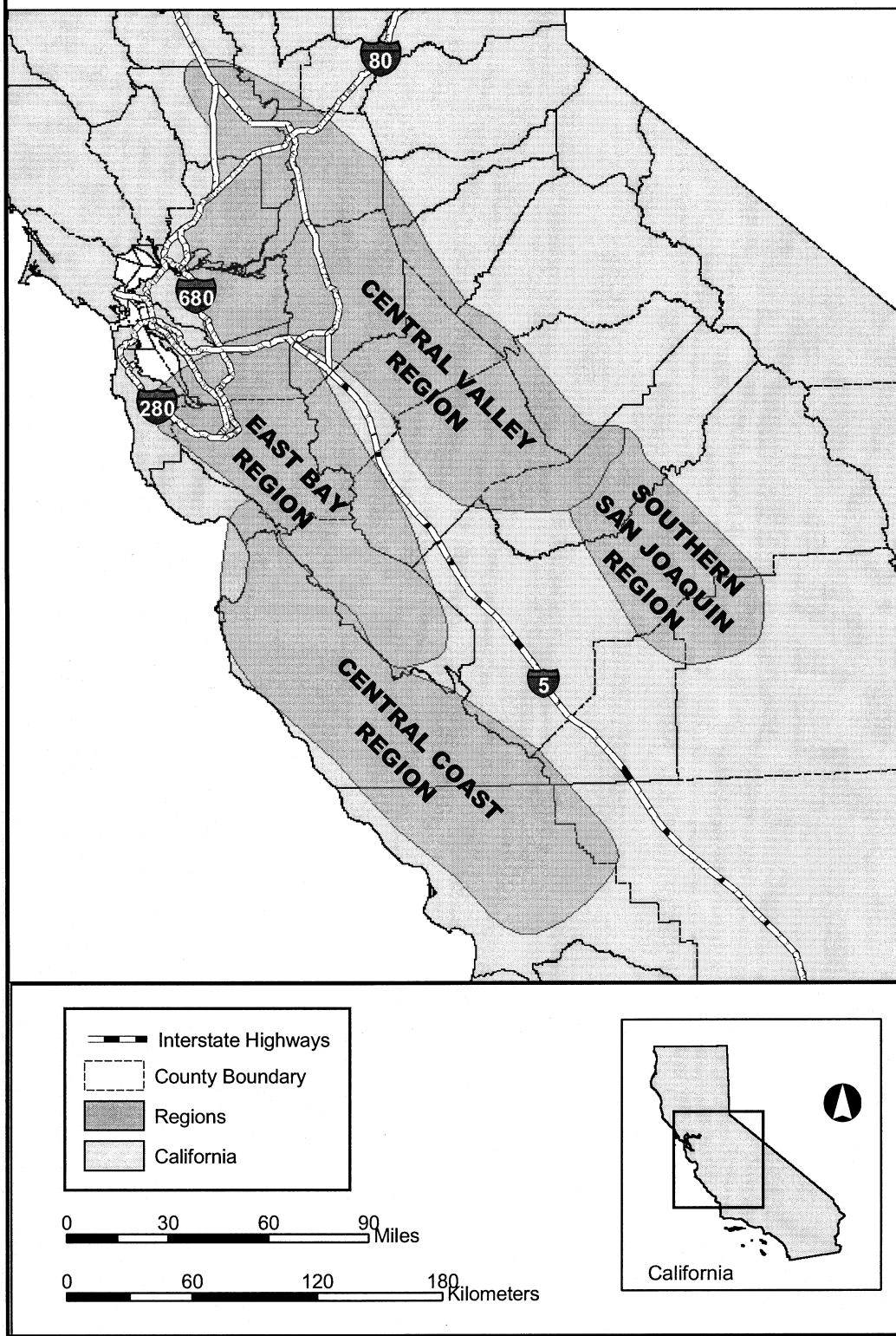
#### **Proposed Critical Habitat Designation**

We are proposing critical habitat for the Central population throughout four geographic regions. The proposed critical habitat units described below constitute our best assessment at this time of the areas essential for the conservation of the Central population. The regions are: (1) Central Valley Region, (2) Southern San Joaquin Valley Region, (3) the East Bay Region, and (4) the Central Coast Region. The maps in this proposed rule present a pictorial representation of the four regions and are not accurate with regard to the dividing line between the Central Coast and Central Valley regions in Alameda County. The maps in the rule portion of this document begin with Map 7 and run consecutively because they follow Maps 1–6 in the proposed critical habitat rule for the Santa Barbara population of the California tiger salamander already published in the **Federal Register** (69 FR 3064, January 22, 2004). We will continue to refine these maps as we acquire more refined or smaller scale mapping information.

**BILLING CODE 4310–55–P**

# Central California Tiger Salamander Regions

Figure 1



We are proposing 47 units as critical habitat for the Central population. Federal lands within the San Francisco Bay National Wildlife Refuge, the San Luis National Wildlife Refuge Complex, and Fort Hunter Liggett are included in proposed critical habitat units.

Additionally, we have proposed critical habitat on lands within East Bay Regional County Park. Although some Federal, State, or local government lands occur within the boundaries of proposed critical habitat, the majority of the areas proposed for critical habitat

designation occur on privately owned land. The approximate area encompassed within each proposed critical habitat unit and associated land ownership are shown in Table 1.

TABLE 1.—APPROXIMATE SIZES AND LAND OWNERSHIP OF PROPOSED CRITICAL HABITAT UNITS BY GEOGRAPHIC REGION

Geographic region/proposed unit	Federal lands		State lands		Other lands		Total	
	ac	ha	ac	ha	ac	ha	ac	ha
<b>Central Valley</b>								
Unit 1 .....	0		0		3,789	1,533	3,789	1,533
Unit 2 .....	0		7	3	5,937	2,403	5,944	2,406
Unit 3 .....	0		0		10,191	4,124	10,191	4,124
Unit 4 .....	0		0		9,603	3,886	9,603	3,886
Unit 5 .....	0		0		3,128	1,266	3,128	1,266
Unit 6 .....	0		0		32,443	13,129	32,443	13,129
Unit 7 .....	0		0		1,010	409	1,010	409
Unit 8 .....	17	7	0		6,053	2,450	6,070	2,457
Unit 9 .....	0		0		17,799	7,203	17,799	7,203
Unit 10 .....	0		0		10,585	4,283	10,585	4,283
Unit 11 .....	0		0		8,291	3,355	8,291	3,355
Unit 12 .....	9,330	3,776	1,564	633	130	52	11,024	4,461
Unit 13 .....	3,406	1,378	0		2,356	953	5,762	2,332
Unit 14 .....	1,540	623	0		4,355	1,762	5,895	2,386
Unit 15 .....	0		0		7,353	2,976	7,353	2,976
Unit 16 .....	0		21	8	13,481	5,455	13,502	5,464
Unit 17 .....	0		824	333	27,108	10,970	27,932	11,304
Unit 18 .....	415	168	0		8,400	3,400	8,815	3,568
Area Total .....	14,708	5,952	2,416	978	172,013	69,611	189,137	76,541
<b>Southern San Joaquin Valley Region</b>								
Unit 1 .....	0		0		9,122	3,692	9,122	3,692
Unit 2 .....	0		0		10,193	4,125	10,193	4,125
Unit 3 .....	0		0		7,924	3,207	7,924	3,207
Unit 4 .....	0		415	168	0	0	415	168
Unit 5A .....	0		4,342	1,757	0	0	4,342	1,757
Unit 5B .....	0		629	255	0	0	629	255
Area Total .....	0		5,386	2,180	27,239	11,023	32,625	13,203
<b>East Bay Region</b>								
Unit 1 .....	0		0		5,267	2,132	5,267	2,132
Unit 2 .....	0		0		2,600	1,052	2,600	1,052
Unit 3 .....	0		0		39,778	16,098	39,778	16,098
Unit 4 .....	691	280	0		382	155	1,073	434
Unit 5 .....	0		0		2,814	1,139	2,814	1,139
Unit 6 .....	0		2,767	1,120	5,209	2,108	7,976	3,228
Unit 7 .....	0		0		9,080	3,675	9,080	3,675
Unit 8 .....	0		0		4,016	1,625	4,016	1,625
Unit 9 .....	0		0		2,934	1,187	2,934	1,187
Unit 10 .....	0		0		1,851	749	1,851	749
Unit 11 .....	0		6,583	2,664	408	165	6,991	2,829
Unit 12 .....	0		0		6,754	2,733	6,754	2,733
Unit 13 .....	0		0		2,409	975	2,409	975
Unit 14 .....	0		0		2,212	895	2,212	895
Unit 15 .....	0		0		3,165	1,281	3,165	1,281
Unit 16 .....	0		0		16,952	6,860	16,952	6,860
Area Total .....	691	280	9,350	3,784	105,831	42,828	115,872	42,892
<b>Central Coast Region</b>								
Unit 1 .....	0		0		4,341	1,757	4,341	1,757
Unit 2 .....	8,200	3,318	0		0	0	8,200	3,318
Unit 3 .....	18	7	110	45	3,537	1,431	3,665	1,483
Unit 4 .....	20	8	0		3,881	1,571	3,901	1,579
Unit 5A .....	9,942	4,024	0		0	0	9,942	4,024

TABLE 1.—APPROXIMATE SIZES AND LAND OWNERSHIP OF PROPOSED CRITICAL HABITAT UNITS BY GEOGRAPHIC REGION—Continued

Geographic region/proposed unit	Federal lands		State lands		Other lands		Total	
	ac	ha	ac	ha	ac	ha	ac	ha
Unit 5B .....	5,453	2,207	0	.....	297	120	5,750	2,327
Unit 6 .....	0	.....	0	.....	9,233	3,736	9,233	3,736
Area total .....	23,633	9,564	110	45	21,288	8,615	45,032	18,224
Grand totals .....	39,032	15,796	17,262	6,986	326,371	132,078	382,666	154,860

The critical habitat we are proposing for the Central population represents occupied aquatic and upland habitats throughout the species' range. Brief descriptions of the proposed critical habitat units are presented below. To the best of our knowledge, each unit contains essential aquatic, upland, and dispersal habitats.

We believe the critical habitat units proposed below are essential to the conservation of the CTS because each represents a unique combination of aspects of geographic and ecological distribution and genetic diversity that meet the criteria described above for identifying essential habitat. Each of the proposed critical habitat units contains one or more of the PCEs and may

require one or more of the special management considerations or protections described above.

*Central Valley Region*

The Central Valley region generally includes an area from northern Yolo County south and southeast to the northern half of Madera County, and includes eastern Solano and Contra Costa counties. Within this region, we are proposing 18 critical habitat units that total approximately 189,137 ac (76,541 ha). The 18 proposed critical habitat units contain approximately 192 extant occurrences of the CTS. The 18 proposed units occur in 4 of 17 vernal pool regions within California: the Solano-Colusa, Southeastern

Sacramento Valley, Southern Sierra Foothills, and San Joaquin Valley. The units are distributed across the geographic extent of the region and represent the varying habitats and environmental conditions available for CTS in the Central Valley region. By including units across the geographic range of the species within this region we are conserving the diversity of the species and its habitat across its range. The approximately 192 extant occurrences of CTS within the Central Valley region represent some of the highest density and best remaining habitat for the species. Table 2 illustrates the acreage proposed as critical habitat within the Central Valley region by county.

TABLE 2.—AREA OF PROPOSED CRITICAL HABITAT WITHIN THE CENTRAL VALLEY REGION BY COUNTY

County	Acres	Hectares	Unit number
Yolo .....	3,789	1,533	1
Solano .....	5,944	2,406	2
Sacramento .....	10,191	4,124	3
San Joaquin .....	21,120	8,547	4,6
Amador .....	1,506	610	4
Calaveras .....	4,944	2,001	5,6
Stanislaus .....	24,406	9,877	6-8
Merced .....	45,127	18,262	8-10,12-13
Madera .....	8,291	3,355	11
Mariposa .....	321	130	10
Contra Costa .....	43,232	17,496	14-18
Alameda .....	20,266	8,201	17-18
Total .....	189,137	76,541	

Unit 1, Dunnigan Creek Unit, Yolo County (3,789 ac (1,533 ha))

This proposed unit is the only unit in Yolo County and represents the northern part of the geographic distribution of CTS in the Central Valley region. This proposed unit contains a cluster of four CTS occurrences located in a vernal pool complex in the northern end of the Solano-Colusa vernal pool region. It is roughly bordered by Interstate 5 on the east, Bird Creek on the south, Buckeye Creek on the north and west. Land ownership is private.

Unit 2, Jepson Prairie Unit, Solano County (5,944 ac (2,406 ha))

This proposed unit represents the northwest distribution of the CTS within the Central Valley region within the southern end of Solano-Colusa vernal pool region in Solano County. This proposed unit contains four extant occurrences of the CTS. It is generally located south of Dixon, west of State Route 113, north of Creed Road, and east of Travis Air Force Base. This unit is mostly privately owned, but contains

a small amount of California Department of Fish and Game lands.

Unit 3, Southeastern Sacramento Unit, Sacramento County (10,191 ac (4,124 ha))

This proposed unit is only one of three proposed units representing the Southeastern Sacramento Valley vernal pool region and is found at the southern end of that region. It contains eight occurrences of CTS. This proposed unit is generally bordered on the south by the Sacramento and San Joaquin County line, Laguna Creek on the north, the

Sacramento and Amador County line on the east, and Alta Mesa Road on the west. Land ownership is private.

Unit 4, Northeastern San Joaquin Unit, San Joaquin and Amador Counties (9,603 ac (3,886 ha))

This proposed unit is the only one in San Joaquin and Amador counties. It contains five extant occurrences of the CTS within a vernal pool complex in the Southeastern Sacramento Valley vernal pool region. This proposed unit is roughly located south of the San Joaquin and Sacramento County line, east of Day Creek Road, north of Liberty Road, and west of Comanche and Jackson Valley Roads. Land ownership is private.

Unit 5, Indian Creek Unit, Calaveras County (3,128 ac (1,266 ha))

This proposed unit represents the northeastern range of the species in the Central Valley region within the Southeastern Sacramento Valley vernal pool region. It contains four occurrences of CTS. This unit is roughly bordered by State Route 26 on the south and east, Warren Road on the west, and State Route 12 on the north. Land ownership is private.

Unit 6, Rock Creek Unit, Calaveras, San Joaquin, and Stanislaus Counties (32,443 ac (13,129 ha))

This proposed unit represents an essential part of the San Joaquin Valley's eastern distribution of the species. This proposed unit contains five extant occurrences of the CTS in a vernal pool complex representing the northern end of the Southern Sierra Foothills vernal pool region. It is located approximately west of San Joaquin County Road J6, north of Sonora Road, east of Stanislaus County Road J12, and south of the Calaveras River. Land ownership is private.

Unit 7, Rodden Lake Unit, Stanislaus County (1,010 ac (409 ha))

This proposed unit contains three occurrences of CTS in vernal pool complexes in the center portion of the species range within the Central Valley region. This proposed unit is located at the northern end of the Southern Sierra Foothill vernal pool region and is the only proposed unit near the Stanislaus River. It is roughly bounded by Horseshoe Road on the east, Frankheimer Road on the north, Twenty Eight Mile Road on the west, and the Stanislaus River on the south. Land ownership is private.

Unit 8, La Grange Ridge Unit, Stanislaus and Merced Counties (6,070 ac (2,457 ha))

This proposed unit is representative of the vernal pool complexes that occur within the center of the Central Valley region. It contains five extant occurrences of the CTS within the northeastern Southern Sierra Foothills vernal pool region. This proposed unit is roughly located east of Cardoza Ridge, west of Los Cerritos Road, south of State Route 132, and north of Fields Road. Land ownership is private.

Unit 9, Fahrens Creek Unit, Merced County (17,799 ac (7,203 ha))

This proposed unit represents the center of the range of the species within the Central Valley region and contains 20 extant occurrences of the CTS. This proposed unit is one of two representing the South Sierra Foothills vernal pool region in Merced County. This area is located generally northeast from Merced, east of the Merced and Mariposa county dividing line, north of Bear Creek and south of the Merced River. Land ownership is private.

Unit 10, Miles Creek Unit, Merced County (10,585 ac (4,283 ha))

This proposed unit represents the southern end of the Central Valley region and contains nine extant occurrences of the CTS. This proposed unit is the only other unit that occurs on the Southern Sierra Foothill vernal pool region in Merced County. It occurs mostly in Merced County and has a small portion in adjacent Mariposa County. This proposed unit is located generally east of Owens Lake in Mariposa County, west of Cunningham Road in Merced County, south of South Bear Creek Road in Merced County, and north of Childs Avenue. Land ownership is private.

Unit 11, Rabbit Hill Unit, Madera County (8,291 ac (3,355 ha))

This proposed unit represents the southern extent of the CTS in the Central Valley region in the Sierra Foothills vernal pool region in Madera County. It contains six extant occurrences of the CTS. This proposed unit is generally located west of Hensley Lake, south of Knowles Junction, west of the Daulton Mine, and north of the Fresno River. Land ownership is private.

Unit 12, San Luis Island Unit, Merced County (11,024 ac (4,461 ha))

This proposed unit represents the southwestern edge of the valley floor of the Central Valley region and contains six extant occurrences of the CTS. This

proposed unit is one of two proposed units representing the San Joaquin Valley vernal pool region. It is located west of State Route 165, south of State Route 140, east of Santa Fe Grade Road, and north of Buttonwillow Lakes. This proposed unit occurs primarily on Federal lands of the San Luis National Wildlife Refuge Complex, but also includes some State and private lands.

Unit 13, Sandy Mush Unit, Merced County (5,762 ac (2,332 ha))

This proposed unit represents the very southwestern distribution of the species within the Central Valley region and contains five extant occurrences of the CTS. This is only one of two proposed units in the San Joaquin Valley vernal pool region. This proposed unit generally is located west of State Route 59, north of Chamberlain Road, east of the San Joaquin River, and south of Ventura Road. Land ownership is Federal (San Luis National Wildlife Refuge Complex) and private.

Unit 14, Mulligan Hill Unit, Contra Costa County (5,895 ac (2,386 ha))

This proposed unit represents the western portion of the Central Valley region and the Livermore vernal pool region in Contra Costa County. This proposed unit is bordered on the north by State Route 4, Concord on the west, Kirker Pass Road to the south, the City of Pittsburg to the east. The Department of Defense, Concord Naval Weapons Station, owns part of this proposed unit, and the other part is privately owned.

Unit 15, Deer Valley Unit, Contra Costa County (7,353 ac (2,976 ha))

This proposed unit contains ten extant occurrences of the CTS and represents the southwestern part of Central Valley region and the Livermore vernal pool region in Contra Costa County. It is roughly bounded by Mount Diablo to the west, Antioch to the north, Deer Valley to the south, and Lone Tree Valley to the east. Land ownership is Contra Costa County parks and private.

Unit 16, Marsh Creek Unit, Contra Costa County (13,502 ac (5,464 ha))

This proposed unit contains 25 extant occurrences of the CTS and represents the southwestern portion of the Central Valley region in the Livermore vernal pool region within Contra Costa County. This proposed unit is roughly bounded by Curry Canyon on the west, Deer Valley on the north, Round Valley on the south, and Marsh Creek Reservoir on the east. Land ownership is mostly private but includes a small amount of State land.

Unit 17, Benthany Reservoir Unit, Alameda and Contra Costa Counties (27,932 ac (11,304 ha))

This proposed unit contains 50 extant occurrences of the CTS and represents the southwestern portion of the Central Valley region in the Livermore vernal pool region within Contra Costa County. It contains the highest density of CTS extant occurrences among all proposed units and represents a significant portion of the species' habitat and range. This unit is generally bounded by Interstate Freeway 580 on the south, Clifton Court Forebay on the east, the City of Bryon on the north, and Brushy Peak on the west. Land ownership is mostly private, with some State lands as well.

Unit 18, Doolan Canyon Unit, Alameda and Contra Costa Counties (8,815 ac (3,568 ha))

This proposed unit contains 12 extant occurrences of the CTS and represents the very southwestern portion of the Central Valley region within the Livermore vernal pool region. This proposed unit is generally bounded by Tassajara on the north, Collier Canyon Road on the east and the south, and the City of Dublin on the west. Land ownership is mostly private, but it also includes some Federal lands.

*Southern San Joaquin Valley Region*

The Southern San Joaquin Valley region includes the southern half of Madera County south to northeastern Kings County and northwestern Tulare County. Within this region, we propose

six critical habitat units for the California tiger salamander that total approximately 32,625 ac (13,203 ha). The six proposed critical habitat units encompass approximately 33 extant occurrences of the CTS and represent the San Joaquin Valley and Southern Sierra Foothills vernal pool regions. The units are distributed across the geographic extent of the region and represent the varying habitats and environmental conditions available for CTS in the Southern San Joaquin Valley region. By including units across the geographic range of the species within this region, we are conserving the diversity of the species and its habitat across its range. Table 3 illustrates the acreage proposed as critical habitat within the Southern San Joaquin Valley region by County.

TABLE 3.—AREA OF PROPOSED CRITICAL HABITAT UNITS WITHIN THE SOUTHERN SAN JOAQUIN VALLEY REGION BY COUNTY

County	Acres	Hectares	Unit number
Madera .....	9,122	3,692	1
Fresno .....	16,375	6,627	2,3
Kings .....	885	358	5
Tulare .....	6,243	2,526	3–5
Total .....	32,625	13,203	

Unit 1, Millerton Unit, Madera County (9,122 ac (3,692 ha))

This proposed unit represents the only extant occurrences of the California tiger salamander on the northern end of the Southern San Joaquin Valley region and contains 11 extant occurrences of the CTS. This proposed unit occurs within the Southern Sierra Foothills vernal pool region, one of two vernal pool regions in the Southern San Joaquin Valley region. This proposed unit is located west of State Highway 41 and generally north of the San Joaquin River. The eastern boundary is approximately the western side of Millerton Lake and the northern boundary is approximately that are near Indian Springs and Millers Corner. Land ownership is private.

Unit 2, Northeast Fresno, Fresno County (10,193 ac (4,125 ha))

This unit represents the distribution of CTS in the northern end of the Southern San Joaquin Valley region and the Southern Sierra Foothills vernal pool region. It contains ten extant occurrences of the CTS. This proposed unit is located northeast of Fresno, southwest of Millerton Lake, east of Friant Road and generally west of Academy. Land ownership is private.

Unit 3, Hills Valley Unit, Fresno and Tulare counties (7,924 ac (3,207 ha))

This proposed unit represents the southern portion of the distribution of CTS within the Southern San Joaquin Valley region and the Southern Sierra Foothills vernal pool region. It contains five extant occurrences of the CTS. This proposed unit is located in Fresno County and extends just into the northwest corner of Tulare County, south of State Highway 180, generally west of George Smith and San Creek Roads, north of Curtis Mountain, and east of Cove Road. This proposed unit is the northernmost one of its kind in Tulare County and is the only one located in the foothills of Tulare County. Land ownership is private.

Unit 4, Seville Unit, Tulare County (415 ac (168 ha))

This proposed unit represents an extant occurrence of CTS in a vernal pool complex, a rarity in the lower elevations in the San Joaquin Valley where the majority of historic vernal pool habitat has been converted to intensive agricultural uses. Although small in size, it represents an essential part of the southern extent of the genetic and geographical range of the species. This proposed unit occurs within the

Southern Sierra Foothills vernal pool region. It is located just west of Seville on either side of State Route 201, east of State Route 63, south of Stokes Mountain, and north of Ivanhoe. Land ownership is private.

Unit 5A and 5B, Cottonwood Creek Unit, Tulare and Kings counties (4,971 ac (2,011 ha))

Unit 5A represents a significant area at the very southern extension of the range of the CTS. This proposed unit contains four extant occurrences and is located in a low-elevation vernal pool complex within the San Joaquin Valley vernal pool region. It is roughly bordered by County Road J36 on the north, Dinuba Road on the east, Avenue 352 on the south, and County Road 112 on the west. Land ownership is State. Unit 5A is 4,342 ac (1,757 ha) in size.

Unit 5B represents an important low-elevation component of the southernmost range extension of the species in the Southern San Joaquin Valley region. This proposed unit contains two extant occurrences of the CTS in the area of Cottonwood Creek in vernal pool complexes of the San Joaquin Valley vernal pool region. It is located north of Goshen, south of Traver, west of Calgro, and east of

Hamlin. Land ownership is State. Unit 5B is 629 ac (254 ha) in size.

*East Bay Region*

The East Bay region generally includes the area from Alameda County south to Santa Benito and Santa Clara counties, and western Merced County. The East Bay region has approximately 115,872 ac (46,892 ha) of proposed

critical habitat. Within this geographical area, we have identified 16 proposed critical habitat units for the CTS that contain approximately 132 extant occurrences. The East Bay region contains the Livermore, Central Coast, and San Joaquin Valley vernal pool regions. The units are distributed across the geographic extent of the region and represent the varying habitats and

environmental conditions available for CTS in the East Bay region. By including units across the geographic range of the species within this region, we are conserving the diversity of the species and its habitat across its range. Table 4 illustrates the acreage proposed as critical habitat within the East Bay region by county.

TABLE 4.—AREA OF PROPOSED CRITICAL HABITAT WITHIN THE EAST BAY REGION BY COUNTY

County	Acres	Hectares	Unit number
Alameda .....	47,333	19,155	1–4
Santa Clara .....	42,751	17,301	3
San Benito .....	21,167	8,566	12,15–16
Merced .....	4,621	1,870	13–14
Total .....	115,872	46,892	

Unit 1, Patterson Unit, Alameda County (5,267 ac (2,132 ha))

This proposed unit represents the northernmost CTS occurrences in the Bay Area region and the northern end of the Livermore vernal pool region. It contains seven extant occurrences of the CTS and is one of four proposed units within Alameda County. This proposed unit lies south of Interstate 580, east of the City of Midway, north of Patterson Pass Road, and west of Flynn Road. Land ownership is private.

Unit 2, Mendenhall Unit, Alameda County (2,600 ac (1,052 ha))

This proposed unit represents a portion of the northeastern range of the CTS within the Bay Area region and the northern end of the Livermore vernal pool region. It contains seven extant occurrences in northern Alameda County. This proposed unit is generally located south of Tesla Road, east of Crane Ridge, and north and west of Lake Del Valle. Land ownership is private.

Unit 3, Alameda Creek Unit, Alameda and Santa Clara Counties (39,778 ac (16,098 ha))

This proposed unit represents the north central part of the Bay Area region and the northwestern Livermore vernal pool region. It contains 47 extant occurrences of the CTS. This proposed unit is generally located north of Calaveras Reservoir, east of Sugar Butte, west of Fremont, and south of Livermore. Land ownership is a mixture of county parks and private lands.

Unit 4, San Francisco Bay Unit, Alameda County (1,073 ac (434 ha))

This proposed unit represents the only CTS occurrences in the northwest portion of the Bay Area region and

contains four extant occurrences in the Livermore vernal pool region. This proposed unit is generally located north of Coyote Creek, west of Interstate 880, south of Newark, and east of San Francisco Bay. Most of this proposed unit is on Federal lands of the San Francisco Bay National Wildlife Refuge, but also includes some private land.

Unit 5, Poverty Ridge Unit, Santa Clara County (2,814 ac (1,139 ha))

This proposed unit represents the north central portion of the Bay Area region in the southern end Livermore vernal pool region and contains six extant occurrences of the CTS. It is generally located west of Alum Rock, south of Alameda and Contra Costa county line, west of Kincaid Road, and north of Master Hill. Land ownership is private.

Unit 6, Smith Creek Unit, Santa Clara County (7,976 ac (3,228 ha))

This proposed unit represents the north central part of the range of CTS within the Bay Area region and the northern Central Coast vernal pool region. It contains four extant occurrences of the CTS. This proposed unit is generally located west of Sugarloaf Mountain, south of Packard Ridge, east of Masters Hill, and north of Panochita Hill. This proposed unit contains University of California, county, and private lands.

Unit 7, San Felipe Creek Unit, Santa Clara County (9,080 ac (3,675 ha))

This proposed unit represents the central portion of the distribution of CTS within the Bay Area region and the north central portion of the Central Coast vernal pool region. It contains four extant occurrences of the species. This proposed unit is generally located

west of Silver Creek, south of Panochita Hill, east of Bollinger Mountain, and north of Morgan Hill. Land ownership is private.

Unit 8, Laurel Hill Unit, Santa Clara County (4,016 ac (1,625 ha))

This proposed unit represents the northwestern portion of the distribution of CTS in the Bay Area region and the northwestern portion of the Central Coast vernal pool region. It contains 10 extant occurrences of the species and is one of two proposed units on the western side of the Santa Clara Valley. This proposed unit is generally located east of Morgan Hill, south of San Jose, west of the Santa Cruz Mountains, and north of Croy Ridge. Land ownership is private.

Unit 9, Cebata Flat Unit, Santa Clara County (2,934 ac (1,187 ha))

This proposed unit represents CTS in the central portions of the Bay Area region and the Central Coast vernal pool region. It contains three extant occurrences of the CTS. This proposed unit is generally located west of Gilroy, south of Henry Coe State Park, east of Lake Mountain, and north of Canada Road. Land ownership is private.

Unit 10, Lions Peak Unit, Santa Clara County (1,851 ac (749 ha))

This proposed unit represents only the second proposed unit on the west side of the Santa Clara Valley within the central portions of the Bay Area region and the Central Coast vernal pool region. It contains six extant occurrences of the CTS. This proposed unit is generally found east of State Highway 101, south of Morgan Hill, north of Hecker Pass Highway, and west of Uvas Reservoir. Land ownership is private.



Unit 11, Braen Canyon Unit, Santa Clara County (6,991 ac (2,829 ha))

This proposed unit represents the distribution of CTS within the eastern central portion of the Bay Area region and the central portion of the Central Coast vernal pool region. It contains five extant occurrences of the CTS in southern Santa Clara County. This proposed unit is generally found west of Gilroy, south of Kelly Lake, east of Pacheco Lake, and north of Jamison Road. Land ownership is State and private.

Unit 12, San Felipe Unit, Santa Clara and San Benito Counties (6,754 ac (2,733 ha))

This proposed unit represents the distribution of CTS within the central portions of the Bay Area region and Central Coast vernal pool region. It contains 10 extant occurrences of the CTS in southern Santa Clara County and northern San Benito County. This proposed unit is generally found east of Carnadero Creek, south of Kickham Peak, west of San Joaquin Peak, and north of Dunneville. Land ownership is private.

Unit 13, Los Banos Unit, Merced County (2,409 (975 ha))

This proposed unit represents a portion of the southeastern distribution of CTS within the Bay Area region and the San Joaquin Valley vernal pool

region. It contains three extant occurrences of the CTS in Merced County. This proposed unit is generally located east of Los Banos Reservoir, north of Bullard Mountain, west of Cathedral Peak, and south of San Luis Reservoir State Recreation Area. Land ownership is private.

Unit 14, Landgon Unit, Merced County (2,212 ac (895 ha))

This proposed unit represents the eastern distribution of the CTS within the Bay Area region within the San Joaquin Valley vernal pool region. It contains three extant occurrences of the CTS in Merced County. This proposed unit is generally found west of Sweeney Hill, south of Gasten Bide Road, west of Interstate 5, and north of Ortigalita Peak. Land ownership is private.

Unit 15, Ana Creek Unit, San Benito County (3,165 ac (1,281 ha))

This proposed unit represents the distribution of CTS in the southwestern portion of the Bay Area region within the Central Coast vernal pool region. It contains nine extant occurrences of the CTS. This proposed unit is generally located east of Hollister, north of Tres Pinos, west of Cibo Peak, and south of Coyote Peak. Land ownership is private.

Unit 16, Bitterwater Unit, San Benito County (16,952 ac (6,860 ha))

This proposed unit represents the southern distribution of CTS within the

Bay Area region within the southern portion of the Central Coast vernal pool region. It contains nine extant occurrences of the species. This proposed unit is generally found south of Pinnacles, west of Hernandez Reservoir, north of Lonoak, and east of Murphy Flat. Land ownership is private.

*Central Coast Region*

The Central Coast includes the area from Monterey County to northeastern San Luis Obispo County and northwestern Tulare County. The Central Coast region contains seven proposed critical habitat units that total approximately 45,034 ac (18,225 ha). These proposed critical habitat units contain approximately 50 extant occurrences of California tiger salamander within the Central Coast, Livermore, and Carrizo vernal pool regions. The units are distributed across the geographic extent of the region and represent the varying habitats and environmental conditions available for CTS in the Central Coast region. By including units across the geographic range of the species within this region, we are conserving the diversity of the species and its habitat across its range. Table 5 illustrates the acreage proposed as critical habitat within the Central Coast region by County.

TABLE 5.—ACREAGE OF PROPOSED CRITICAL HABITAT WITHIN THE CENTRAL COAST REGION BY COUNTY

County	Acres	Hectares	Unit Number
Monterey .....	32,392	13,109	1-5
San Benito .....	3,408	1,379	4
San Luis Obispo .....	7,736	3,131	6
Kern .....	1,496	605	6
Total .....	45,032	18,224	

Unit 1, Crazy Horse Canyon Unit, Monterey County (4,341 ac (1,757 ha))

This proposed unit represents the distribution of CTS within the northern portion of the Central Coast region and the northwestern portion of the Central Coast vernal pool region. It contains five extant occurrences of the CTS. This proposed unit is generally located north of Salinas, west of Castroville, south of Echo Valley Road, and east of Hollister. Land ownership is private.

Unit 2, Elliott Hill Unit, Monterey County (8,200 ac (3,318 ha))

This proposed unit represents the distribution of the CTS in the northwestern portions of the Central

Coast region and the Central Coast vernal pool region. It contains 16 extant occurrences of the CTS. This proposed unit is generally located south of Salinas, east of Seaside, and northwest of State Route 68. All of this unit is on the former Department of Defense Fort Ord Military Reservation, now partially managed by the Bureau of Land Management. Land ownership is Federal.

Unit 3, Haystack Hill Unit, Monterey County (3,665 ac (1,483 ha))

This proposed unit represents the center portion of the Central Coast region within the northwestern portion of the Central Coast vernal pool region.

It contains ten extant occurrences of the Central population. This proposed unit is generally located along Carmel Valley Road, west of Paloma Ridge, east of Jamesberg, and south of Carmel Valley. Land ownership within this proposed unit is a mixture of Federal (BLM), State (Hastings Natural History State Reserve), and private.

Unit 4, Gloria Valley Unit, Monterey and San Benito Counties (3,901 ac (1,579 ha))

This proposed unit represents the distribution of CTS within the northeastern portion of the Central Coast region within the western portion of the Central Coast vernal pool region.

It contains 10 extant occurrences of the Central population. This proposed unit is generally located north of Soledad, west of the Pinnacles National Monument, south of Tres Pinos, and east of Gonzales. Land ownership of this proposed unit is mostly private but includes a small amount of federal (BLM) land.

Units 5A and 5B, Fort Hunter Liggett Unit, Monterey County (15,692 ac) (6,351 ha)

Units 5A and 5B represent the distribution of CTS in the southwestern portion of the Central Coast region within the southern portion of the Central Coast vernal pool region. They contain 15 extant occurrences of the CTS. Units 5A and 5B are generally located on the west and east sides of the San Antonio River Valley, north of Bryson, and south of King City. Land ownership is Federal (Department of Defense, Fort Hunter Liggett Military Reservation) and private. Unit 5A is 9,942 ac (4,024 ha) in size, and Unit 5B is 5,750 ac (2,327 ha) in size.

Unit 6, Choice Valley, Kern and San Luis Obispo Counties (9,233 ac) (3,736 ha)

This proposed unit represents the southernmost extension of CTS within the Central Coast region and is the only unit within the Carrizo vernal pool region. The unit contains four extant occurrences of the CTS. This proposed unit is generally located north of the Carrisa Highway, east of Antelope Valley, south of Cottonwood, and west of Shandon. Land ownership is private.

### Effects of Critical Habitat Designation

#### Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out 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 nonfederal 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 nonfederal 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.

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 CTS 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 of Engineers 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;

(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; and

(8) Land management and land use actions funded, carried out, or permitted by the Bureau of Land Management.

All lands proposed for designation as critical habitat are within the geographic area occupied by the species, and are likely to be used by the CTS, 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*

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 not to 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; and (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 sections 3(5)(A) and 4(b)(2) of the Act. Potential areas which we are considering to exclude based on section 4(b)(2) of the Act include: areas on Fort Hunter Liggett and the Concord Naval Weapons Station and lands within any other DOD facilities; lands within Fish and Wildlife National Wildlife Refuges that have completed CCPs or have concluded intra-Service section 7 consultation for the species; lands within State Wildlife Areas or Ecological Reserves that have developed and implemented management plans for the species; and lands covered under any legally

operating NCCP/HCP where the California tiger salamander is a covered species. The San Luis National Wildlife Refuge Complex (SLNWR) (units 12 and 13 in the Central Valley Region) and the Don Edwards San Francisco Bay National Wildlife Refuge (SFBNWR) (Unit 4 in the East Bay Region) have areas that are included in the proposed designation. The SLNWR is scheduled to start development of a CCP in 2005, and the SFBNWR is scheduled to start the CCP process in 2008.

In addition, we are also considering exclusion of private lands being managed for the long-term conservation of the California tiger salamander through agreements or other mechanisms; municipal water district lands or other local government lands that develop management plans for the long-term conservation of the species; other State or private easement lands that develop management plans which ensure the conservation of the California tiger salamander.

This proposed rule includes two proposed critical habitat units at Fort Hunter Liggett. Fort Hunter Liggett does not have a signed INRMP that affords effective conservation for the CTS and has no approved management plan for the species. During the proposal period, we hope to work with private landowners on developing conservation agreements that would protect the extant occurrences of the species. We are aware of the landowner concerns that this proposal has on the ranching community and look forward to receiving more current information from ranchers and other landowners to improve and refine our proposed critical habitat units. If we can complete conservation agreements with ranch landowners and other interested landowners, we may exclude lands covered by conservation agreements from the final critical habitat designation for the CTS.

*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 CTS

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. We will reopen the comment period and accept comments from the public about the economic impacts from the proposed critical habitat and any other comments from landowners and the public. At that time, copies of the draft economic analysis will be available for downloading from the Internet at <http://sacramento.fws.gov>, or by contacting the Sacramento 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](mailto:Exsec@ios.doi.gov).

#### Required Determinations

##### *Regulatory Planning and Review*

Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule. Office of Management and Budget makes the final determination of significance 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 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;
- (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; and
- (8) Land management and land use actions funded, carried out, or permitted by the Bureau of Land Management.

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.

At this time, the Service lacks the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, the RFA finding is deferred until completion of the draft economic analysis prepared pursuant to section 4(b)(2) of the ESA and E.O. 12866. This draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, the Service will publish a notice of availability of the draft economic analysis of the proposed designation and reopen the public comment period for the proposed designation for an additional 60 days. The Service will include with the notice of availability, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination. The Service has concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that the Service makes a sufficiently informed determination based on adequate economic information and provides the necessary opportunity for public comment.

To determine if the rule would affect a substantial number of small entities, we consider the number of small

entities affected within particular types of economic activities (e.g., housing development, grazing, 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 consider whether their activities have any Federal involvement; some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. 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 Central population was proposed as a threatened species on May 23, 2003 (68 FR 28648), we have conferenced with Federal agencies and applicants, or are in the process of conferencing, on 25 projects within the range of the Central population. Seventeen of these conferences are being conducted in accordance with the procedures for formal consultation in accordance with 50 CFR 402.10. The remaining eight have been informal. These conferences have concerned activities such as by developers, municipalities, businesses, and others. Formal and informal conferences regarding the Central population usually result in recommendations to avoid or minimize incidental take and offset permanent loss of habitat. In reviewing these conferences 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. However, as a result of not having the economic analysis completed on the proposed designation of critical habitat for the CTS, we will not make a determination or certify that the action will not have a significant economic impact on a substantial number of small entities, and an initial regulatory flexibility analysis is not required until the completion of a draft economic analysis.

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 CTS 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), the Service makes the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding" and the State, local, or tribal governments "lack authority" to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption

Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.) "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, or permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments. Given the distribution of this species, small governments will not be uniquely affected by this proposed rule. Small governments will not be affected at all unless they propose an action requiring Federal funds, permits, or other authorization. Any such activity will require that the involved Federal agency ensure that the action is not likely to adversely modify or destroy designated critical habitat. However, as discussed above, Federal agencies are currently required to ensure that any such activity is not likely to jeopardize the species, and no further regulatory impacts from the designation of critical habitat are anticipated. Because we believe this rule will not significantly or uniquely affect small governments, a Small Government Agency Plan is not required. We will, however, further evaluate this issue as we conduct our economic analysis and revise this assessment if appropriate.

#### *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 CTS. 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 CTS.

*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 CTS 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 proposed determination does not constitute a major Federal action significantly affecting the quality of the human environment.

*Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal

Governments" (59 FR 22951), Executive Order 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. We have determined that there are no tribal lands essential for the conservation of the Central California population of the California tiger salamander. Therefore, proposed designation of critical habitat for the Central California population of 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, SFWO (see **ADDRESSES** section).

**Author(s)**

The primary author of this package is the Sacramento 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. The entry for "Salamander, California tiger" in the table in § 17.11(h), which was proposed to be revised on May 23, 2003, at 68 FR 28647, and again on January 22, 2004, at 69 FR 3064, is proposed to be further revised 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.	<i>Ambystoma californiense</i> .	U.S.A. (CA) .....	U.S.A. (CA) .....	T	677E, 702, 744	17.95(d)	17.43(c)

3. Critical habitat for the California tiger salamander (*Ambystoma californiense*) in § 17.95(d), which was proposed to be revised on January 22, 2004, at 69 FR 3064, is proposed to be further amended by revising the heading and adding paragraphs (11) through (62) as follows:

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

\* \* \* \* \*

(d) *Amphibians.*

\* \* \* \* \*

**California Tiger Salamander**  
(*Ambystoma californiense*)

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

\* \* \* \* \*

Central Population of the California Tiger Salamander (*Ambystoma californiense*)

(11) Critical habitat units are depicted for the Central California population, California, on the maps below.

(12) The primary constituent elements (PCEs) of critical habitat for the Central population of the California tiger salamander (CTS) are the habitat components that provide:

(i) Standing bodies of fresh water, including natural and man-made (e.g., stock) ponds, vernal pools, vernal pool complexes, 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 extant occurrence locations that contain small mammal burrows, including but not limited to burrows created by the California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys 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 extant occurrence locations (paragraphs 1 and 12(i) for this proposed designation) and areas with small mammal burrows (paragraphs 2 and 12(ii) for this proposed designation) that allow for dispersal among such sites.

(iv) The geographic, topographic, and edaphic features that support

aggregations or systems of hydrologically interconnected pools, swales, and other ephemeral wetlands and depressions within a matrix of surrounding uplands that together form hydrologically and ecologically functional units called vernal pool complexes. These features contribute to the filling and drying of the vernal pool, maintain suitable periods of pool inundation for larval salamanders and their food sources, and providing breeding, feeding, and sheltering habitat for juvenile and adult salamanders and small mammals that create burrow systems essential for CTS estivation.

(13) 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.

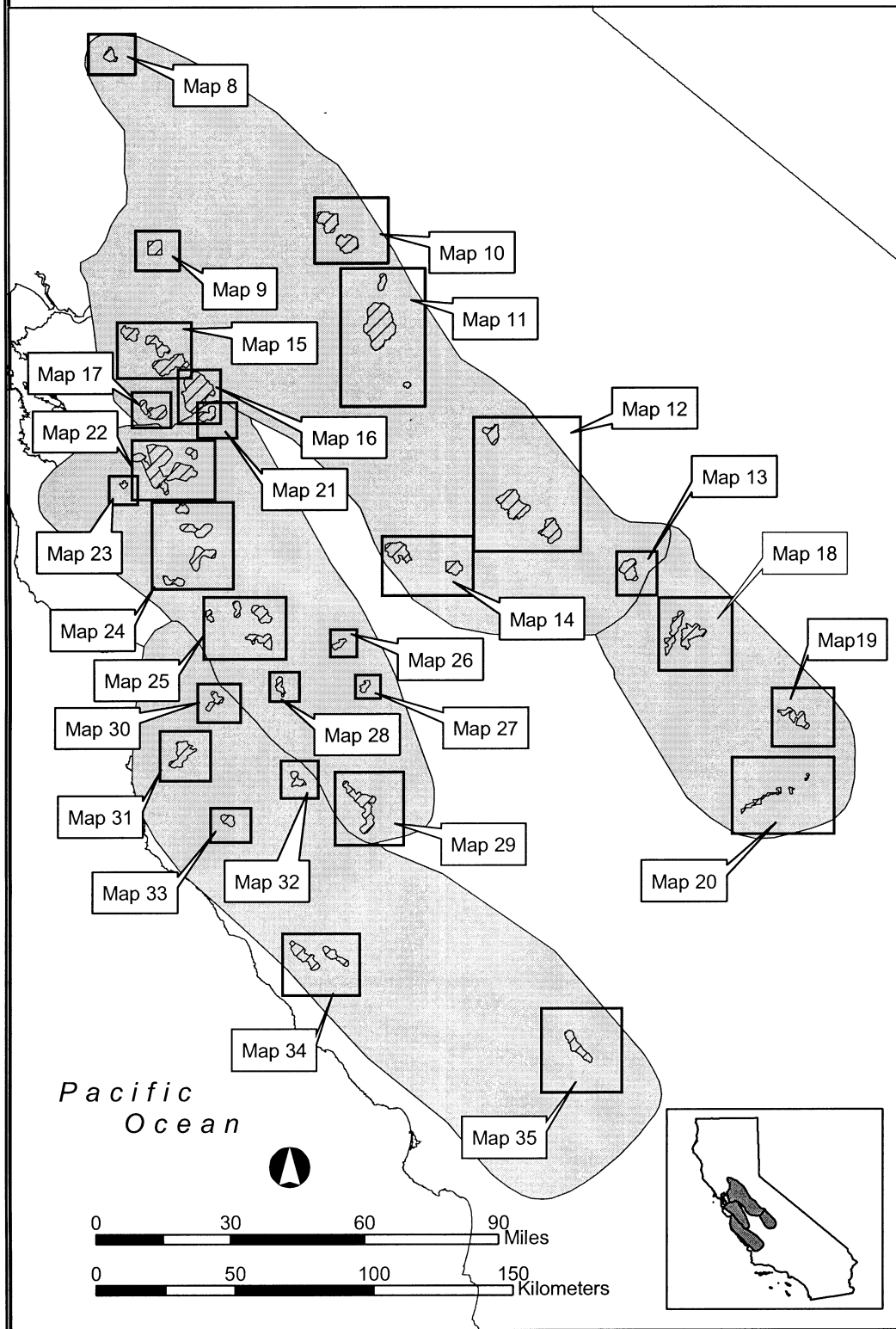
(14) Critical Habitat Map Units. Data layers defining map units were created on a base of USGS 7.5' quadrangles, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(15) **Note:** Map 7 (Index map) follows:

**BILLING CODE 4310-55-P**

# Central California Tiger Salamander Index

## Map 7





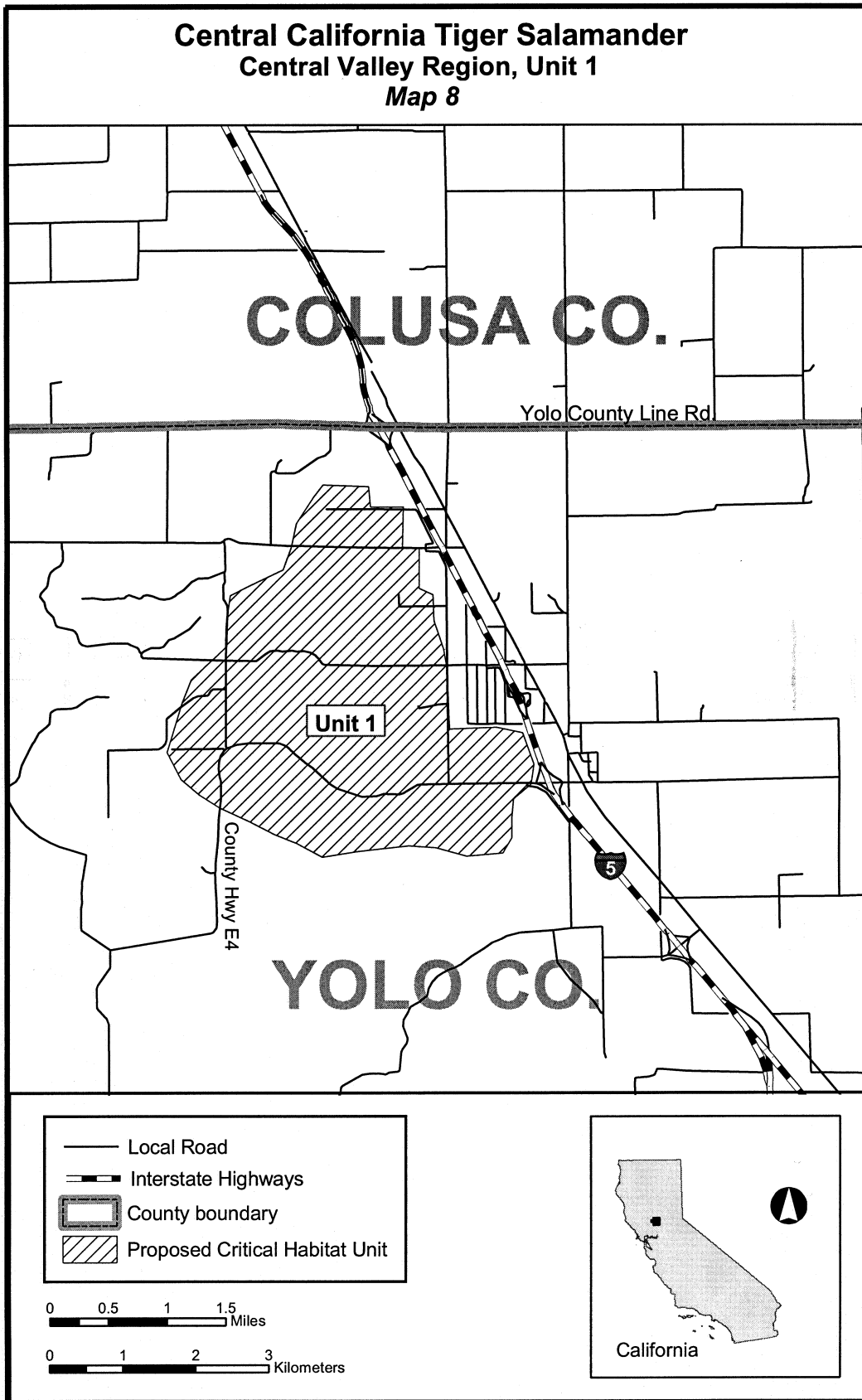
(16) Central Valley Region: Unit 1  
Dunnigan Creek, Yolo County,  
California.

(i) From USGS 1:24,000 quadrangle  
maps Wildwood School, Dunnigan, Bird  
Valley, and Zamora, California, land  
bounded by the following UTM 10 NAD  
27 coordinates (E, N): 586003, 4302921;  
585645, 4303113; 585350, 4303228;  
585005, 4303407; 584595, 4303599;  
584326, 4303766; 584070, 4303983;  
583878, 4304355; 584083, 4305033;

584211, 4305341; 584416, 4305533;  
584698, 4305801; 584710, 4306249;  
584749, 4306493; 585018, 4306634;  
585184, 4306710; 585466, 4306851;  
585581, 4307158; 585645, 4307479;  
585875, 4307837; 586016, 4308016;  
586631, 4307991; 586656, 4307709;  
586708, 4307709; 587104, 4307709;  
587092, 4307158; 587322, 4307146;  
587322, 4306595; 587514, 4306506;  
587527, 4306147; 587655, 4305763;  
587706, 4305494; 587706, 4305367;

587719, 4305161; 587732, 4304816;  
587745, 4304675; 588385, 4304700;  
588743, 4304624; 588897, 4304188;  
588858, 4303920; 588615, 4303715;  
588590, 4303459; 588590, 4303177;  
588474, 4302972; 587975, 4302934;  
587553, 4303049; 587181, 4303074;  
586503, 4302998; returning to 586003,  
4302921.

(ii) **Note:** Unit 1 (Map 8) follows:



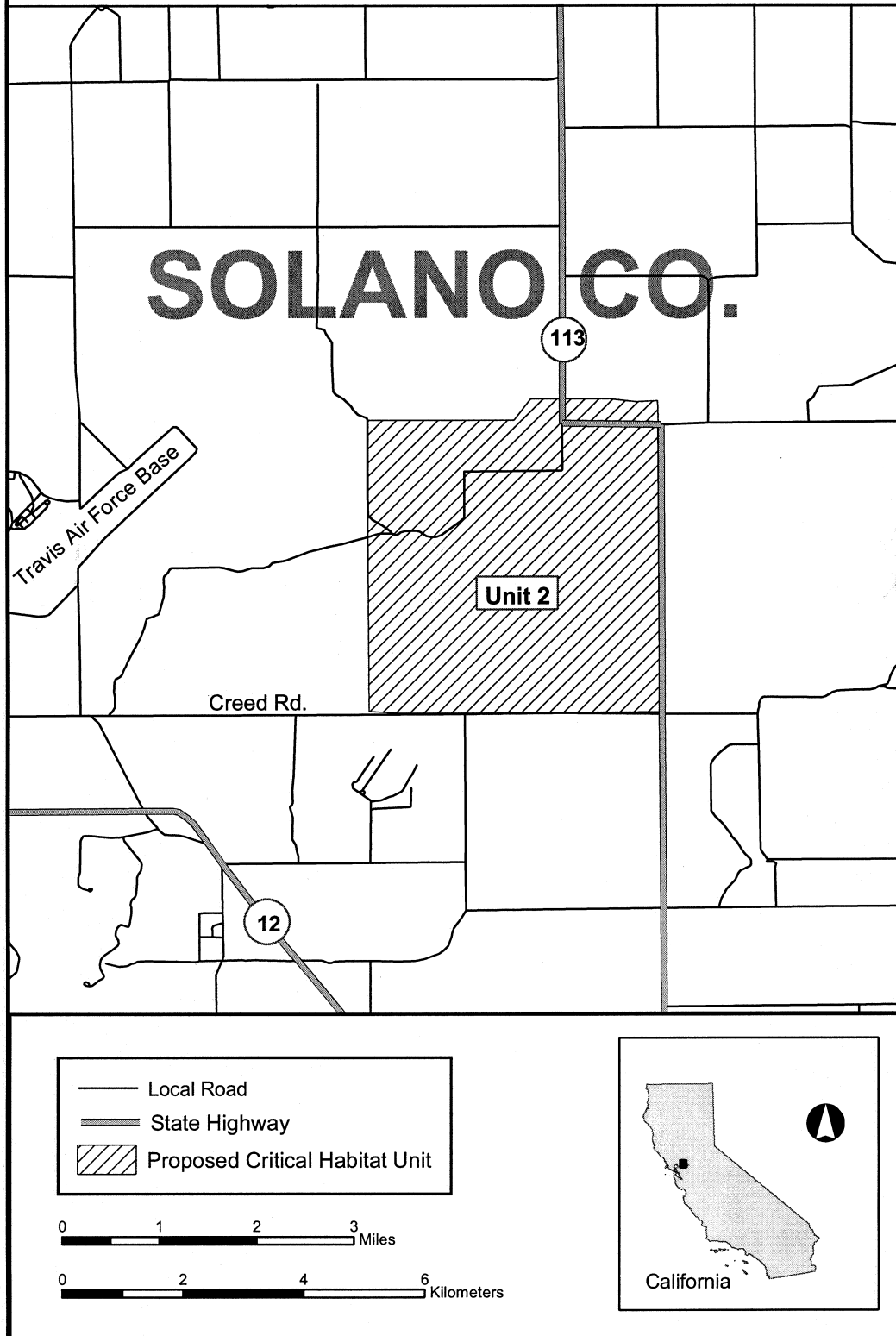
(17) Central Valley Region: Unit 2  
Jepson Prairie, Solano County,  
California.

(i) From USGS 1:24,000 quadrangle  
maps Dozier, and Birds Landing,

California, land bounded by the  
following UTM 10 NAD 27 coordinates  
(E, N): 601770, 4233158; 600257,  
4233158; 599795, 4233190; 599763,  
4238001; 602200, 4238001; 602471,

4238352; 602917, 4238352; 603762,  
4238352; 604208, 4238304; 604558,  
4238320; 604606, 4236854; 604590,  
4233174; returning to 601770, 4233158.  
(ii) **Note:** Unit 2 (Map 9) follows:

### Central California Tiger Salamander Central Valley Region, Unit 2 Map 9



(18) Central Valley Region: Unit 3 Southeastern Sacramento, Sacramento County, California.

(i) From USGS 1:24,000 quadrangle maps Clay, and Goose Creek, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 663886, 4240775; 663342, 4241904; 663245, 4242127; 662980, 4242741; 663412, 4243117; 663398, 4243563; 663147, 4243702; 662729, 4243758; 662659, 4243925; 662659, 4244469; 662464, 4244483; 661809, 4244511; 660721, 4244427; 660721, 4244609; 660819, 4244818; 660610, 4244985; 660596, 4245417; 660610, 4245724; 660749, 4246142; 661056, 4246477; 661167, 4246853; 660875, 4246951; 660791, 4247174; 660889, 4247536; 661000, 4248024; 661307, 4248331; 661725, 4248526; 664917, 4248540; 665001, 4248359; 664931, 4247843; 665768, 4247815; 668124, 4247885; 668068, 4246281; 668110, 4245347; 668166, 4244330; 668193, 4243898; 667831, 4243758; 667538, 4243563; 667273, 4243228; 667022, 4242671; 667078, 4242392; 666981, 4242127; 666813,

4241820; 666702, 4241472; 666312, 4241165; 665740, 4240998; 665433, 4241012; 665043, 4241054; 664862, 4240928; 664457, 4240942; 664220, 4240914; returning to 663886, 4240775.

(ii) **Note:** Unit 3 is depicted on Map 10—Units 3 and 4—see paragraph (19)(ii).

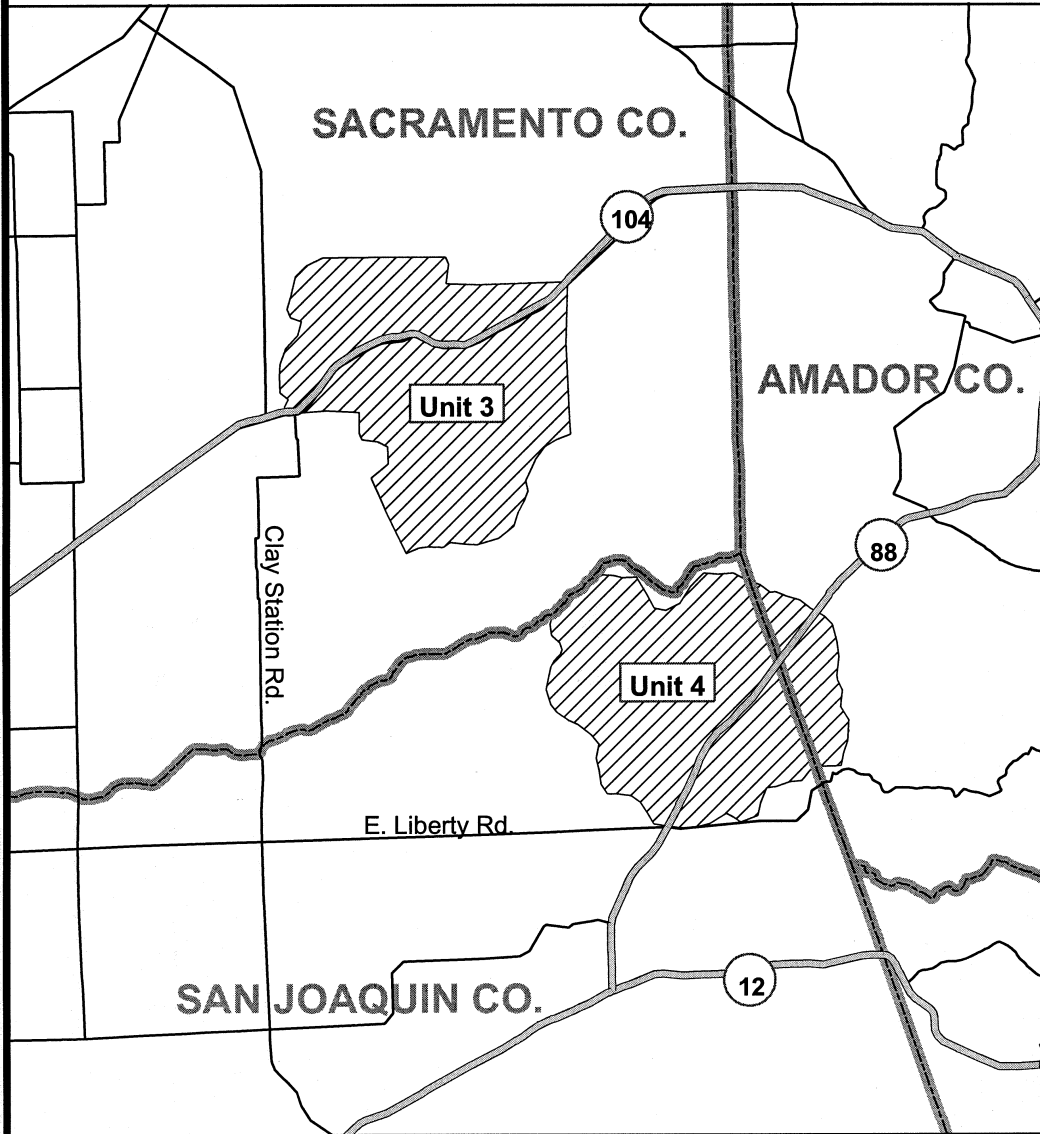
(19) Central Valley Region: Unit 4 Northeastern San Joaquin, San Joaquin and Amador Counties, California.

(i) From USGS 1:24,000 quadrangle maps Goose Creek, Ione, Clements, and Wallace, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 671353, 4233578; 671001, 4233601; 670683, 4233635; 670342, 4233703; 670194, 4233964; 670001, 4234259; 669751, 4234441; 669388, 4234487; 669150, 4234487; 668979, 4234736; 668911, 4235100; 668843, 4235406; 668911, 4235781; 668718, 4236031; 668377, 4236304; 668116, 4236417; 667832, 4236610; 667662, 4236826; 667548, 4237212; 667662, 4237780; 667753, 4237939; 667912, 4238132; 667957, 4238246; 667900, 4238428; 667684, 4238632;

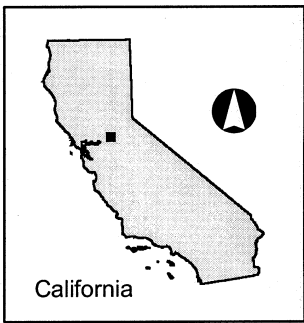
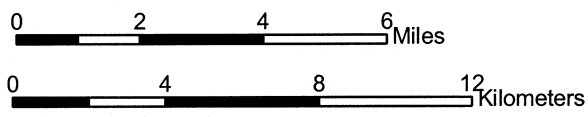
667650, 4238916; 667718, 4239143; 668105, 4239404; 668298, 4239631; 668593, 4239938; 669036, 4240199; 669297, 4240177; 669536, 4240131; 669899, 4240142; 670160, 4239711; 670365, 4239325; 670660, 4239268; 671023, 4239461; 671307, 4239904; 671659, 4240233; 672011, 4240211; 672409, 4240233; 672750, 4240074; 673113, 4239938; 673386, 4239745; 673533, 4239756; 673795, 4239643; 674158, 4239541; 674476, 4239302; 674794, 4239109; 675021, 4238893; 675135, 4238450; 675180, 4238053; 675135, 4237576; 675146, 4237462; 675271, 4237201; 675226, 4236758; 675441, 4236417; 675419, 4235849; 675294, 4235543; 675248, 4235213; 674749, 4235202; 674442, 4235100; 674215, 4234827; 673908, 4234793; 673545, 4234668; 673284, 4234646; 673136, 4234259; 673056, 4233919; 672602, 4233748; 672409, 4233873; 672250, 4233964; 671818, 4233714; returning to 671353, 4233578.

(ii) **Note:** Unit 4 is depicted on Map 10—Units 3 and 4—which follows:

### Central California Tiger Salamander Central Valley Region, Units 3, 4 Map 10



- Local Road
- State Highway
- ▭ County Boundary
- ▨ Critical Habitat Unit



(20) Central Valley Region: Unit 5  
Indian Creek, Calaveras County,  
California.

(i) From USGS 1:24,000 quadrangle  
maps Wallace, and Valley Springs SW,  
California, land bounded by the  
following UTM 10 NAD 27 coordinates  
(E, N): 683054, 4220003; 682668,  
4220324; 682556, 4220468; 682412,  
4220918; 682412, 4221303; 682444,  
4221576; 682604, 4221929; 682684,  
4222299; 683070, 4222780; 683439,  
4223149; 683375, 4223567; 683471,  
4223872; 683439, 4224305; 683278,  
4224594; 683182, 4225156; 683311,  
4225461; 683551, 4225798; 683728,  
4225975; 684049, 4226087; 684210,  
4226216; 684563, 4226216; 684900,  
4226071; 685253, 4225830; 685430,  
4225301; 685446, 4224787; 685430,  
4224353; 685606, 4223920; 685590,  
4223487; 685478, 4223101; 685269,  
4222780; 685125, 4222523; 684948,  
4222010; 684868, 4221705; 684739,  
4221287; 684627, 4220789; 684402,  
4220468; 684017, 4220195; 683664,  
4220067; returning to 683054, 4220003.

(ii) **Note:** Unit 5 is depicted on Map  
11—Units 5, 6, and 7—see paragraph  
(22)(ii).

(21) Central Valley Region: Unit 6  
Rock Creek, San Joaquin and Stanislaus  
Counties, California.

(i) From USGS 1:24,000 quadrangle  
maps Valley Springs SW, Jenny Lind,

Farmington, and Bachelor Valley,  
California, land bounded by the  
following UTM 10 NAD 27 coordinates  
(E, N): 681566, 4198308; 680965,  
4198663; 680692, 4199127; 680228,  
4199591; 679873, 4200083; 679873,  
4200820; 680173, 4201476; 679928,  
4202186; 679764, 4202514; 679600,  
4203142; 679627, 4203634; 679245,  
4203852; 678726, 4204016; 678316,  
4204453; 677907, 4204781; 677442,  
4205300; 677360, 4205873; 677360,  
4206638; 677579, 4207621; 678425,  
4207949; 678699, 4208113; 678780,  
4208905; 678917, 4209287; 678890,  
4209670; 678944, 4211062; 678808,  
4211663; 678726, 4212810; 678890,  
4213275; 679463, 4213958; 679846,  
4214340; 680392, 4214859; 680747,  
4215323; 681320, 4215596; 682031,  
4215596; 682795, 4215378; 683205,  
4215378; 684516, 4215460; 684953,  
4215105; 685335, 4214777; 685800,  
4214340; 686482, 4214012; 686510,  
4213193; 686455, 4212838; 687083,  
4212100; 687575, 4211363; 687411,  
4210762; 687875, 4209560; 687739,  
4208932; 687821, 4208386; 688230,  
4208113; 688640, 4207594; 688940,  
4207102; 688667, 4206228; 688640,  
4205518; 688804, 4205081; 688394,  
4204125; 687466, 4203634; 687193,  
4203142; 687111, 4202842; 686837,  
4202459; 686127, 4202268; 685308,  
4201940; 685062, 4202077; 684789,

4200902; 684707, 4200356; 684461,  
4199837; 683806, 4199482; 683260,  
4198909; 682659, 4198636; 682222,  
4198472; returning to 681566, 4198308.

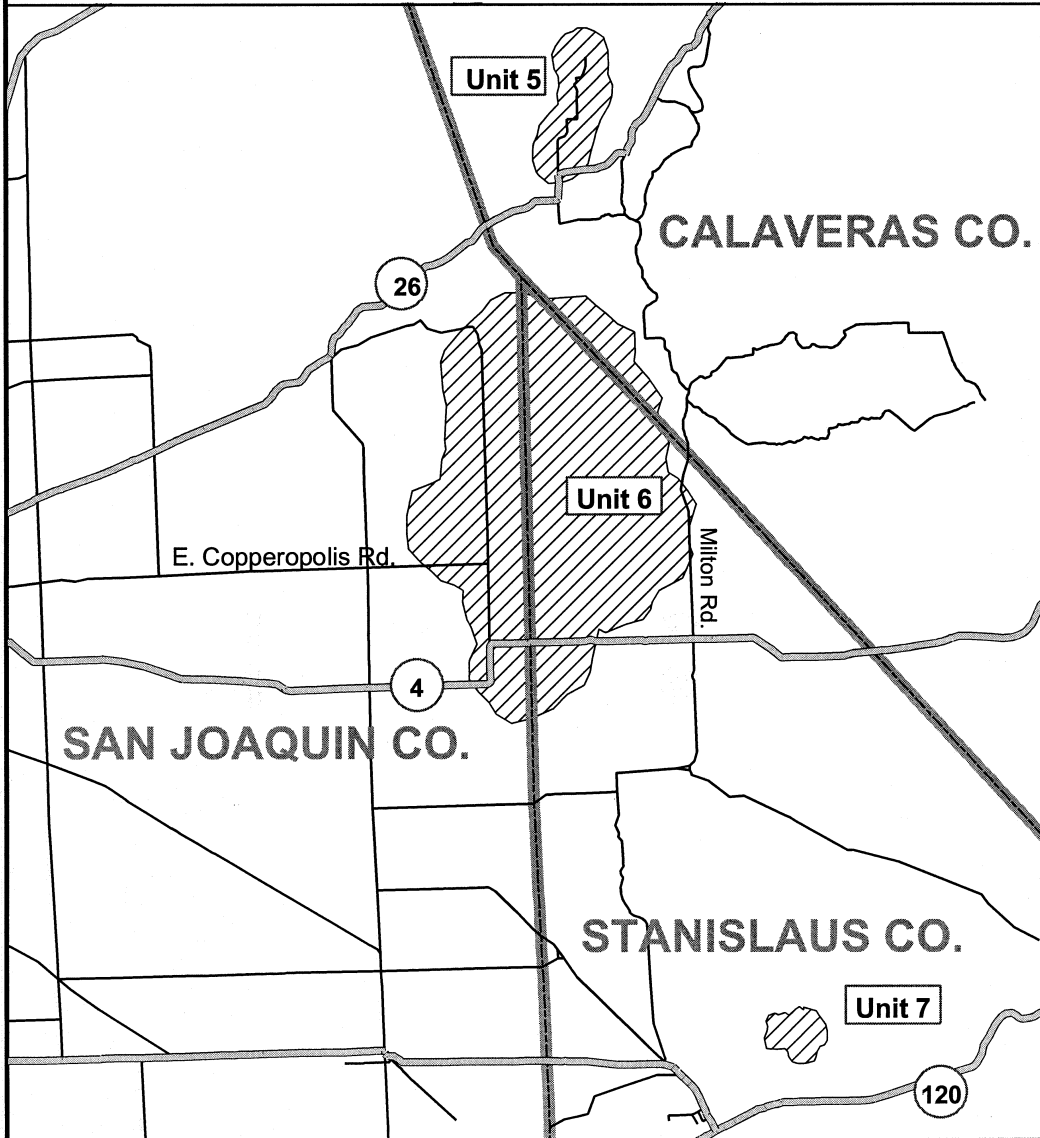
(ii) **Note:** Unit 6 is depicted on Map  
11—Units 5, 6, and 7—see paragraph  
(22)(ii).





(22) Central Valley Region: Unit 7  
Rodden Lake, Stanislaus County,  
California.

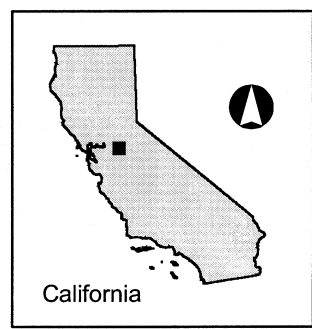
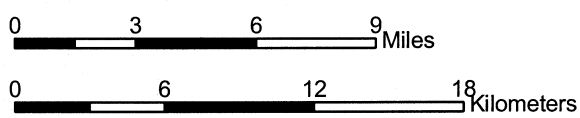
(i) From USGS 1:24,000 quadrangle  
map Oakdale, California, land bounded  
by the following UTM 10 NAD 27  
coordinates (E, N): 693312, 4184635;  
692994, 4184635; 692787, 4184709;  
692631, 4184909; 692602, 4185101;  
692498, 4185235; 692180, 4185212;  
691751, 4185227; 691662, 4185649;  
691736, 4185812; 691773, 4185960;  
691788, 4186137; 691736, 4186330;  
691847, 4186566; 692084, 4186648;  
692246, 4186596; 692498, 4186685;  
692646, 4186574; 692809, 4186707;  
692942, 4186825; 693075, 4186914;  
693245, 4186781; 693238, 4186892;  
693489, 4186833; 693756, 4186744;  
693889, 4186544; 694118, 4186211;  
694185, 4185900; 694200, 4185560;  
694089, 4185383; 693904, 4185309;  
693778, 4185094; 693734, 4184872;  
693652, 4184731; returning to 693312,  
4184635.

(ii) **Note:** Unit 7 is depicted on Map  
11—Units 5, 6, and 7—which follows:

### Central California Tiger Salamander Central Valley Region, Units 5, 6, 7 Map 11



-  Local Roads
-  Highway
-  County Boundary
-  Critical Habitat Unit





(23) Central Valley Region: Unit 8 La Grange Ridge, Stanislaus and Merced Counties, California.

(i) From USGS 1:24,000 quadrangle maps Cooperstown, La Grange, and Snelling, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 724228, 4164088; 723854, 4164088; 723334, 4164436; 722666, 4165570; 722346, 4166171; 721865, 4167305; 721612, 4167719; 721612, 4168080; 721171, 4168120; 720584, 4168346; 720277, 4168694; 720130, 4169121; 720183, 4169534; 720317, 4170002; 720664, 4170282; 721131, 4170389; 721598, 4170269; 722359, 4169788; 722599, 4169855; 722800, 4170082; 723120, 4170122; 723614, 4170335; 723988, 4170402; 724295, 4170869; 724388, 4171043; 724361, 4171417; 724642, 4171363; 724922, 4171243; 725336, 4171363; 725589, 4171417; 725696, 4170629; 725469, 4170122; 725656, 4169508; 725469, 4168654; 725683, 4168293; 725883, 4167199; 725296, 4165276; 725189, 4164743; 724562, 4164142; returning to 724228, 4164088.

(ii) **Note:** Unit 8 is depicted on Map 12—Units 8, 9, and 10—see paragraph (25)(ii).

(24) Central Valley Region: Unit 9 Fahrens Creek, Merced County, California.

(i) From USGS 1:24,000 quadrangle maps Yosemite lake, Haystack Mtn, Merced, and Planada, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 731225, 4136887; 731000, 4137153; 730733, 4137502; 730406, 4137461; 729996, 4137522; 729689, 4137563; 729504, 4137932; 729463, 4138137; 729177, 4138321; 729320, 4138587; 729627, 4138813; 729607, 4139120; 729299, 4139222; 728992, 4139325; 729525, 4140083; 729320, 4140472; 728992, 4140738;

728787, 4140697; 728378, 4140513; 728214, 4140472; 728009, 4140533; 727825, 4140881; 727702, 4140881; 727538, 4140984; 727333, 4141086; 726944, 4141107; 726821, 4141250; 726739, 4141557; 726821, 4141742; 726657, 4142459; 726657, 4142643; 726534, 4142786; 726268, 4142889; 725756, 4142909; 725571, 4142991; 725694, 4143217; 725571, 4143626; 725428, 4143770; 725182, 4143831; 725039, 4143954; 724998, 4144282; 725162, 4144753; 725551, 4145040; 726063, 4145203; 726288, 4145326; 726575, 4145695; 727026, 4145900; 727476, 4145941; 727825, 4146289; 728275, 4146678; 728726, 4147068; 728992, 4147395; 729484, 4147600; 729996, 4147621; 730488, 4147662; 731041, 4147907; 731573, 4147825; 732106, 4147518; 732393, 4147088; 732434, 4146719; 732720, 4146330; 733130, 4145961; 733355, 4145695; 733355, 4145081; 733212, 4144589; 733458, 4144015; 733703, 4143606; 733949, 4143319; 734216, 4143094; 734646, 4142786; 735465, 4142602; 736284, 4142397; 736715, 4142274; 737206, 4141783; 737206, 4141025; 736981, 4140410; 736674, 4140124; 735875, 4139673; 735506, 4139222; 735096, 4138690; 734851, 4138321; 734441, 4138157; 734072, 4138096; 733294, 4137194; 732946, 4137112; 732720, 4137543; 732802, 4138034; 732454, 4138219; 732229, 4138178; 732085, 4138034; 732065, 4137932; 731839, 4137727; 731553, 4137112; returning to 731225, 4136887.

(ii) **Note:** Unit 9 is depicted on Map 12—Units 8, 9, and 10—see paragraph (25)(ii).

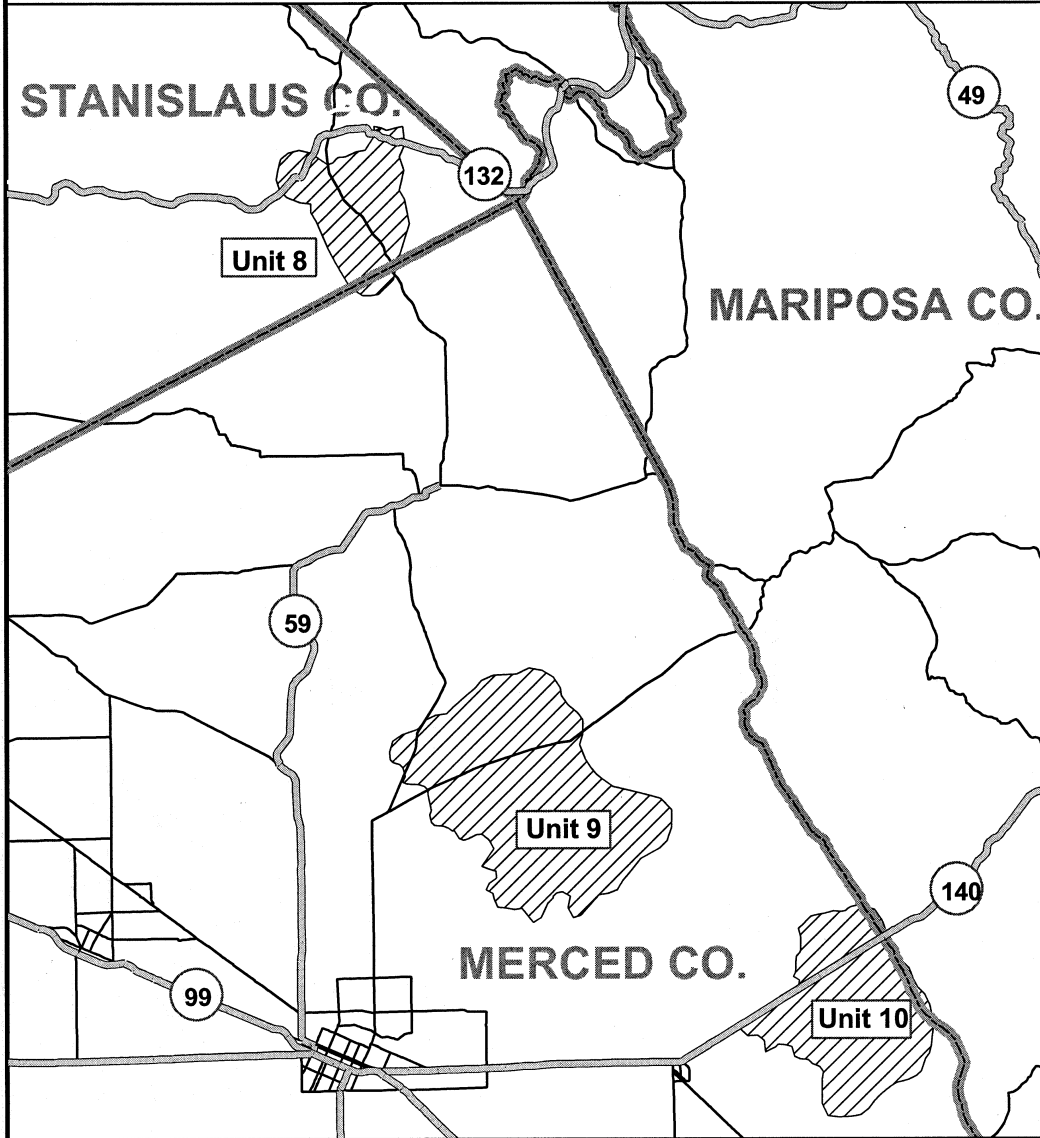
(25) Central Valley Region: Unit 10 Miles Creek, Merced County, California.

(i) From USGS 1:24,000 quadrangle maps Planada, Owens Reservoir, California, land bounded by the

following UTM 10 NAD 27 coordinates (E, N): 744463, 4128437; 743951, 4128470; 743704, 4129014; 743704, 4129377; 743704, 4130037; 743737, 4130384; 743588, 4130598; 743275, 4130747; 743110, 4130912; 742780, 4130928; 742499, 4131060; 742384, 4131489; 742120, 4131555; 741823, 4131588; 741724, 4131489; 741245, 4131258; 741212, 4131737; 740915, 4131984; 740502, 4131968; 740156, 4132248; 740453, 4132562; 740684, 4132727; 741014, 4132958; 741344, 4133156; 741509, 4133222; 741922, 4133486; 742252, 4133733; 742681, 4134113; 742714, 4134360; 742466, 4134525; 742532, 4134657; 742565, 4134872; 742549, 4135136; 742582, 4135400; 742714, 4135532; 742763, 4135664; 742780, 4136060; 742763, 4136241; 742681, 4136605; 742879, 4136786; 742978, 4136902; 743242, 4137149; 743555, 4137215; 743836, 4137265; 744199, 4137364; 744545, 4137347; 744727, 4137397; 744958, 4137562; 745172, 4137595; 745519, 4137562; 745981, 4137430; 746245, 4137001; 746360, 4136786; 746542, 4136175; 746542, 4136109; 746624, 4135845; 746641, 4135400; 746740, 4135169; 746855, 4135119; 747235, 4135103; 747433, 4134872; 747614, 4134459; 747845, 4134030; 748126, 4133750; 748324, 4133337; 748406, 4132974; 748456, 4132545; 748489, 4132430; 748489, 4132199; 748439, 4131852; 748423, 4131555; 748307, 4131176; 748159, 4130928; 747961, 4130384; 747779, 4130219; 747383, 4130037; 746921, 4129922; 746657, 4129757; 746195, 4129394; 745915, 4129080; 745700, 4128783; 745387, 4128519; 744958, 4128453; returning to 744463, 4128437.

(ii) **Note:** Unit 10 is depicted on Map 12—Units 8, 9, and 10—which follows:

### Central California Tiger Salamander Central Valley Region, Units 8, 9, 10 Map 12



	Local Roads
	Highway
	County Boundary
	Critical Habitat Unit



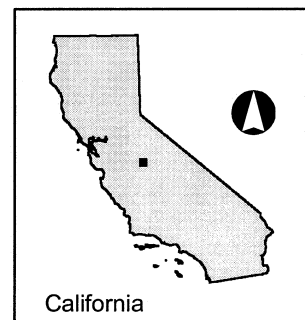
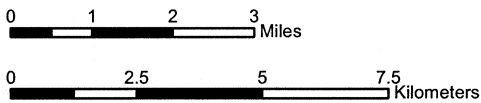
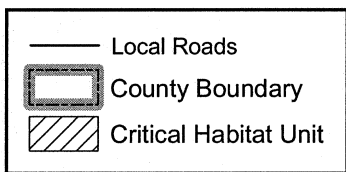
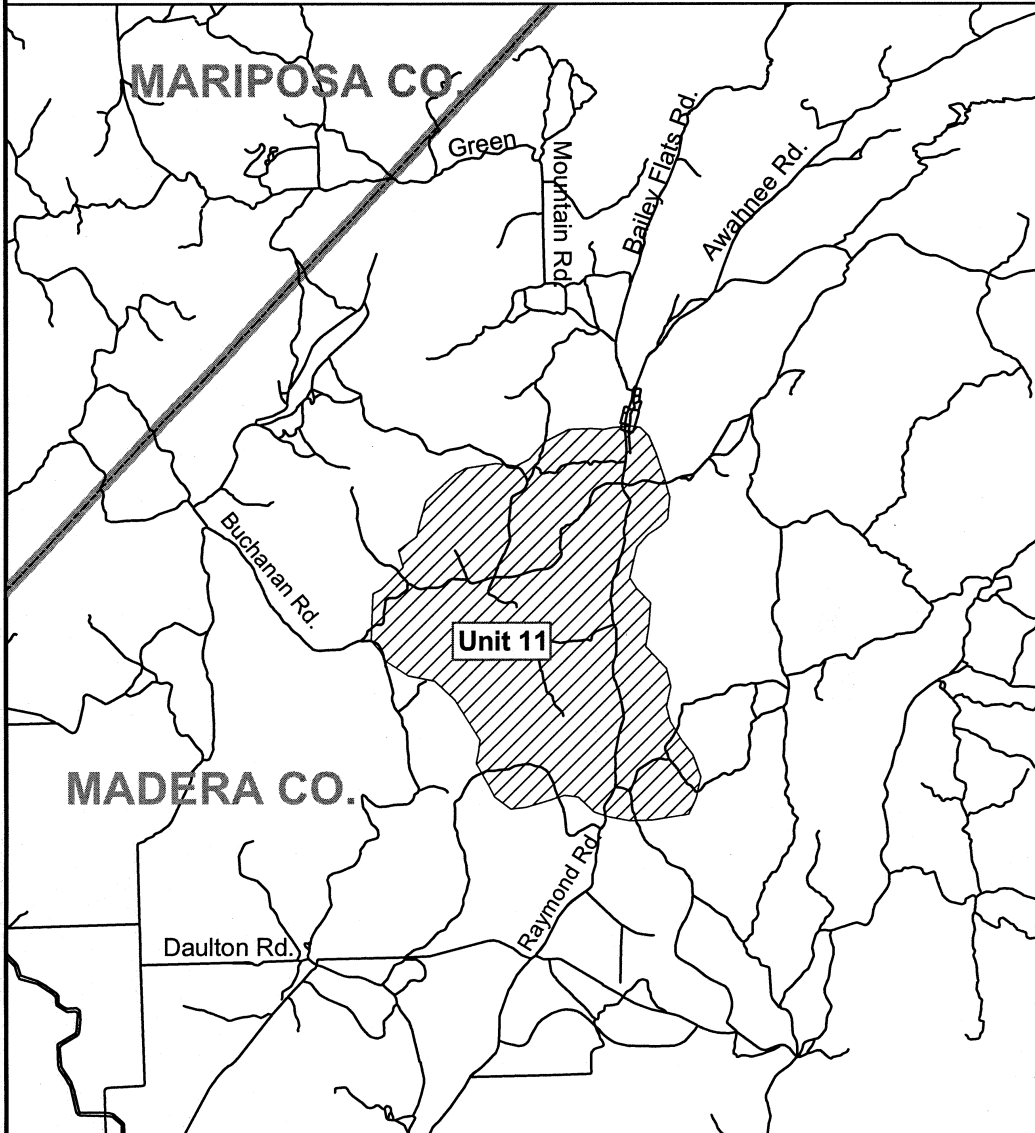
(26) Central Valley Region: Unit 11  
Rabbit Hill, Madera County, California.  
(i) From USGS 1:24,000 quadrangle  
map Raymond, California, land  
bounded by the following UTM 11 NAD  
27 coordinates (E, N): 242061, 4114418;  
241613, 4114432; 241216, 4114532;  
240924, 4114655; 240630, 4114972;  
240363, 4115019; 240014, 4114937;  
239574, 4114830; 239274, 4114819;  
238975, 4115077; 238858, 4115339;  
238646, 4115772; 238705, 4115993;  
238749, 4116230; 238455, 4116786;  
238308, 4117050; 237928, 4117449;

237399, 4117587; 236984, 4117898;  
236878, 4118114; 236728, 4118333;  
236817, 4119255; 237001, 4119333;  
237445, 4119739; 237377, 4120088;  
237753, 4120333; 237830, 4120612;  
237976, 4121022; 238386, 4121356;  
238607, 4121536; 238808, 4121629;  
239410, 4121695; 239808, 4121609;  
240086, 4121742; 240421, 4122064;  
240898, 4122273; 241346, 4122260;  
241584, 4122230; 241795, 4122262;  
242170, 4122253; 242317, 4122228;  
242485, 4122038; 242598, 4121702;

242730, 4121184; 242810, 4120806;  
242738, 4120361; 242579, 4120222;  
242346, 4120087; 242106, 4119847;  
242013, 4119570; 241919, 4119246;  
242054, 4119028; 242305, 4118728;  
242245, 4118268; 242145, 4117870;  
242536, 4117412; 242602, 4117048;  
242487, 4116651; 242543, 4116363;  
242771, 4115945; 242949, 4115679;  
243085, 4115222; 242969, 4114810;  
242799, 4114491; returning to 242061,  
4114418.

(ii) **Note:** Unit 11 (Map 13) follows:

### Central California Tiger Salamander Central Valley Region, Unit 11 Map 13



(27) Central Valley Region: Unit 12 San Luis Island, Merced County, California.

(i) From USGS 1:24,000 quadrangle maps Gustine, Stevinson, Ingomar, and San Luis Reservoir, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 689748, 4121346; 689002, 4121470; 688629, 4122009; 688215, 4122920; 687676, 4123417; 687013, 4123542; 686184, 4123956; 686019, 4124370; 686226, 4125240; 685770, 4125572; 684983, 4125862; 685190, 4126691; 684983, 4127188; 685107, 4127809; 685397, 4127934; 685604, 4128141; 686184, 4128597; 686640, 4128638; 687676, 4128680; 688215, 4128721; 688629, 4128555; 689126, 4128597; 689665, 4128928; 690576, 4129011; 691074, 4128390; 691571, 4128390; 692151, 4128017;

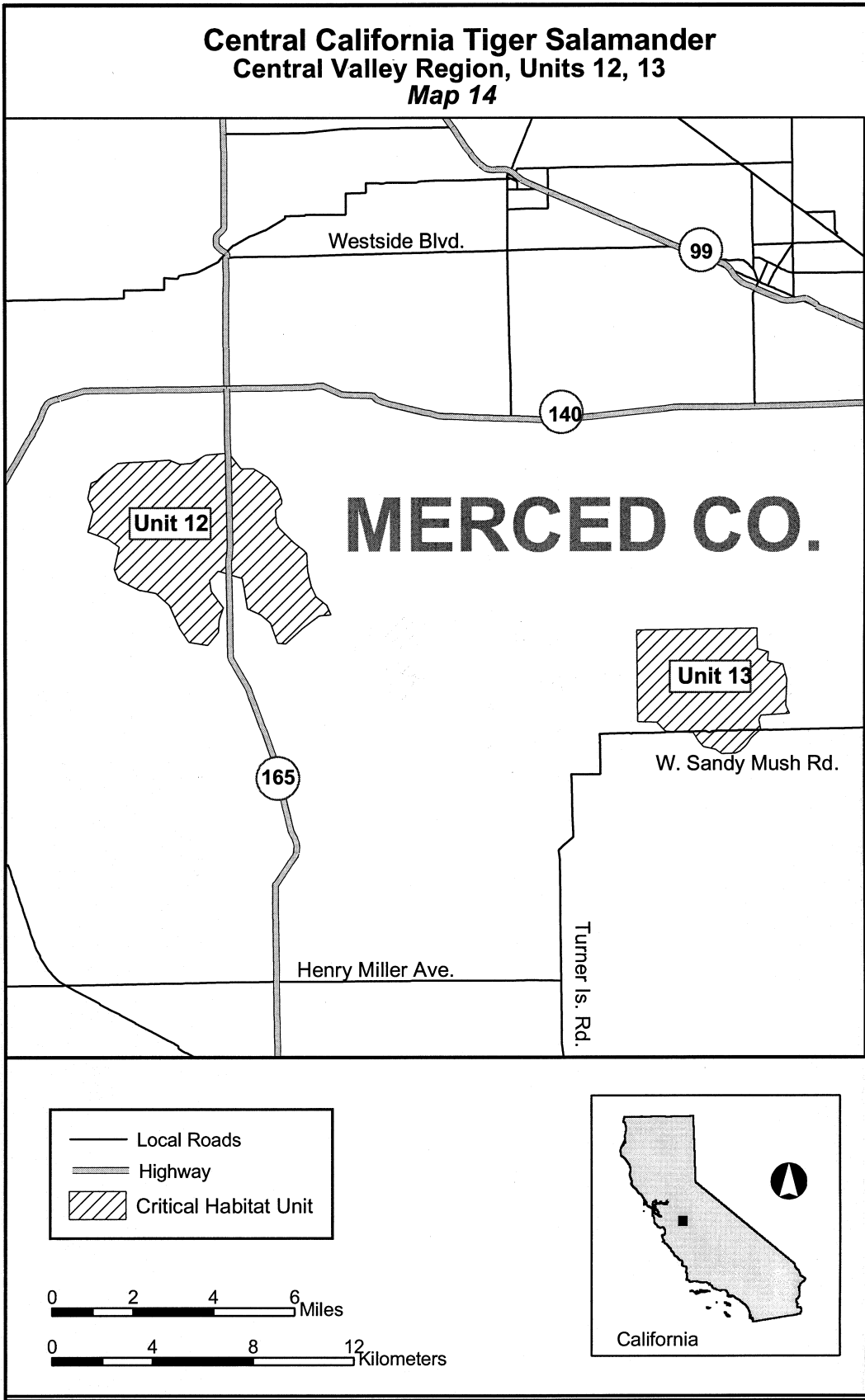
692524, 4127602; 692690, 4127105; 692690, 4126981; 692441, 4126732; 692482, 4126235; 692607, 4125986; 693145, 4125448; 693518, 4125158; 693684, 4124992; 693725, 4124287; 693850, 4123707; 694057, 4123252; 694471, 4122920; 694637, 4122547; 694181, 4122506; 693518, 4122009; 692855, 4121387; 692524, 4121428; 692234, 4122216; 691861, 4122547; 691322, 4122796; 691198, 4123583; 691115, 4123997; 690162, 4124287; 689831, 4123915; 689872, 4123500; 690369, 4122837; 690204, 4122340; 690162, 4121843; returning to 689748, 4121346.

(ii) **Note:** Unit 12 is depicted on Map 14—Units 12 and 13—see paragraph (28)(i).

(28) Central Valley Region: Unit 13 Sandy Mush, Merced County, California.

(i) From USGS 1:24,000 quadrangle maps Turner Ranch, and Sandy Mush, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 710169, 4117012; 709914, 4117191; 709453, 4117293; 709261, 4117524; 709056, 4117856; 708327, 4117882; 707931, 4117907; 707585, 4118266; 706830, 4118291; 706805, 4121924; 711590, 4122001; 711602, 4121170; 712037, 4121067; 711999, 4120709; 712626, 4120581; 712779, 4119967; 712754, 4118944; 712882, 4118624; 711743, 4118547; 711666, 4118355; 711730, 4117984; 711385, 4117652; 711154, 4117332; 710924, 4117127; 710720, 4117025; returning to 710169, 4117012.

(ii) **Note:** Unit 13 is depicted on Map 14—Units 12 and 13—which follows:



(29) Central Valley Region: Unit 14 Mulligan Hill, Contra Costa County, California.

(i) From USGS 1:24,000 quadrangle maps Honker Bay, and Clayton, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 594583, 4201700; 594107, 4201859; 593888, 4201998; 593611, 4202335; 593293, 4202613; 592956, 4202772; 592698, 4202534; 592460, 4202335; 592102, 4202355; 591765, 4202534; 591567, 4202752; 591408, 4203010; 591150, 4203288; 590912, 4203526; 590852, 4203704; 590892, 4204101; 590436, 4204399; 590019, 4204816; 589999, 4205173; 590019, 4205748; 590356, 4206165; 590614, 4206383; 590793, 4207157; 590932, 4207316; 591110, 4207435; 591448, 4207495; 591666, 4207395; 591666, 4207098; 591666, 4206899; 591785, 4206641; 591924, 4206463; 592301, 4206483; 592559, 4206721; 592817, 4206840; 592856, 4206860; 593432, 4206423; 593690, 4206483; 594027, 4206502; 594365, 4206264; 594702; 4375000; 4206284; 595079, 4206403; 595436, 4206423; 595833, 4206423; 595992, 4206264; 596071, 4205987; 596230, 4205788; 596409, 4205629; 596587, 4205371; 596607, 4205074; 596468, 4204776; 596289, 4204518; 595932, 4204280; 595734, 4204121; 595694, 4203645; 595833, 4203248; 595853, 4202891; 595714, 4202375; 595674, 4202335; 595377, 4201938; 595059, 4201740; returning to 594583, 4201700.

(ii) **Note:** Unit 14 is depicted on Map 15—Units 14, 15, and 16—see paragraph (31)(ii).

(30) Central Valley Region: Unit 15 Deer Valley, Contra Costa County, California.

(i) From USGS 1:24,000 quadrangle map Antioch South, California, land bounded by the following UTM 10 NAD

27 coordinates (E, N): 604235, 4195940; 603680, 4196311; 603332, 4196843; 602753, 4198696; 602684, 4199414; 602591, 4199923; 602429, 4200826; 602151, 4200849; 601758, 4200849; 601179, 4200849; 600484, 4200849; 599882, 4200780; 599465, 4200595; 599025, 4200757; 598909, 4201127; 598909, 4201590; 599048, 4202007; 599141, 4202586; 599210, 4203096; 599673, 4203628; 600229, 4203790; 600993, 4203536; 601480, 4203582; 602082, 4203744; 602568, 4203651; 602985, 4203420; 603332, 4203026; 603564, 4201961; 603981, 4201637; 604583, 4201544; 604884, 4201336; 604976, 4200896; 605069, 4200595; 605301, 4200479; 605717, 4200270; 605903, 4200155; 606343, 4200155; 606667, 4199969; 606898, 4199645; 607084, 4199460; 607246, 4199391; 607338, 4199020; 607547, 4198719; 607639, 4198464; 607616, 4198094; 607524, 4197955; 607524, 4197607; 607223, 4197306; 606922, 4197306; 606435, 4197677; 606111, 4197816; 605694, 4197885; 605532, 4197445; 605463, 4197028; 605393, 4196612; 604930, 4196149; 604698, 4196033; returning to 604235, 4195940.

(ii) **Note:** Unit 15 is depicted on Map 15—Units 14, 15, and 16—see paragraph (31)(ii).

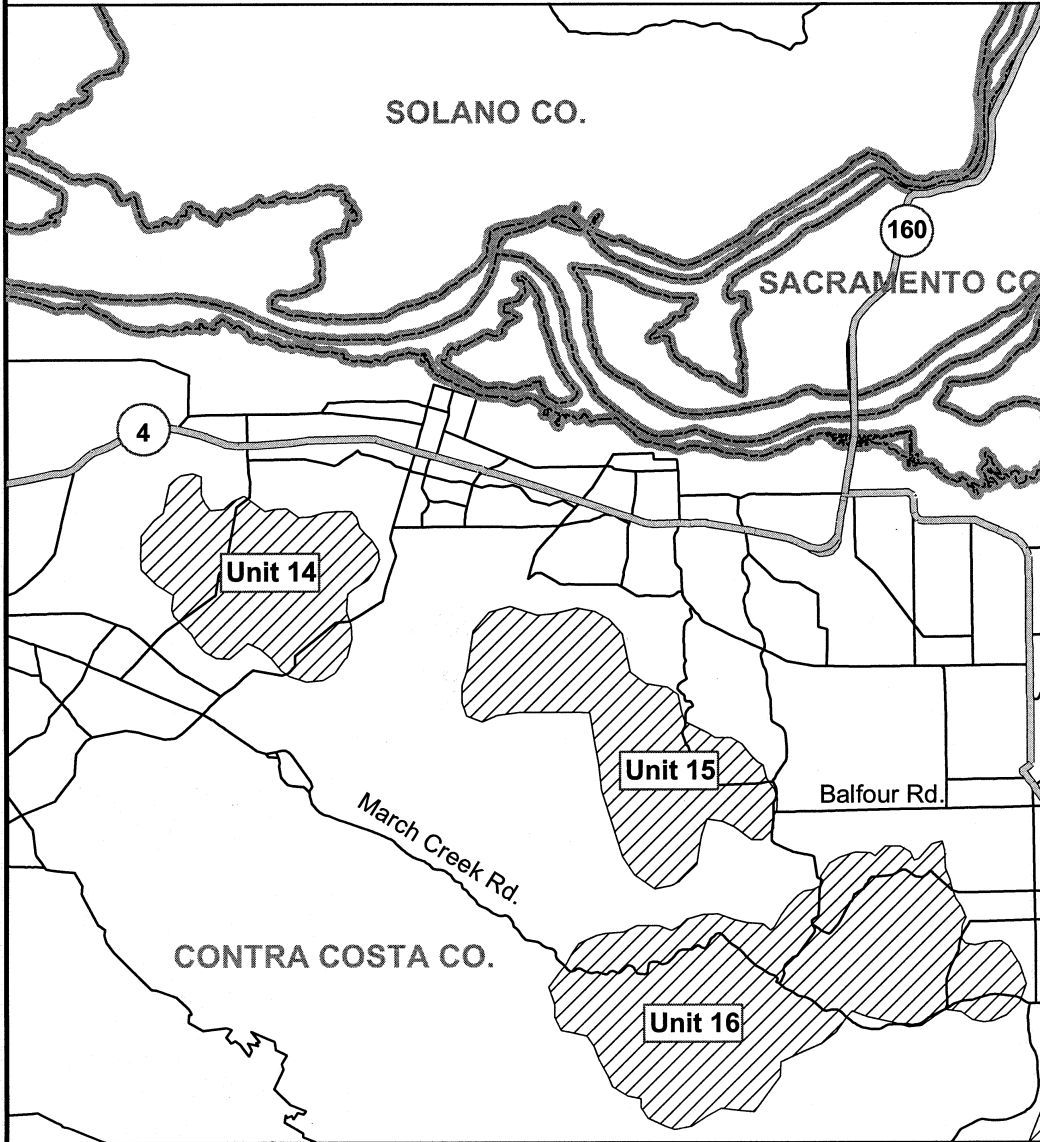
(31) Central Valley Region: Unit 16 Marsh Creek, Contra Costa County, California.

(i) From USGS 1:24,000 quadrangle maps Antioch South, Brentwood, Tassajara, and Byron Hot Springs, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 604791, 4189225; 604513, 4189340; 604050, 4189549; 603842, 4189850; 603842, 4190105; 603471, 4190174; 603054, 4190429; 602915, 4190753; 602684, 4191216; 602545, 4191563; 602337, 4191841; 601850, 4191957; 601642, 4192003; 601457,

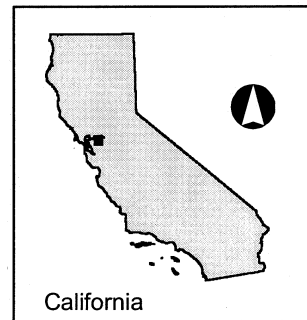
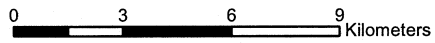
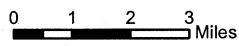
4192374; 601457, 4192721; 601294, 4193208; 601665, 4193694; 601758, 4193786; 601920, 4194111; 602128, 4194412; 602337, 4194527; 602638, 4194643; 602892, 4194713; 603332, 4194736; 603402, 4194759; 603749, 4194921; 604351, 4194921; 604699, 4194782; 604953, 4194921; 605138, 4195106; 605578, 4195222; 605995, 4195245; 606435, 4195083; 606806, 4194991; 607246, 4194968; 607454, 4194782; 607547, 4194852; 607732, 4195176; 607917, 4195454; 608218, 4195755; 608380, 4195871; 608635, 4195917; 608820, 4196010; 608844, 4196288; 609075, 4196658; 609376, 4196820; 609793, 4196959; 610210, 4196936; 610349, 4196843; 610627, 4197121; 611020, 4197121; 611321, 4196959; 611414, 4196728; 611553, 4196774; 611923, 4197191; 612201, 4197260; 612271, 4196982; 612294, 4196519; 612410, 4196195; 612456, 4196010; 612572, 4195662; 612734, 4195454; 612873, 4195130; 612757, 4194921; 612734, 4194574; 612850, 4194412; 613128, 4194365; 613521, 4194458; 613845, 4194481; 614054, 4194342; 614355, 4193833; 614540, 4193277; 614355, 4192768; 613984, 4192420; 613614, 4192258; 613359, 4192235; 613035, 4192281; 612711, 4192513; 612294, 4192582; 611993, 4192397; 611622, 4192119; 611275, 4192096; 610858, 4192212; 610117, 4192374; 609700, 4192536; 609561, 4192374; 609260, 4191934; 608867, 4191633; 608705, 4191563; 608288, 4191378; 607732, 4191123; 607709, 4190707; 606991, 4189734; 606621, 4189757; 606088, 4189827; 605671, 4189595; 605277, 4189340; return to 604791, 4189225.

(ii) **Note:** Unit 16 is depicted on Map 15—Units 14, 15, and 16—which follows:

### Central California Tiger Salamander Central Valley Region, Units 14, 15, 16 Map 15



	Local Roads
	Highway
	County Boundary
	Critical Habitat Unit





(32) Central Valley Region: Unit 17  
Benthany Reservoir, Alameda and  
Contra Costa Counties, California.

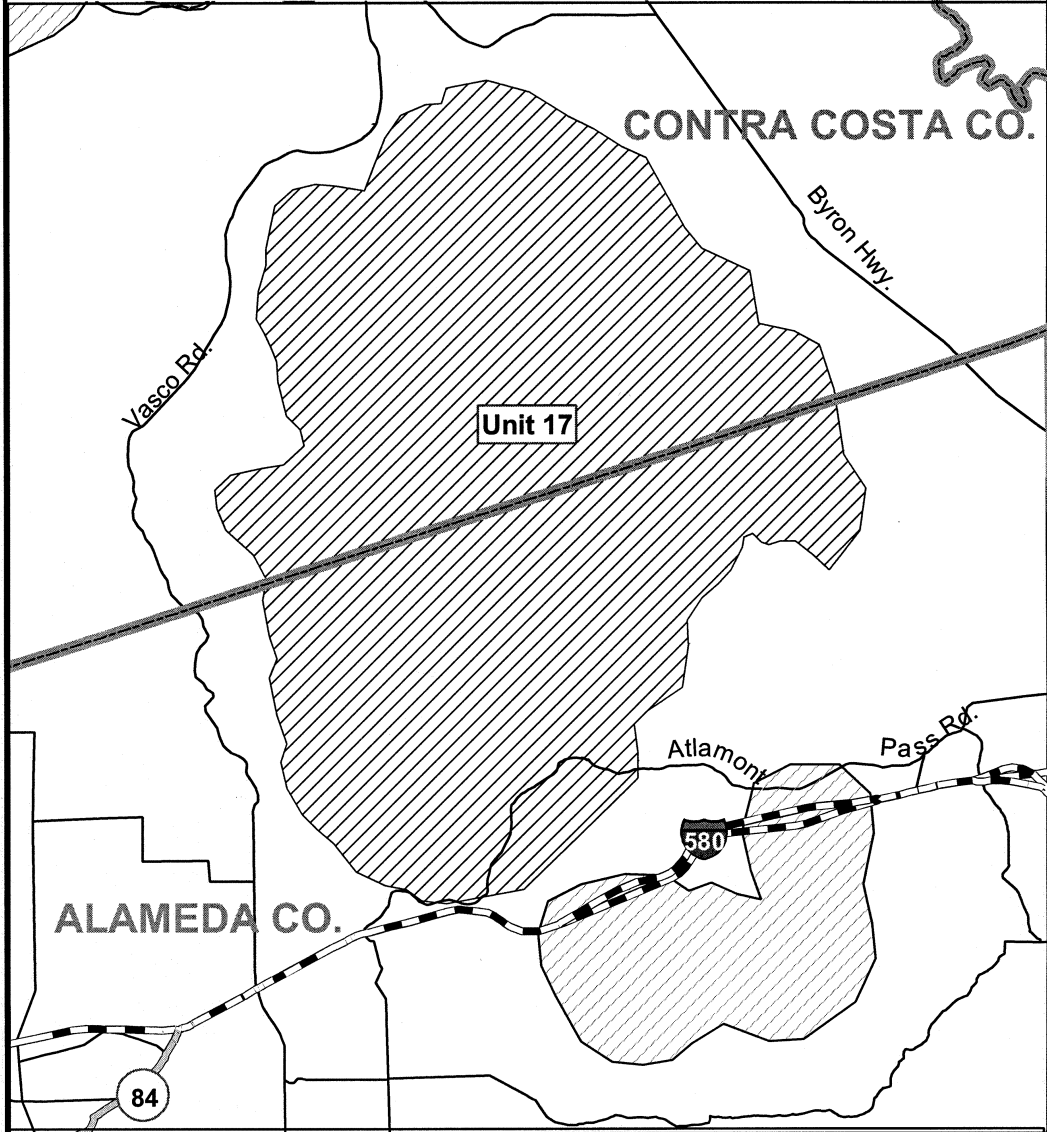
(i) From USGS 1:24,000 quadrangle  
maps Byron Hot Springs, Clifton Court  
Forebay, and Altamont, California, land  
bounded by the following UTM 10 NAD  
27 coordinates (E, N): 616069, 4175678;  
615606, 4175724; 615328, 4175933;  
614934, 4176002; 614401, 4176257;  
613985, 4176789; 613683, 4177044;  
613406, 4177322; 613128, 4177808;  
613012, 4178271; 613128, 4178619;  
612942, 4179128; 612804, 4179823;  
612942, 4180170; 612804, 4180587;  
612688, 4181235; 612757, 4181629;  
612526, 4182069; 612016, 4182532;

611854, 4182926; 611808, 4183273;  
612109, 4183551; 612665, 4183667;  
613081, 4183736; 613452, 4184084;  
613382, 4184385; 613128, 4184640;  
612966, 4185265; 612942, 4185635;  
612850, 4185890; 612711, 4186168;  
612572, 4186423; 612618, 4186932;  
612757, 4187418; 612757, 4187719;  
612919, 4188507; 613243, 4188808;  
613660, 4188900; 614031, 4188877;  
614563, 4188785; 614749, 4189271;  
614934, 4189734; 615235, 4190174;  
615698, 4190359; 615976, 4190383;  
616069, 4190660; 616810, 4190799;  
617574, 4190591; 618292, 4190151;  
618755, 4189919; 619264, 4189595;  
619727, 4189387; 620445, 4188090;

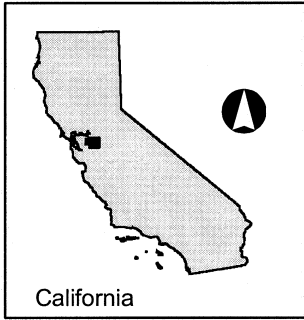
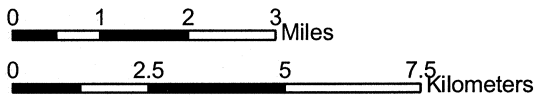
620746, 4187719; 621626, 4187303;  
621788, 4186330; 622437, 4186191;  
622900, 4185936; 623178, 4185103;  
623340, 4183922; 623757, 4183296;  
623641, 4182509; 623085, 4181791;  
622784, 4182069; 622460, 4182324;  
622182, 4182324; 621974, 4182254;  
621835, 4182301; 621673, 4182463;  
621511, 4182393; 621487, 4182208;  
621279, 4181791; 621047, 4181537;  
620746, 4181282; 620468, 4180865;  
620492, 4180402; 620376, 4179638;  
619751, 4179221; 619496, 4178966;  
619565, 4178457; 619565, 4177970;  
618390, 4176820; 617484, 4175935;  
returning to 616069, 4175678.

(ii) **Note:** Unit 17 (Map 16) follows:

### Central California Tiger Salamander Central Valley Region, Unit 17 Map 16



	Local Roads
	Interstate Highways
	County Boundary
	Critical Habitat Unit



(33) Central Valley Region: Unit 18  
Doolan Canyon, Alameda and Contra  
Costa Counties, California.

(i) From USGS 1:24,000 quadrangle  
maps Diablo, Tassajara, Dublin, and  
Livermore, California, land bounded by  
the following UTM 10 NAD 27

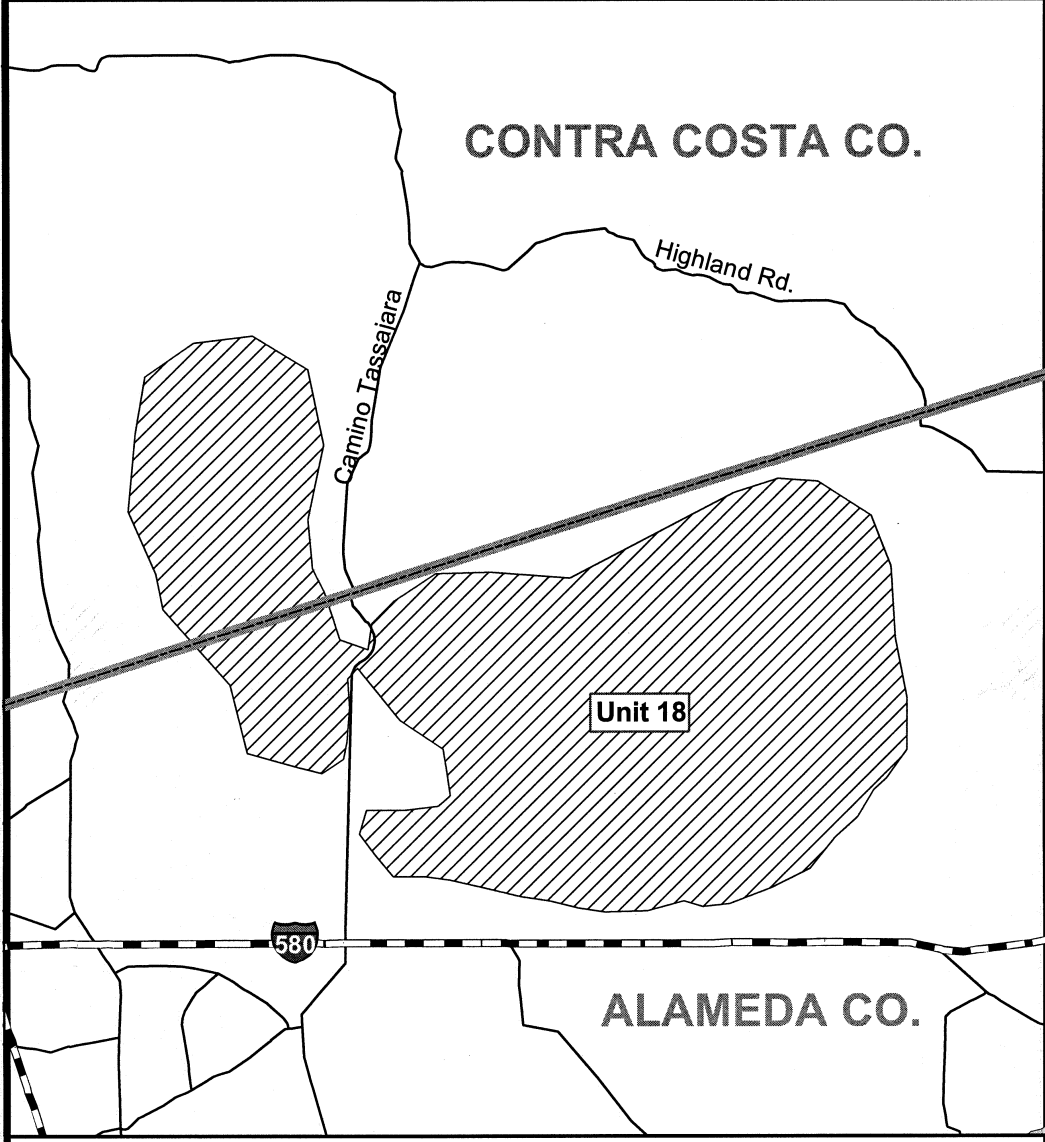
coordinates (E, N): 602667, 4173458;  
602354, 4173510; 602005, 4173597;  
601657, 4173649; 601204, 4173754;  
600787, 4173858; 600473, 4173893;  
600090, 4173893; 599864, 4174154;  
599672, 4174415; 599759, 4174711;  
600229, 4174711; 600647, 4174764;

600787, 4174885; 600700, 4175460;  
600177, 4175808; 599655, 4176452;  
599533, 4176313; 599550, 4175965;  
599516, 4175547; 599481, 4175338;  
599220, 4175164; 598924, 4175234;  
598297, 4175408; 598088, 4176243;  
597269, 4177166; 597182, 4177602;  
596852, 4178368; 596939, 4179325;  
597061, 4180022; 597653, 4180440;  
598366, 4180527; 599045, 4180109;  
599237, 4179186; 599045, 4178263;  
599098, 4177671; 599237, 4177393;  
599428, 4176801; 599777, 4176679;  
599829, 4176992; 600108, 4177271;

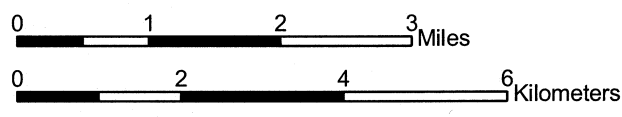
600612, 4177602; 601274, 4177619;  
602249, 4177549; 604251, 4178594;  
604791, 4178768; 605279, 4178733;  
605923, 4178316; 606167, 4177689;  
606219, 4176818; 606358, 4176087;  
606358, 4175443; 606114, 4175094;  
605958, 4174955; 605766, 4174624;  
605488, 4174381; 605192, 4173997;  
604704, 4173754; 604199, 4173562;  
603868, 4173527; 603642, 4173597;  
603189, 4173475; returning to 602667,  
4173458.

(ii) **Note:** Unit 18 (Map 17) follows:

### Central California Tiger Salamander Central Valley Region, Unit 18 Map 17



	Local Roads
	Interstate Highways
	County Boundary
	Critical Habitat Unit



(34) Southern San Joaquin Region:  
Unit 1 Millerton, Madera County,  
California.

(i) From USGS 1:24,000 quadrangle  
maps Little Tableton, Millerton Lake  
West, Lanes Bridge, and Friant,  
California, land bounded by the  
following UTM 11 NAD 27 coordinates  
(E, N): 251488, 4086839; 251202,

4087087; 251266, 4087526; 251291,  
4087931; 251296, 4088286; 251248,  
4088660; 251180, 4088983; 251181,  
4089550; 251192, 4089727; 252080,  
4089759; 252381, 4089776; 252408,  
4090199; 252445, 4090781; 252388,  
4090997; 252021, 4091091; 251558,  
4091032; 251272, 4091280; 251265,  
4091457; 251265, 4092007; 251286,  
4092341; 251343, 4092958; 253025,  
4092958; 253232, 4092875; 253479,  
4093141; 253900, 4093345; 253998,  
4093782; 253782, 4094008; 253510,  
4094185; 253221, 4094380; 253290,  
4094642; 253361, 4094920; 253467,  
4095197; 253725, 4095358; 253941,  
4095415; 253933, 4095840; 253828,  
4096149; 253734, 4096614; 253713,  
4096846; 253765, 4097392; 254020,  
4097783; 254422, 4097970; 254523,  
4098176; 254426, 4098607; 254611,  
4099021; 254807, 4099309; 254775,  
4099648; 254671, 4099973; 255046,  
4100003; 255422, 4100351; 255981,  
4100510; 256301, 4100526; 256511,  
4101062; 256586, 4101676; 256787,  
4102053; 256920, 4102205; 257360,  
4102424; 257892, 4102444; 258243,  
4102387; 258578, 4102100; 258716,  
4101755; 258815, 4101359; 258634,  
4100732; 258219, 4100334; 257973,

4100084; 257970, 4099482; 257922,  
4098989; 257813, 4098677; 257723,  
4098098; 257565, 4097559; 257418,  
4097179; 257023, 4096832; 256598,  
4096540; 256129, 4096127; 256271,  
4095569; 256038, 4094964; 255504,  
4094360; 255213, 4094237; 254952,  
4093758; 254876, 4093390; 254955,  
4092960; 255051, 4092511; 255065,  
4092174; 255060, 4091821; 254793,  
4091235; 254372, 4091014; 253886,  
4090885; 253622, 4090636; 253695,  
4090383; 253916, 4090245; 253850,  
4090037; 253583, 4089735; 253429,  
4089533; 252970, 4088994; 252716,  
4088621; 252722, 4088426; 252645,  
4088041; 252250, 4087411; 251921,  
4087237; 251696, 4087038; returning to  
251488, 4086839.

(ii) **Note:** Unit 1 is depicted on Map  
18—Units 1 and 2—see paragraph  
(35)(ii).

(35) Southern San Joaquin Region:  
Unit 2 Northeast Fresno, Fresno County,  
California.

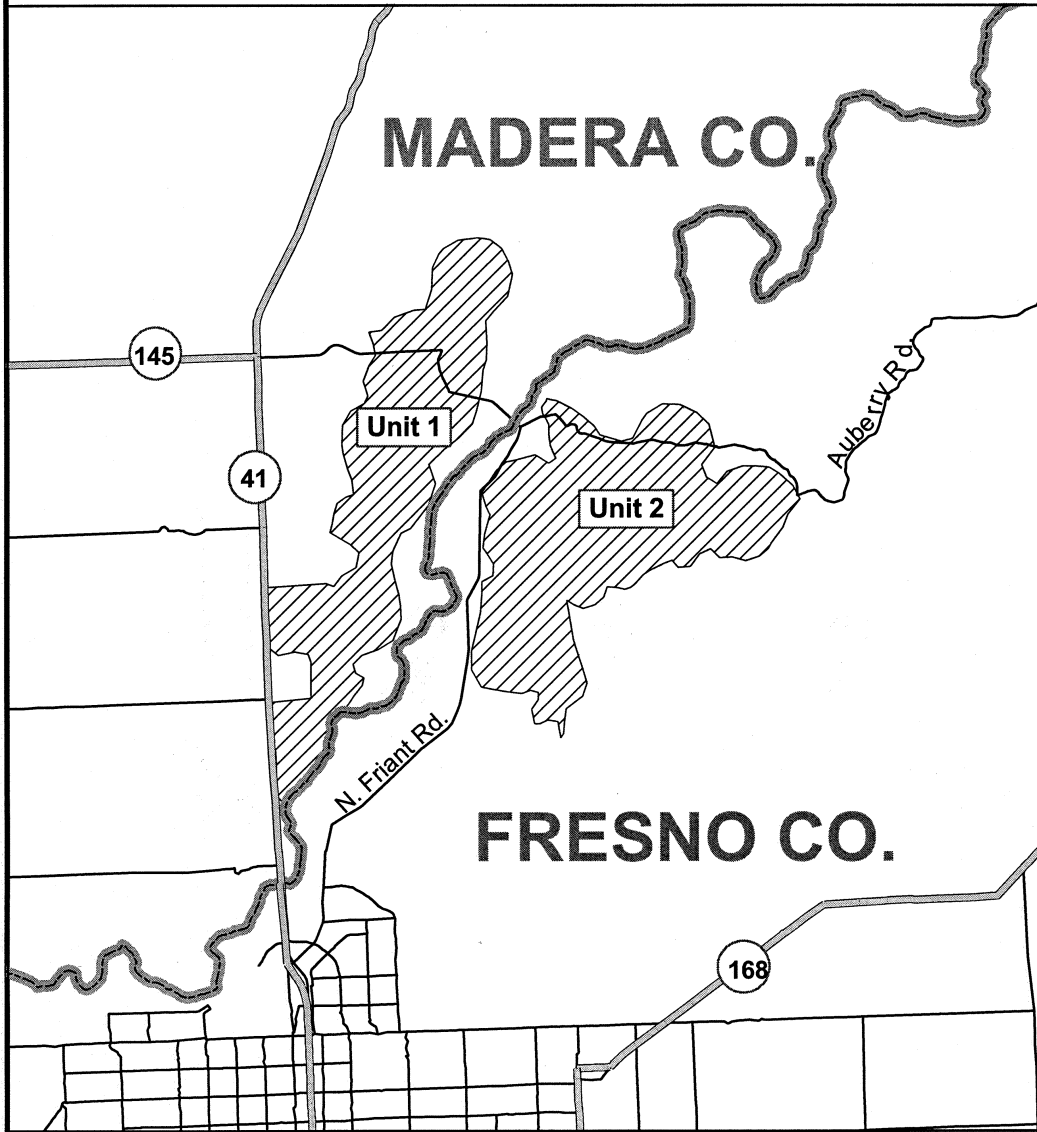
(i) From USGS 1:24,000 quadrangle  
map Friant, California, land bounded by  
the following UTM 11 NAD 27  
coordinates (E, N): 259348, 4088203;





259307, 4088666; 259010, 4088738;  
258792, 4088646; 258633, 4088656;  
258587, 4089048; 258780, 4089301;  
258793, 4089513; 258586, 4089597;  
258333, 4089524; 257879, 4089606;  
257512, 4089700; 257198, 4089773;  
256965, 4090283; 256997, 4090795;  
257312, 4091873; 257382, 4092399;  
257403, 4092735; 257730, 4092873;  
257769, 4093207; 257594, 4093520;  
257498, 4093685; 257575, 4094070;  
257751, 4094608; 257643, 4094863;

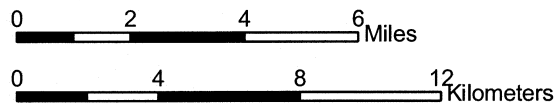
257561, 4095240; 257813, 4095578;  
258005, 4095832; 258322, 4096077;  
258625, 4096111; 259128, 4096221;  
259500, 4095950; 259703, 4096078;  
259568, 4096458; 259552, 4096779;  
259570, 4097061; 259492, 4097225;  
259412, 4097354; 259387, 4097533;  
259522, 4097701; 259563, 4097787;  
259824, 4097700; 260233, 4097462;  
260571, 4097192; 260853, 4096909;  
260996, 4096652; 261586, 4096455;  
261891, 4096507; 262187, 4097002;  
262340, 4097187; 262798, 4097423;  
263274, 4097376; 263735, 4097117;  
264068, 4096777; 264184, 4096097;  
263783, 4095626; 263902, 4095264;  
264191, 4095069; 264494, 4095404;  
264945, 4095535; 265298, 4095513;  
265684, 4095453; 265954, 4095241;  
266321, 4094881; 266490, 4094481;  
266110, 4094062; 265945, 4093701;  
265601, 4093298; 265520, 4093144;  
265279, 4092964; 264865, 4092849;  
264501, 4092978; 264129, 4092984;  
263880, 4093248; 263589, 4093124;  
263303, 4092788; 262947, 4092775;  
262785, 4092997; 262531, 4092907;  
262223, 4092785; 261965, 4092642;  
261719, 4092392; 261590, 4092311;  
261410, 4092252; 261219, 4092318;  
260922, 4092372; 260796, 4092061;  
260554, 4091881; 260212, 4091796;  
259955, 4091919; 259768, 4092055;  
259875, 4090950; 259972, 4090518;  
260073, 4090158; 260186, 4089691;  
260039, 4089328; 259557, 4089004;  
259481, 4088637; 259426, 4088322;  
returning to 259348, 4088203.

(ii) **Note:** Unit 2 is depicted on Map  
18—Units 1 and 2—which follows:

**Central California Tiger Salamander**  
**Southern San Joaquin Region, Units 1, 2**  
*Map 18*



-  Local Roads
-  Highway
-  County Boundary
-  Critical Habitat Unit



(36) Southern San Joaquin Region:  
Unit 3 Hills Valley, Fresno County,  
California.

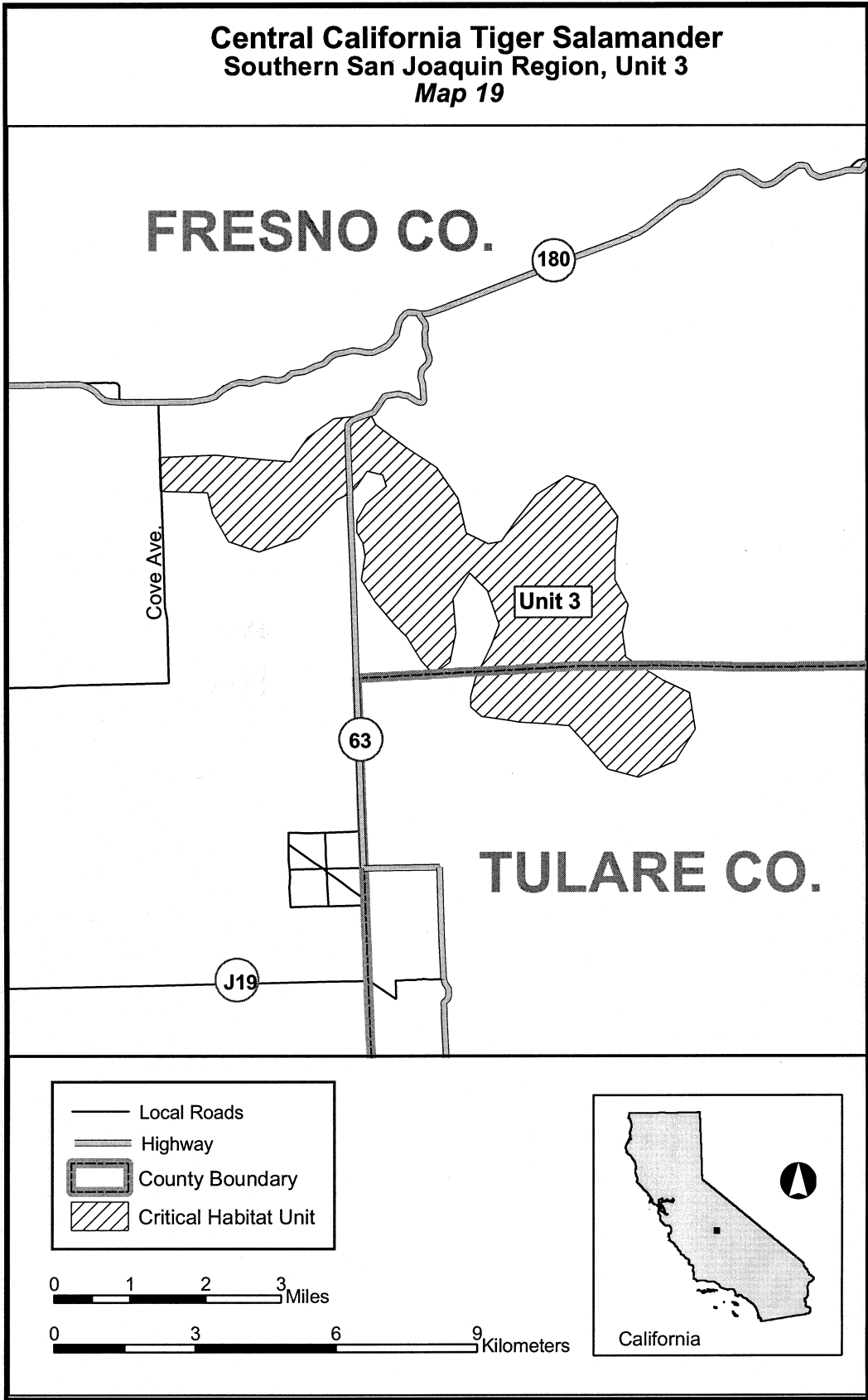
(i) From USGS 1:24,000 quadrangle  
maps Orange Cove North, and Tucker  
Mtn., California, land bounded by the  
following UTM 11 NAD 27 coordinates  
(E, N299934, 4057038; 299297, 4057253;  
298926, 4057727; 298532, 4058227;  
298013, 4058310; 297491, 4058367;  
297195, 4058436; 296676, 4058544;  
296464, 4058757; 296478, 4058981;  
296603, 4059374; 296967, 4060002;  
297172, 4060465; 296968, 4061203;  
296617, 4061601; 296234, 4061074;

296238, 4060348; 296075, 4059732;  
295710, 4059505; 295478, 4059795;  
295210, 4060312; 294976, 4060577;  
294584, 4061102; 294314, 4061595;  
294420, 4062089; 294389, 4062391;  
294279, 4062623; 294294, 4062872;  
294515, 4063209; 294963, 4063556;  
294904, 4063810; 294584, 4063905;  
294339, 4063595; 294207, 4063478;  
293923, 4063346; 293579, 4063042;  
293049, 4062575; 292183, 4062329;  
291549, 4062594; 291238, 4063214;  
291166, 4063669; 290170, 4063757;  
290190, 4064481; 291390, 4064456;  
292356, 4064295; 292976, 4064206;

293383, 4064705; 293956, 4065070;  
294734, 4065096; 294821, 4064891;  
295438, 4064352; 296060, 4063888;  
296468, 4063212; 296595, 4062453;  
297055, 4062199; 297332, 4062231;  
297658, 4062636; 298143, 4063182;  
298815, 4063540; 299401, 4063303;  
299832, 4062600; 299734, 4061831;  
299698, 4061257; 299939, 4060717;  
299779, 4060151; 299819, 4059598;  
300562, 4059076; 301118, 4058766;  
301195, 4057985; 300729, 4057339;  
returning to 299934, 4057038.

(ii) **Note:** Unit 3 (Map 19) follows:

### Central California Tiger Salamander Southern San Joaquin Region, Unit 3 Map 19





(37) Southern San Joaquin Region:  
Unit 4 Seville, Tulare County,  
California.

(i) From USGS 1:24,000 quadrangle  
map Ivanhoe, California, land bounded  
by the following UTM 11 NAD 27  
coordinates (E, N): 299267, 4038424;  
298441, 4038462; 298480, 4039245;  
299290, 4039221; 299326, 4040020;  
299295, 4040041; 299305, 4040405;  
299108, 4040431; 299133, 4040832;  
299802, 4040797; 300145, 4040423;  
300104, 4039984; 299746, 4039980;  
299719, 4039203; 299300, 4039209;  
returning to 299267, 4038424.

(ii) **Note:** Unit 4 is depicted on Map  
20—Units 4, 5A, and 5B—see paragraph  
(39)(ii).

(38) Southern San Joaquin Region:  
Unit 5A Cottonwood Creek, Tulare  
County, California.

(i) From USGS 1:24,000 quadrangle  
maps Burris Park, Traver, Monson, and  
Remnoy, California, land bounded by  
the following UTM 11 NAD 27  
coordinates (E, N): 274838, 4027770;

274782, 4027997; 274809, 4029585;  
275643, 4029545; 276227, 4030027;  
276522, 4030432; 276541, 4031101;  
277294, 4031102; 278100, 4031382;  
278112, 4031569; 279712, 4031552;  
279237, 4032618; 280614, 4032602;  
281449, 4032975; 282167, 4032965;  
282892, 4033638; 283058, 4034040;  
284003, 4034098; 284733, 4034866;  
288647, 4034751; 288636, 4035528;  
287886, 4035563; 287910, 4036340;  
289313, 4036369; 289500, 4036346;  
289467, 4034311; 288702, 4034312;  
288675, 4033890; 287817, 4033909;  
287749, 4034324; 287036, 4034404;  
286997, 4034159; 285045, 4034198;  
284975, 4033638; 283692, 4033635;  
283680, 4033447; 283173, 4033432;  
283131, 4032940; 282611, 4032902;  
282602, 4032584; 282153, 4032565;  
282142, 4030859; 280098, 4030927;  
280150, 4030641; 278815, 4030372;  
278617, 4030219; 278487, 4030027;  
278110, 4029827; 276405, 4029862;  
276365, 4029417; 275713, 4029352;  
275740, 4028644; 275420, 4028617;

275201, 4028124; returning to 274838,  
4027770.

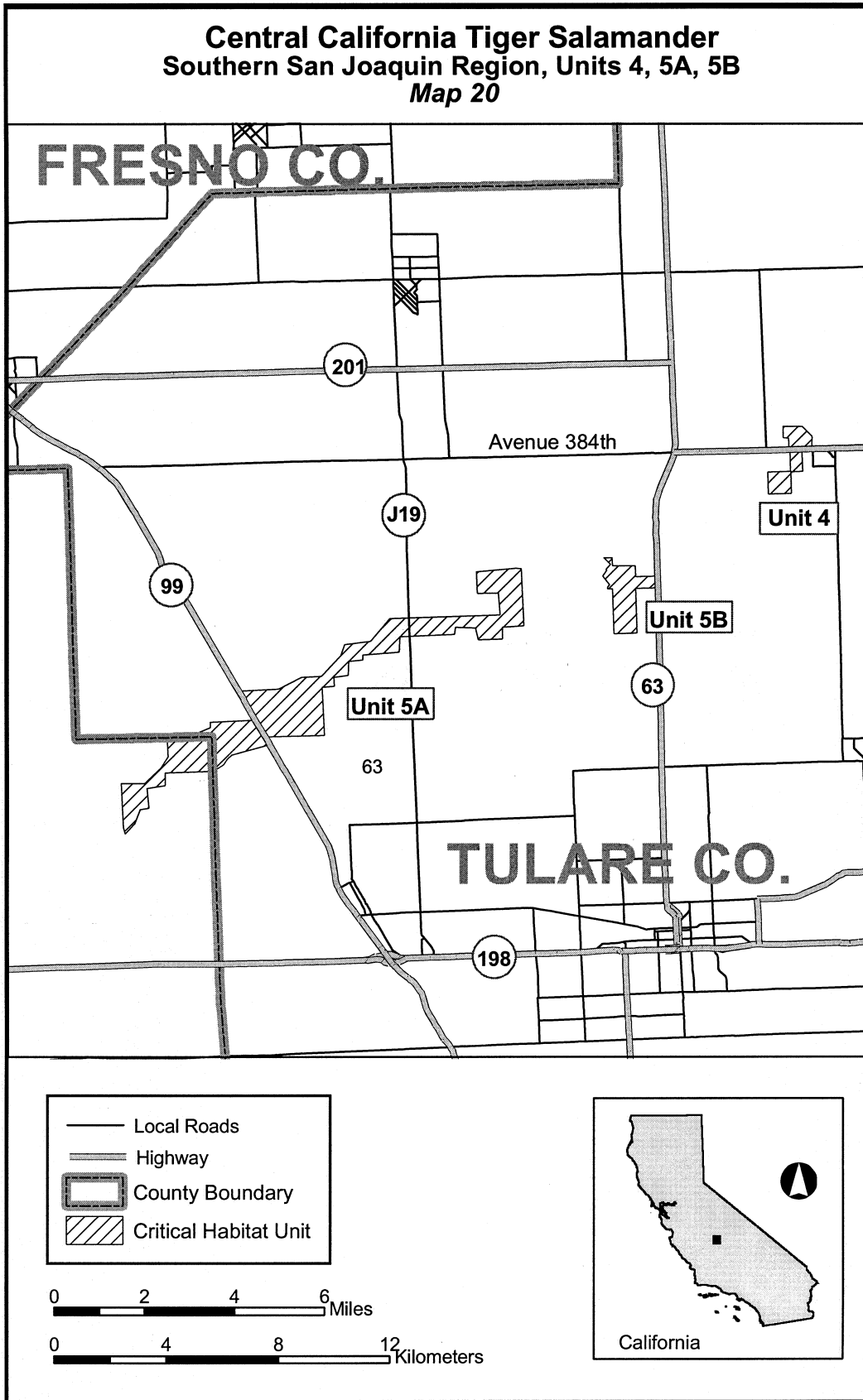
(ii) **Note:** Unit 5A is depicted on Map  
20—Units 4, 5A, and 5B—see paragraph  
(39)(ii).

(39) Southern San Joaquin Region:  
Unit 5B Cottonwood Creek, Tulare  
County, California.

(i) From USGS 1:24,000 quadrangle  
map Monson, California, land bounded  
by the following UTM 11 NAD 27  
coordinates (E, N): 293477, 4033789;  
292652, 4033822; 292702, 4035425;  
292525, 4035436; 292524, 4035481;  
292611, 4035571; 292385, 4035894;  
292524, 4036070; 292516, 4036125;  
292687, 4036292; 292463, 4036546;  
292754, 4036540; 292746, 4036236;  
293550, 4036198; 293546, 4035808;  
294322, 4035767; 294329, 4035350;  
293527, 4035389; returning to 293477,  
4033789.

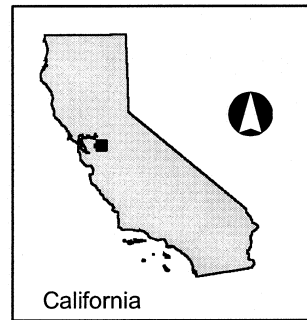
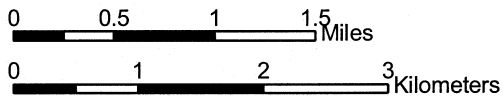
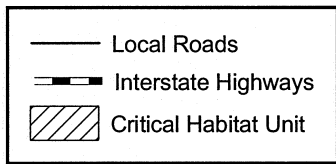
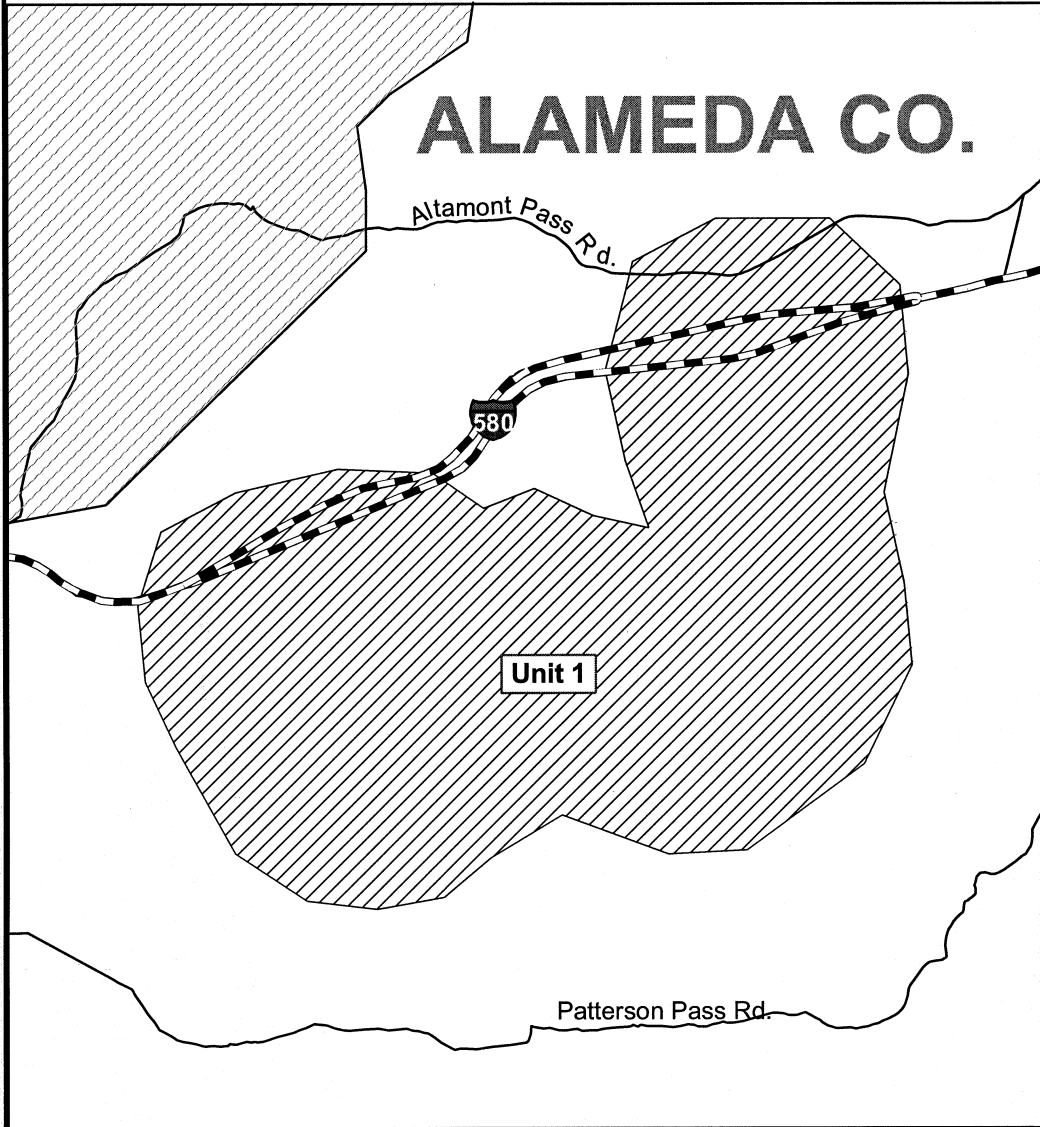
(ii) **Note:** Unit 5B is depicted on Map  
20—Units 4, 5A, and 5B—which  
follows:

### Central California Tiger Salamander Southern San Joaquin Region, Units 4, 5A, 5B Map 20





### Central California Tiger Salamander East Bay Region, Unit 1 Map 21



(41) East Bay Region: Unit 2  
Mendenhall, Alameda County,  
California.

(i) From USGS 1:24,000 quadrangle map Mendenhall Springs, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 616447, 4159080; 616149, 4159080; 615901, 4159209; 615712, 4159239; 615563, 4159358; 615524, 4159487; 615543, 4159596; 615563, 4159696; 615494, 4159864; 615534, 4159963; 615534, 4160093; 615514, 4160231; 615414, 4160301; 615246, 4160331; 615127, 4160380; 615008, 4160440; 614888, 4160509; 614779, 4160559; 614690, 4160618; 614561, 4160609; 614382, 4160579; 614194, 4160638; 614095, 4160708; 613975, 4160827; 613856, 4160877; 613707, 4160966; 613618, 4161105; 613469, 4161184; 613370, 4161224; 613221, 4161234; 613102, 4161323; 613162, 4161641; 613281, 4161730; 613261, 4161849; 613350, 4161978; 613459, 4162077; 613469, 4162226; 613628, 4162494; 613797, 4162703; 613995, 4162812; 614104, 4163010; 614243, 4163050; 614372, 4163139; 614511, 4163129; 614571, 4163070; 614740, 4163080; 614869, 4163050; 615017, 4163020; 615156, 4163040; 615246, 4162881; 615335, 4162792; 615464, 4162713; 615573, 4162663; 615692, 4162643; 615841, 4162653; 615990, 4162584; 616099, 4162524; 616238, 4162464; 616367, 4162455; 616556, 4162395; 616655, 4162335; 616804, 4162296; 616982,

4162276; 617112, 4162177; 617141, 4162127; 617429, 4160321; 617231, 4159576; 616983, 4159318; 616715, 4159140; returning to 616447, 4159080.

(ii) **Note:** Unit 2 is depicted on Map 22—Units 2 and 3—see paragraph (41)(ii).

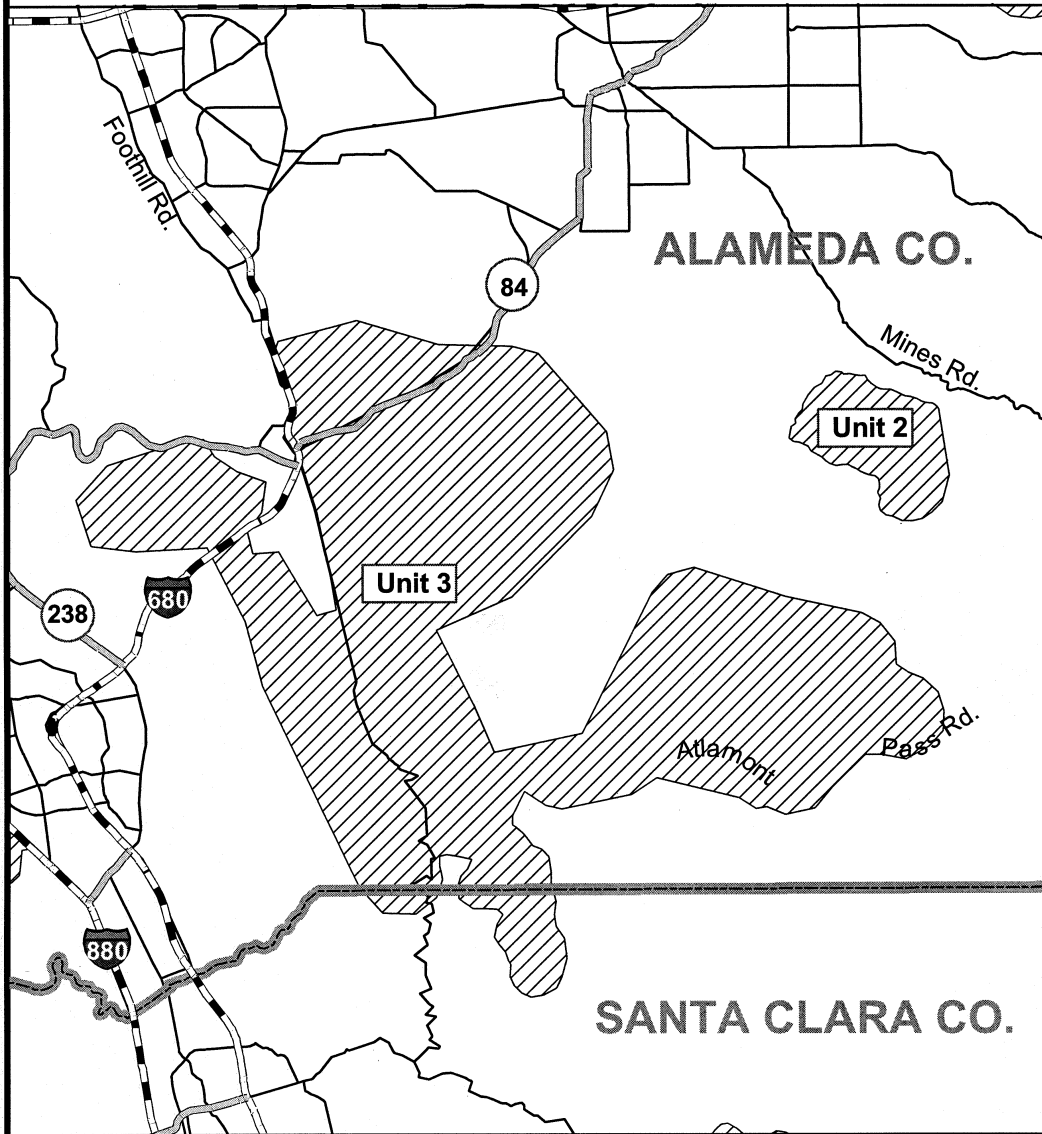
(42) East Bay Region: Unit Alameda Creek, Alameda and Santa Clara Counties, California.

(i) From USGS 1:24,000 quadrangle maps Niles, La Costa Valley, Mendenhall Springs, and Calaveras Reservoir, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 606135, 4146183; 605860, 4146310; 605670, 4146501; 605543, 4146755; 605585, 4147072; 605500, 4147199; 605437, 4147411; 605289, 4147601; 605140, 4147813; 605204, 4148152; 605373, 4148427; 605204, 4148575; 604886, 4148596; 604548, 4148596; 604188, 4148850; 604146, 4149168; 604230, 4149464; 604400, 4149654; 604527, 4149930; 604230, 4149993; 603849, 4150057; 603659, 4150014; 603659, 4149739; 603743, 4149379; 603574, 4148892; 603024, 4148448; 602114, 4148469; 601500, 4149146; 598854, 4154650; 598388, 4156385; 597372, 4158375; 595446, 4158269; 594240, 4158417; 593837, 4159666; 594684, 4160619; 595933, 4161021; 596399, 4161190; 597288, 4161317; 597584, 4160830; 598155, 4160449; 598960, 4160153; 598833, 4159328; 598452, 4158798; 598600, 4158206; 599298, 4158248;

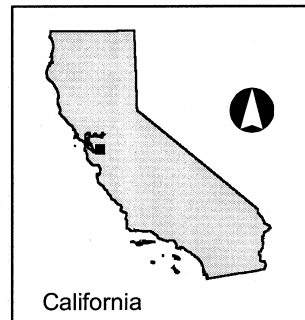
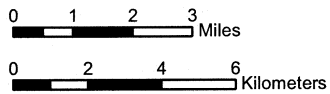
599743, 4157507; 600336, 4156534; 600865, 4156682; 600695, 4157634; 600336, 4159306; 599933, 4160598; 599891, 4161063; 599701, 4161275; 599574, 4161677; 599701, 4162164; 599425, 4163095; 599193, 4163709; 599277, 4163963; 601415, 4164535; 603638, 4163879; 605606, 4163836; 606326, 4163646; 608167, 4161508; 608358, 4160471; 607765, 4159201; 605627, 4157042; 603574, 4156131; 604569, 4154142; 605140, 4152829; 607511, 4153338; 609395, 4157126; 609818, 4157634; 610538, 4157825; 613014, 4157042; 615067, 4156597; 615554, 4156322; 615956, 4155814; 615999, 4155200; 616316, 4154989; 616718, 4154819; 617121, 4154460; 617290, 4153952; 617269, 4153401; 616888, 4152978; 616274, 4152639; 615618, 4152766; 615173, 4152766; 614306, 4151920; 613819, 4151327; 613014, 4151136; 612506, 4151348; 612210, 4151306; 611744, 4151602; 609522, 4152131; 608866, 4151687; 606961, 4151284; 606516, 4151390; 605945, 4151771; 605627, 4151115; 605627, 4150861; 605712, 4150797; 605924, 4150628; 606178, 4150289; 606410, 4150205; 606601, 4149993; 606664, 4149570; 606664, 4149252; 606791, 4148787; 606749, 4148427; 606791, 4148109; 607024, 4147792; 607088, 4147241; 606961, 4146755; 606813, 4146437; 606453, 4146247; returning to 606135, 4146183.

(ii) **Note:** Unit 3 is depicted on Map 22—Units 2 and 3—which follows:

### Central California Tiger Salamander East Bay Region, Units 2, 3 Map 22



	Local Roads
	Highway
	Interstate Highways
	County Boundary
	Critical Habitat Unit



(43) East Bay Region: Unit 4 San Francisco Bay, Alameda County, California.

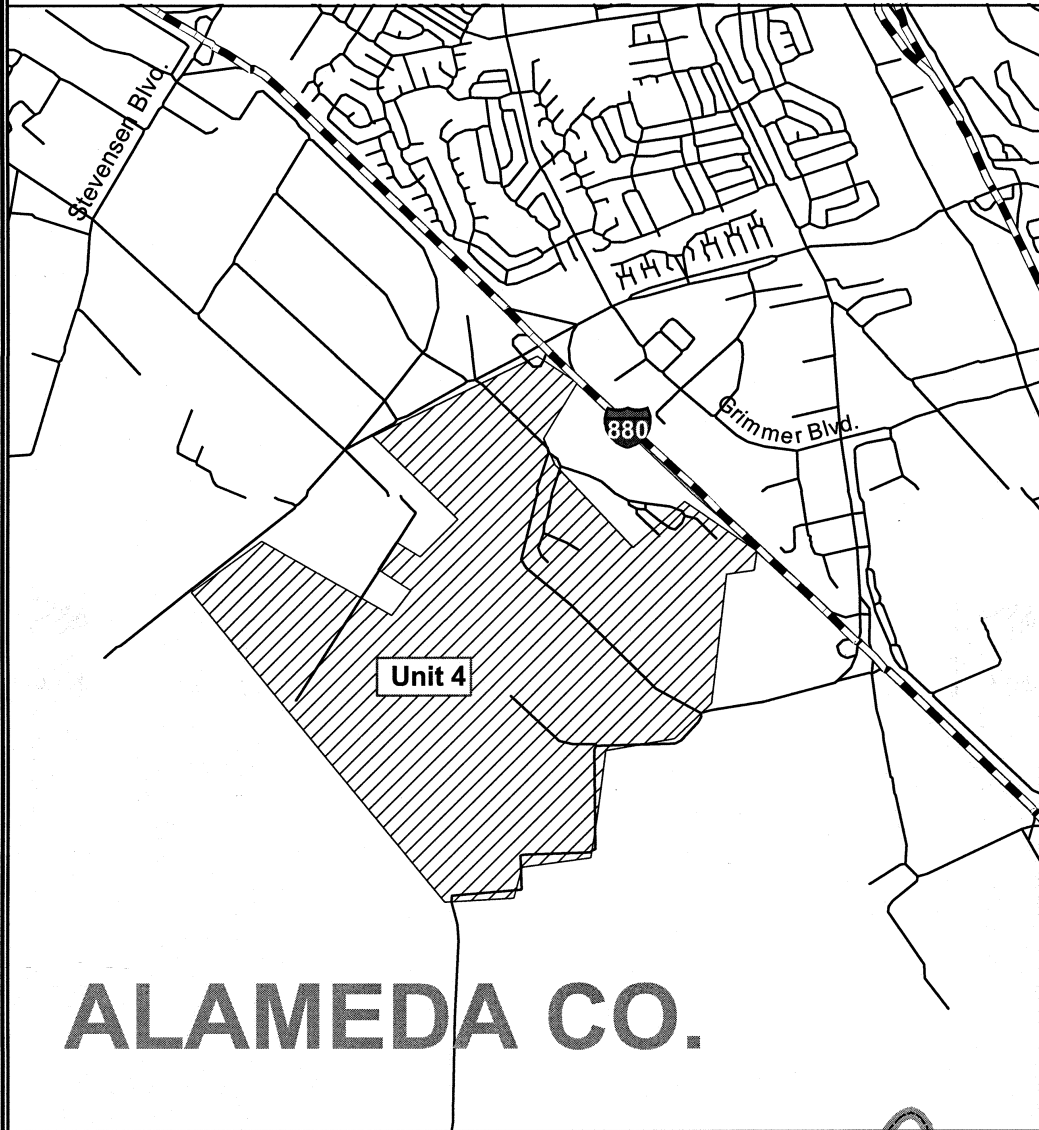
(i) From USGS 1:24,000 quadrangle maps Niles, and Milpitas, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 590833, 4148432; 589465, 4150107; 589845,

4150385; 590548, 4149983; 590650, 4150115; 590475, 4150232; 590570, 4150378; 590701, 4150297; 590906, 4150502; 590445, 4150956; 591330, 4151387; 591550, 4151241; 591367, 4150941; 591426, 4150802; 591850, 4150349; 592128, 4150597; 592516,

4150327; 592501, 4150224; 592355, 4150202; 592274, 4149507; 592077, 4149317; 591704, 4149251; 591660, 4148900; 591623, 4148673; 591250, 4148622; 591206, 4148454; returning to 590833, 4148432.

(ii) **Note:** Unit 4 (Map 23) follows:

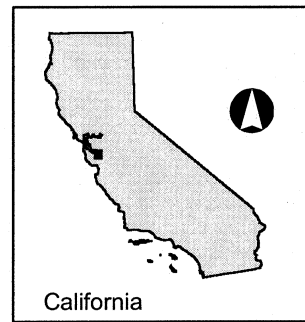
### Central California Tiger Salamander East Bay Region, Unit 4 Map 23



- Local Roads
- Interstate Highways
- ▭ County Boundary
- ▨ Critical Habitat Unit

0 0.5 1 1.5 Miles

0 0.5 1 1.5 Kilometers





(44) East Bay Region: Unit 5 Poverty Ridge, Santa Clara County, California.

(i) From USGS 1:24,000 quadrangle maps Calaveras Reservoir, and Mt. Day, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 613623, 4139261; 613395, 4139338; 613177, 4139403; 613079, 4139490; 612905, 4139577; 612709, 4139555; 612601, 4139664; 612535, 4139751; 612350, 4139697; 612187, 4139795; 612067, 4139871; 611001, 4139544; 610305, 4139653; 609684, 4140350; 609717, 4140992; 610032, 4141459; 610511, 4141753; 610794, 4141829; 610860, 4142199; 610947, 4142374; 611121, 4142580; 611273, 4142722; 611436, 4142754; 611708, 4142602; 611980, 4142374; 612089, 4142210; 612176, 4142156; 612350, 4142232; 612514, 4142363; 612666, 4142482; 612764, 4142548; 612992, 4142515; 613254, 4142417; 613471, 4142287; 613656, 4142069; 613721, 4141917; 613765, 4141753; 613874, 4141623; 614059, 4141460; 614276, 4141209; 614342, 4140926; 614429, 4140654; 614363, 4140317; 614396, 4140099; 614287, 4139795; 614157, 4139599; 613928, 4139403; 613787, 4139283; returning to 613623, 4139261.

(ii) **Note:** Unit 5 is depicted on Map 24—Units 5, 6, 7, and 8—see paragraph (47)(ii).

(45) East Bay Region: Unit 6 Smith Creek, Santa Clara County, California.

(i) From USGS 1:24,000 quadrangle maps Lick Observatory, and Isabell Valley, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 618437, 4130695; 617379, 4130761; 616784, 4131356; 616585, 4132216; 615990, 4132679; 614865, 4133010; 614072, 4132811; 613344, 4132811; 612617, 4132943; 611889,

4133340; 611294, 4134002; 611227, 4134862; 612153, 4135457; 613146, 4135589; 613807, 4135656; 614733, 4135589; 615725, 4135457; 616122, 4135060; 616254, 4134663; 616651, 4134200; 617379, 4134002; 617842, 4133605; 618636, 4133804; 619165, 4134399; 620157, 4135457; 621017, 4135656; 621943, 4135590; 622538, 4135259; 623001, 4134465; 622538, 4133936; 622274, 4133341; 621480, 4132481; 620885, 4132150; 620422, 4131621; 619760, 4130959; 619099, 4130893; returning to 618437, 4130695.

(ii) **Note:** Unit 6 is depicted on Map 24—Units 5, 6, 7, and 8—see paragraph (47)(ii).

(46) East Bay Region: Unit 7 San Felipe Creek, Santa Clara County, California.

(i) From USGS 1:24,000 quadrangle maps Lick Observatory, Isabell Valley, and Morgan Hill, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 617313, 4118722; 616651, 4118722; 616255, 4119053; 615659, 4119847; 615196, 4120839; 614733, 4121831; 614799, 4122559; 615328, 4123022; 615725, 4123485; 615990, 4124146; 616122, 4124741; 616321, 4124874; 616585, 4126461; 616850, 4126990; 617313, 4127453; 617974, 4127453; 618900, 4126924; 619496, 4126263; 619892, 4126131; 621149, 4126263; 621678, 4126197; 622737, 4126395; 623530, 4126395; 624060, 4125932; 624192, 4125271; 624192, 4124675; 623729, 4124080; 623795, 4123485; 622671, 4123220; 621480, 4123551; 620752, 4124014; 619892, 4124345; 619297, 4123882; 618636, 4122889; 618173, 4121897; 618239, 4120640; 618107, 4119582; returning to 617313, 4118722.

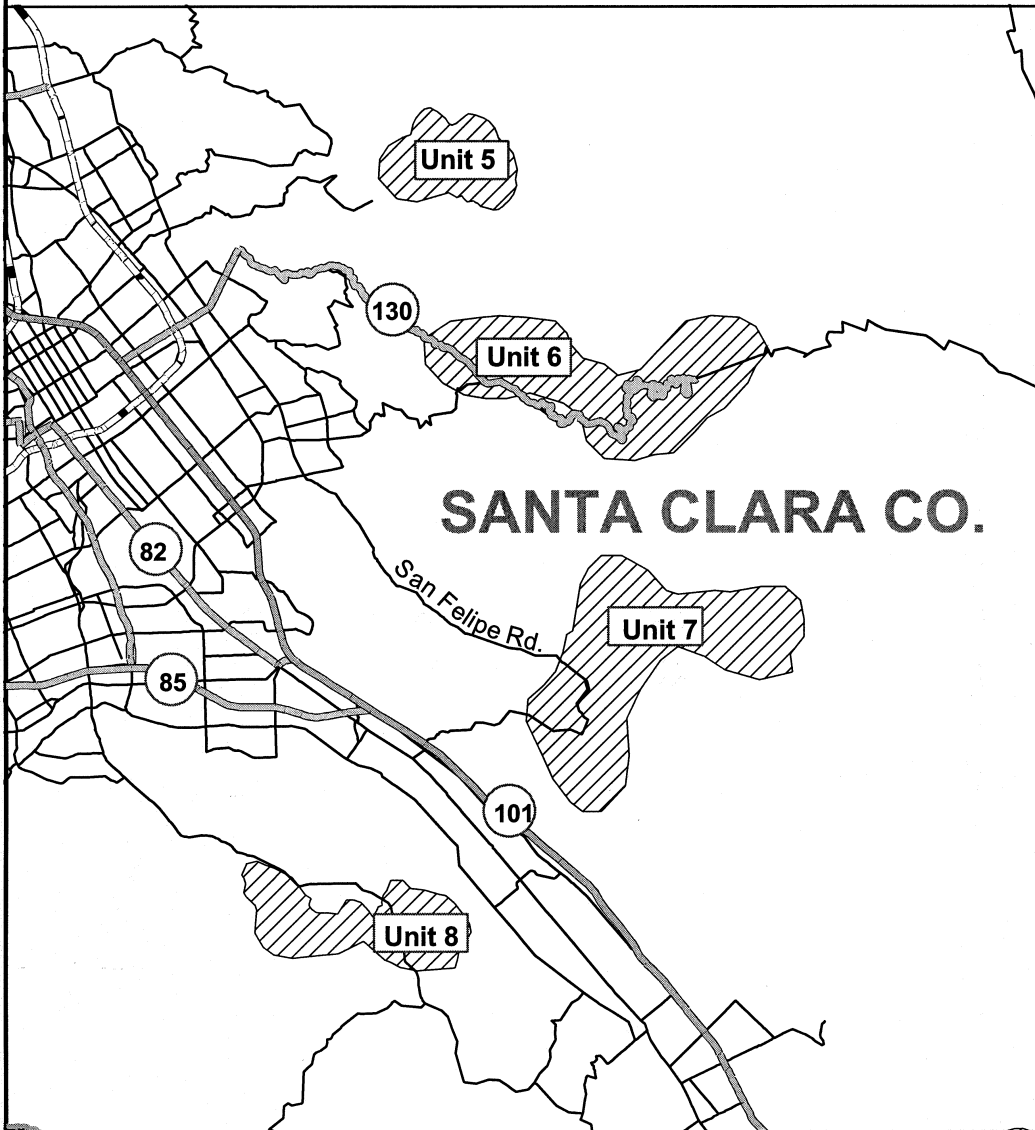
(ii) **Note:** Unit 7 is depicted on Map 24—Units 5, 6, 7, and 8—see paragraph (47)(ii).

(47) East Bay Region: Unit 8 Laurel Hill, Santa Clara County, California.

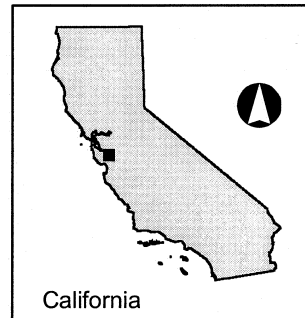
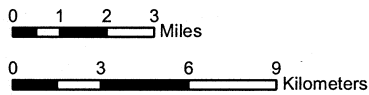
(i) From USGS 1:24,000 quadrangle maps Santa Teresa Hills, and Morgan Hill, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 611014, 4113296; 610439, 4113395; 610141, 4113573; 609903, 4113653; 609189, 4114288; 608335, 4113871; 607680, 4113812; 606787, 4113712; 606133, 4113831; 605795, 4114070; 605498, 4114566; 605517, 4114883; 605557, 4115359; 605498, 4115518; 605220, 4115796; 605121, 4115955; 605180, 4116252; 605121, 4116451; 605041, 4116570; 605220, 4116947; 605577, 4117026; 605855, 4116907; 606172, 4116788; 606490, 4116629; 606768, 4116471; 606926, 4116252; 607204, 4115875; 607403, 4115756; 607343, 4115578; 607343, 4115498; 607442, 4115379; 607561, 4115280; 607680, 4115260; 607879, 4115260; 607998, 4115260; 608315, 4115220; 608613, 4115717; 608831, 4115717; 609069, 4115637; 609208, 4115498; 609387, 4115300; 609506, 4115141; 609625, 4115340; 609685, 4115478; 609823, 4115518; 609804, 4115637; 609863, 4115856; 609962, 4116014; 610121, 4116391; 610518, 4116391; 610697, 4116193; 610816, 4116094; 611173, 4116074; 611332, 4116034; 611788, 4115895; 612006, 4115856; 612324, 4115578; 612483, 4115000; 4115359; 612701, 4115082; 612800, 4114903; 612860, 4114586; 612681, 4114268; 612423, 4113931; 612403, 4113732; 612324, 4113375; returning to 611014, 4113296.

(ii) **Note:** Unit 8 is depicted on Map 24—Units 5, 6, 7, and 8—which follows:

### Central California Tiger Salamander East Bay Region, Units 5, 6, 7, 8 Map 24



— Local Roads  
— Highway  
▨ Critical Habitat Unit



(48) East Bay Region: Unit 9 Cebata Flat, Santa Clara County, California.

(i) From USGS 1:24,000 quadrangle map Gilroy, California, land bounded by the following UTM 10 NAD 27

coordinates (E, N): 631693, 4101865; 631375, 4101885; 631078, 4102024; 630740, 4102282; 630562, 4102718; 630562, 4103115; 630641, 4103472; 630919, 4103770; 631157, 4104008; 631316, 4104127; 631514, 4104425; 631514, 4104564; 631197, 4104782; 631018, 4104981; 630621, 4105477; 630443, 4105913; 630403, 4106310; 630284, 4106588; 630125, 4107084; 630363, 4107362; 630562, 4107461; 630800, 4107640; 631117, 4107818; 631395, 4107878; 631704, 4107878; 632099, 4107740; 632464, 4107483; 632602, 4107167; 632701, 4106821; 633017, 4105626; 633086, 4105093; 632800, 4104520; 632602, 4104214; 632583, 4103789; 632800, 4103335; 632839, 4102960; 632760, 4102683; 632662, 4102485; 632464, 4102209; 632189, 4101925; 631812, 4101925; returning to 631693, 4101865.

(ii) **Note:** Unit 9 is depicted on Map 25—Units 9, 10, 11, and 12—see paragraph (51)(ii).

(49) East Bay Region: Unit 10 Lions Creek, Santa Clara County, California.

(i) From USGS 1:24,000 quadrangle maps Mt. Madonna, and Gilroy, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 622609, 4100206; 622423,

4100225; 622158, 4100421; 621972, 4100735; 621776, 4100941; 621540, 4101059; 621285, 4101068; 621119, 4101157; 620883, 4101323; 620874, 4101510; 620981, 4101725; 621070, 4101931; 620991, 4102079; 620795, 4102226; 620629, 4102314; 620491, 4102647; 620570, 4102951; 620540, 4103118; 620511, 4103245; 620658, 4103736; 620589, 4103834; 620550, 4104000; 620736, 4104128; 620972, 4104206; 621080, 4104265; 621197, 4104295; 621334, 4104383; 621511, 4104530; 621707, 4104658; 621903, 4104707; 622168, 4104510; 622521,

4104354; 622629, 4104059; 622580, 4103873; 622570, 4103687; 622599, 4103530; 622580, 4103314; 622560, 4103118; 622433, 4103049; 622295, 4102971; 622217, 4102853; 622207, 4102667; 622325, 4102451; 622472, 4102324; 622698, 4102245; 622884, 4102137; 623031, 4101961; 623109, 4101735; 623178, 4101441; 623217, 4101167; 623227, 4100784; 623129, 4100608; 622992, 4100559; 622854, 4100461; 622688, 4100304; returning to 622609, 4100206.

(ii) **Note:** Unit 10 is depicted on Map 25—Units 9, 10, 11, and 12—see paragraph (51)(ii).

(50) East Bay Region: Unit 11 Braen Canyon, Santa Clara County, California.

(i) From USGS 1:24,000 quadrangle map Gilroy Hot Spring, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 640950, 4099879; 640184, 4099983; 639836, 4100401; 639523, 4101062; 639627, 4101724; 639418, 4102072; 639000, 4102490; 638513, 4102803; 637956, 4103325; 637225, 4103708; 637086, 4103952; 636947, 4104787; 637016, 4105170; 637225, 4105483; 637678, 4106075; 638235, 4106388; 638722, 4106249; 639105, 4106179; 639488, 4106110; 639871, 4105831; 640254, 4105727; 640602, 4105727; 641124, 4106075; 641367, 4105866; 641646, 4105274; 641820, 4104996; 642481, 4104822; 642690, 4104474; 642725, 4103986; 642899, 4103534; 642864, 4102942; 643317, 4102420; 643943, 4102281; 644500, 4101480; 644152, 4101341; 643943, 4101167; 643839, 4100436; 643351, 4099983; 642725, 4099983; 642064, 4100192; 641472, 4100018; returning to 640950, 4099879.

(ii) **Note:** Unit 11 is depicted on Map 25—Units 9, 10, 11, and 12—see paragraph (51)(ii).

(51) East Bay Region: Unit 12 San Felipe, Santa Clara and San Benito Counties, California.

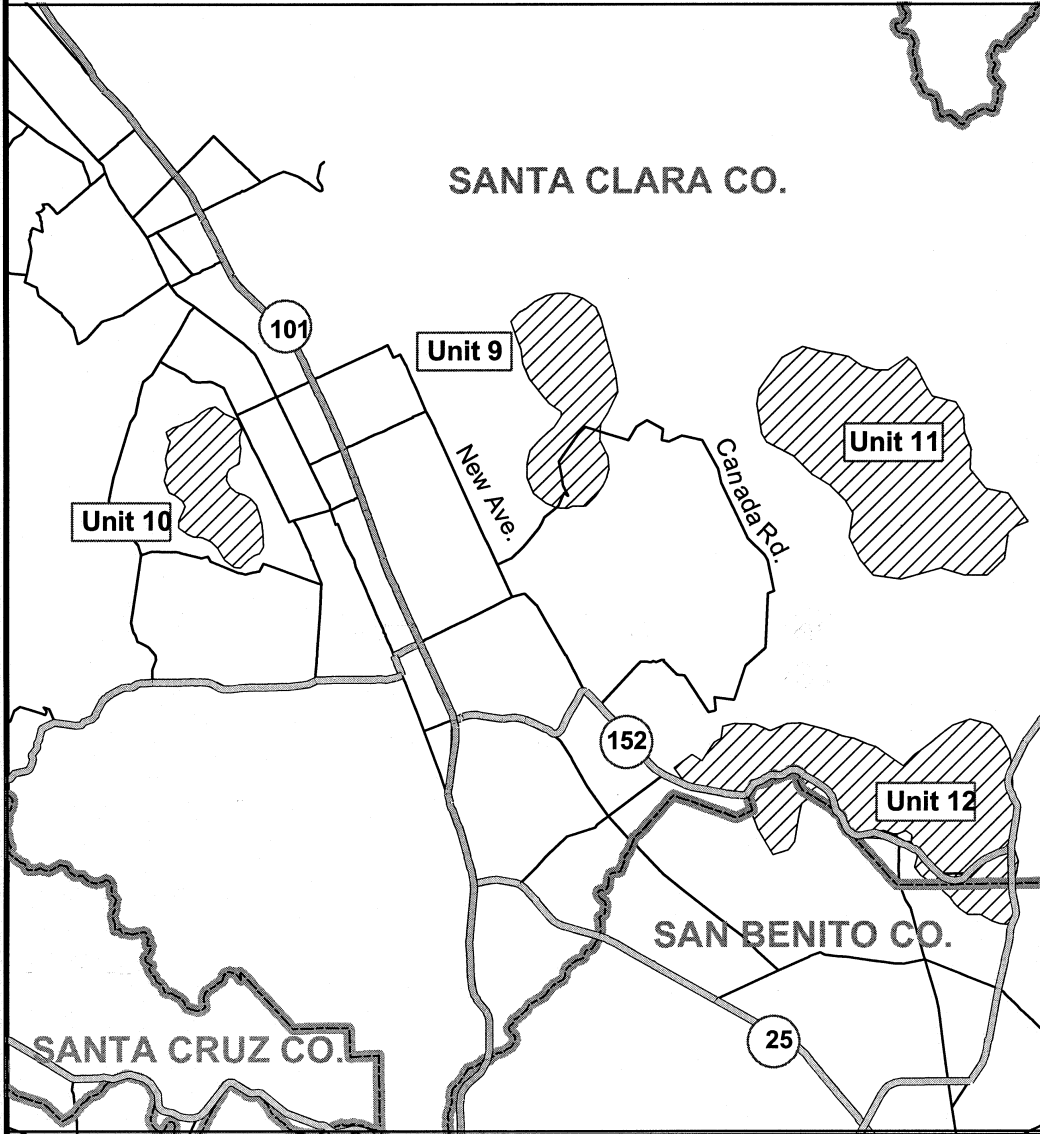
(i) From USGS 1:24,000 quadrangle maps Gilroy Hot Spring, and San Filipe, California, land bounded by the

following UTM 10 NAD 27 coordinates (E, N): 643926, 4090258; 643737,

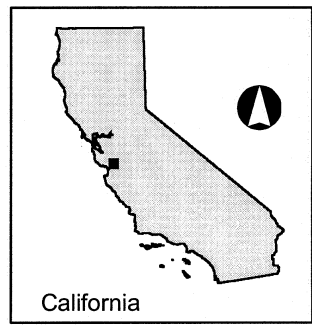
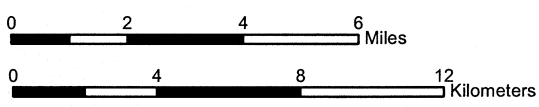
4090279; 643461, 4090364; 643165, 4090533; 642805, 4090533; 642594, 4090682; 642467, 4090830; 642318, 4091020; 642086, 4091232; 641832, 4091423; 641514, 4091613; 641324, 4091867; 641408, 4092121; 641429, 4092354; 641239, 4092460; 641260, 4092756; 641091, 4092883; 641089, 4092882; 640879, 4092798; 640625, 4092798; 640624, 4092798; 640623, 4092798; 640476, 4092650; 640138, 4092671; 639863, 4092693; 639567, 4092735; 639511, 4092788; 639417, 4092882; 639269, 4093242; 639219, 4093294; 639142, 4093449; 639049, 4093736; 638948, 4093984; 638676, 4094152; 638507, 4094025; 638452, 4093876; 638422, 4093793; 638205, 4093627; 638150, 4093372; 638119, 4093186; 638011, 4092566; 637841, 4092349; 637406, 4092206; 636981, 4092946; 636640, 4093837; 634982, 4094177; 634649, 4094642; 635153, 4095006; 635432, 4094844; 635772, 4095355; 635966, 4095463; 636012, 4095796; 636315, 4095866; 636911, 4095858; 637342, 4095676; 637808, 4095867; 638189, 4095888; 638930, 4095698; 639332, 4095528; 639650, 4095465; 640009, 4095317; 640242, 4095232; 640687, 4094914; 641025, 4094682; 641027, 4094682; 641345, 4095021; 641578, 4095169; 641768, 4095317; 642064, 4095571; 642403, 4095825; 642867, 4095994; 643438, 4095846; 643756, 4095486; 643968, 4095084; 644010, 4094809; 643989, 4094576; 643925, 4094174; 644052, 4093750; 644158, 4093412; 644179, 4093052; 644116, 4092671; 644116, 4092353; 644222, 4092015; 644179, 4091739; 644116, 4091464; 644103, 4091403; 644073, 4091253; 644010, 4090977; 644095, 4090723; 644116, 4090427; returning to 643926, 4090258.

(ii) **Note:** Unit 12 is depicted on Map 25—Units 9, 10, 11, and 12—which follows:

### Central California Tiger Salamander East Bay Region, Units 9, 10, 11, 12 Map 25



	Local Roads
	Highway
	County Boundary
	Critical Habitat Unit



(52) East Bay Region: Unit 13 Los Banos, Merced County, California.

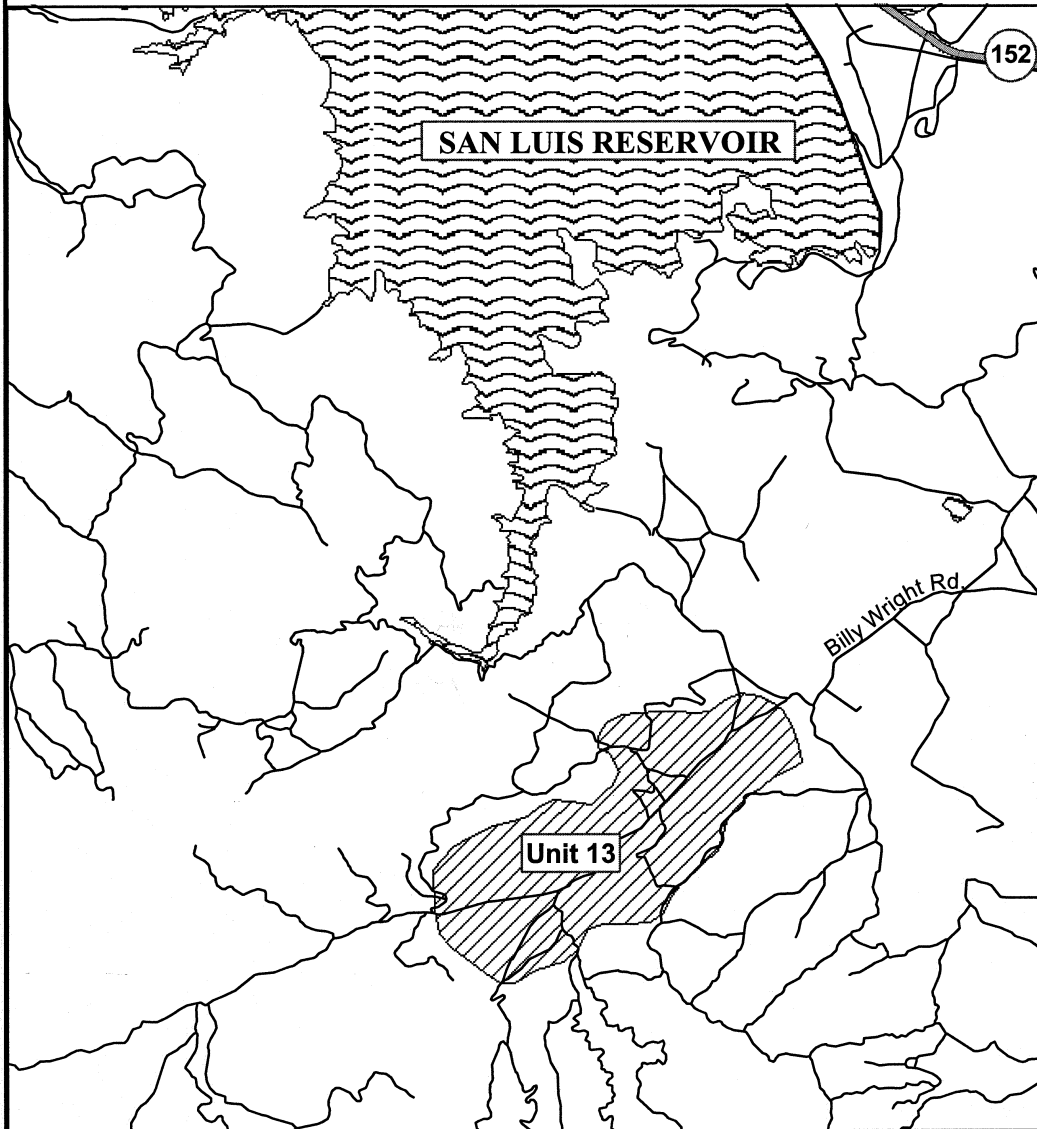
(i) From USGS 1:24,000 quadrangle maps Mariposa Peak, and Los Banos Valley, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 666982, 4090221; 666778, 4090372; 666306, 4090726; 666155, 4090908; 666091, 4091241; 666059, 4091778; 666327, 4092089; 666552, 4092229; 666896, 4092390; 667153, 4092465; 667368, 4092529; 667497, 4092636; 667712, 4092744; 667969,

4092733; 668248, 4092679; 668452, 4092883; 668517, 4092926; 668624, 4093130; 668495, 4093366; 668323, 4093474; 668323, 4093613; 668452, 4093796; 668678, 4093924; 668882, 4093935; 668967, 4093935; 669085, 4093957; 669268, 4093957; 669429, 4093957; 669654, 4093946; 669858, 4093967; 670051, 4094118; 670277, 4094203; 670534, 4094150; 670685, 4094096; 670835, 4093989; 670974, 4093763; 671060, 4093495; 671114, 4093259; 670985, 4093162; 670728,

4093066; 670545, 4092905; 670395, 4092808; 670266, 4092669; 670105, 4092508; 669966, 4092046; 669740, 4091842; 669483, 4091606; 669343, 4091413; 669236, 4091187; 669042, 4091059; 668731, 4091037; 668409, 4091037; 668195, 4090973; 668044, 4090672; 667851, 4090533; 667475, 4090415; 667186, 4090232; returning to 666982, 4090221.

(ii) **Note:** Unit 13 (Map 26) follows:

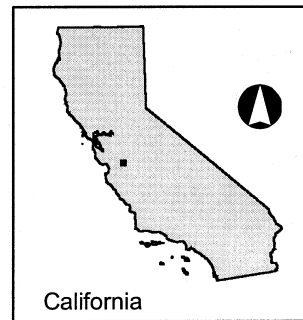
### Central California Tiger Salamander East Bay Region, Unit 13 Map 26



- Local Roads
- Highway
- ▨ Critical Habitat Unit
- ▤ Reservoir

0 1 2 3 Miles

0 1 2 3 Kilometers



(53) East Bay Region: Unit 14  
Landgon, Merced County, California.

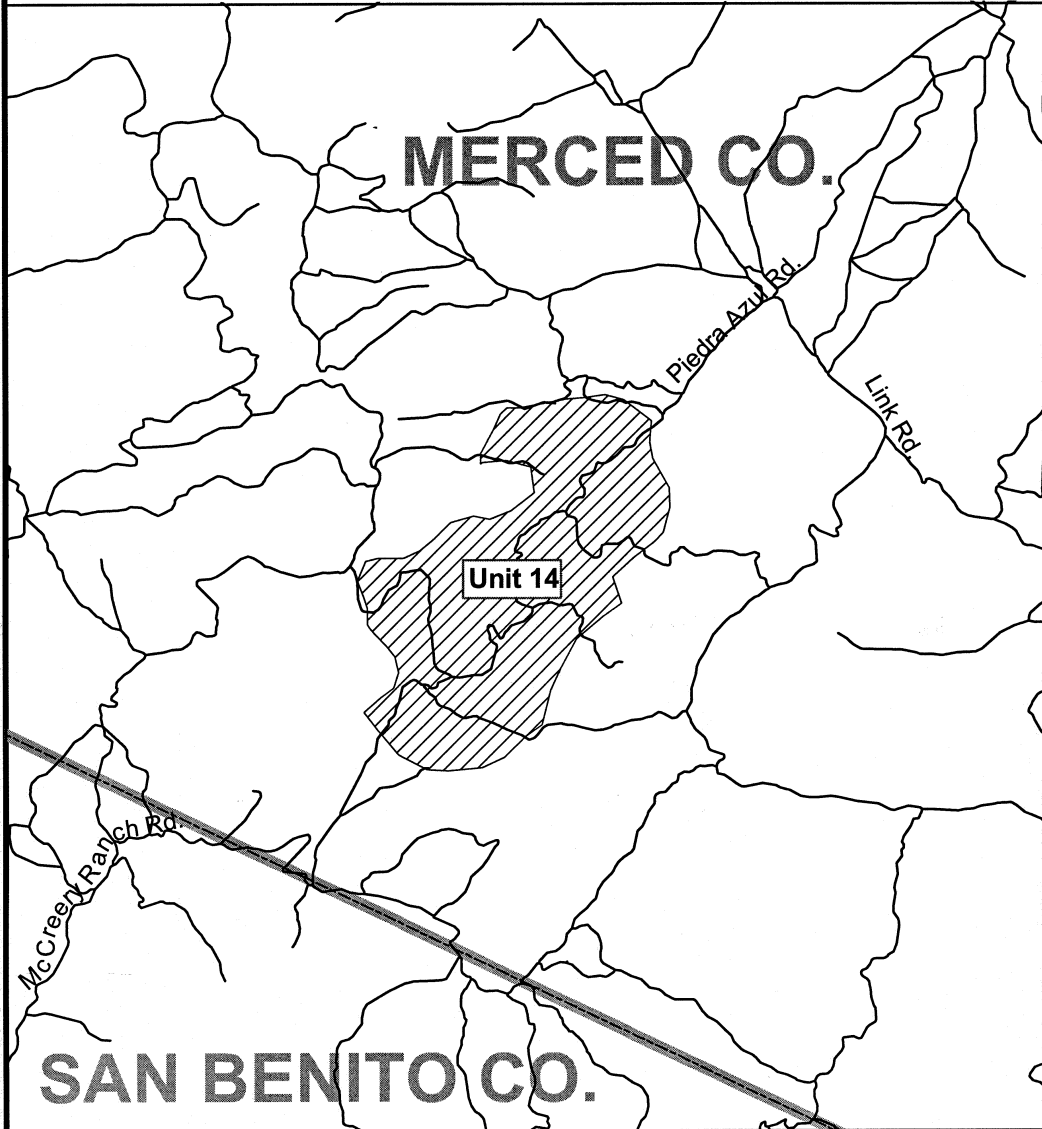
(i) From USGS 1:24,000 quadrangle maps Ruby Canyon, and Ortigalita Peak, California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 677084, 4074804; 676837, 4074821; 676504, 4074992; 676256, 4075282; 676103, 4075487; 676308, 4075666; 676444, 4075768; 676504, 4075948; 676461, 4076135; 676367, 4076246; 676214, 4076408; 676180, 4076451; 676137, 4076511; 676137,

4076690; 676094, 4076835; 676026, 4077014; 676120, 4077245; 676265, 4077279; 676564, 4077279; 676760, 4077373; 676931, 4077509; 677110, 4077697; 677374, 4077774; 677571, 4077731; 677827, 4077834; 678083, 4078039; 678049, 4078346; 677759, 4078423; 677485, 4078397; 677460, 4078380; 677460, 4078500; 677605, 4078773; 677690, 4078960; 677776, 4079037; 677921, 4079037; 678117, 4079071; 678467, 4079140; 678680, 4079157; 678911, 4079191; 679124,

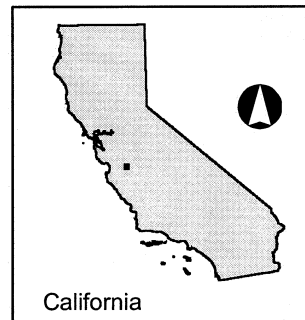
4079131; 679448, 4078884; 679440, 4078730; 679431, 4078628; 679465, 4078448; 679653, 4078107; 679662, 4077868; 679585, 4077578; 679491, 4077475; 679244, 4077288; 678996, 4077057; 679098, 4076750; 678894, 4076605; 678578, 4076340; 678390, 4075990; 678279, 4075751; 678177, 4075342; 677989, 4075205; 677741, 4074966; 677477, 4074847; returning to 677084, 4074804.

(ii) **Note:** Unit 14 (Map 27) follows:

### Central California Tiger Salamander East Bay Region, Unit 14 Map 27



	Local Roads
	County Boundary
	Critical Habitat Unit





(54) East Bay Region: Unit 15 Ana Creek, San Benito County, California.

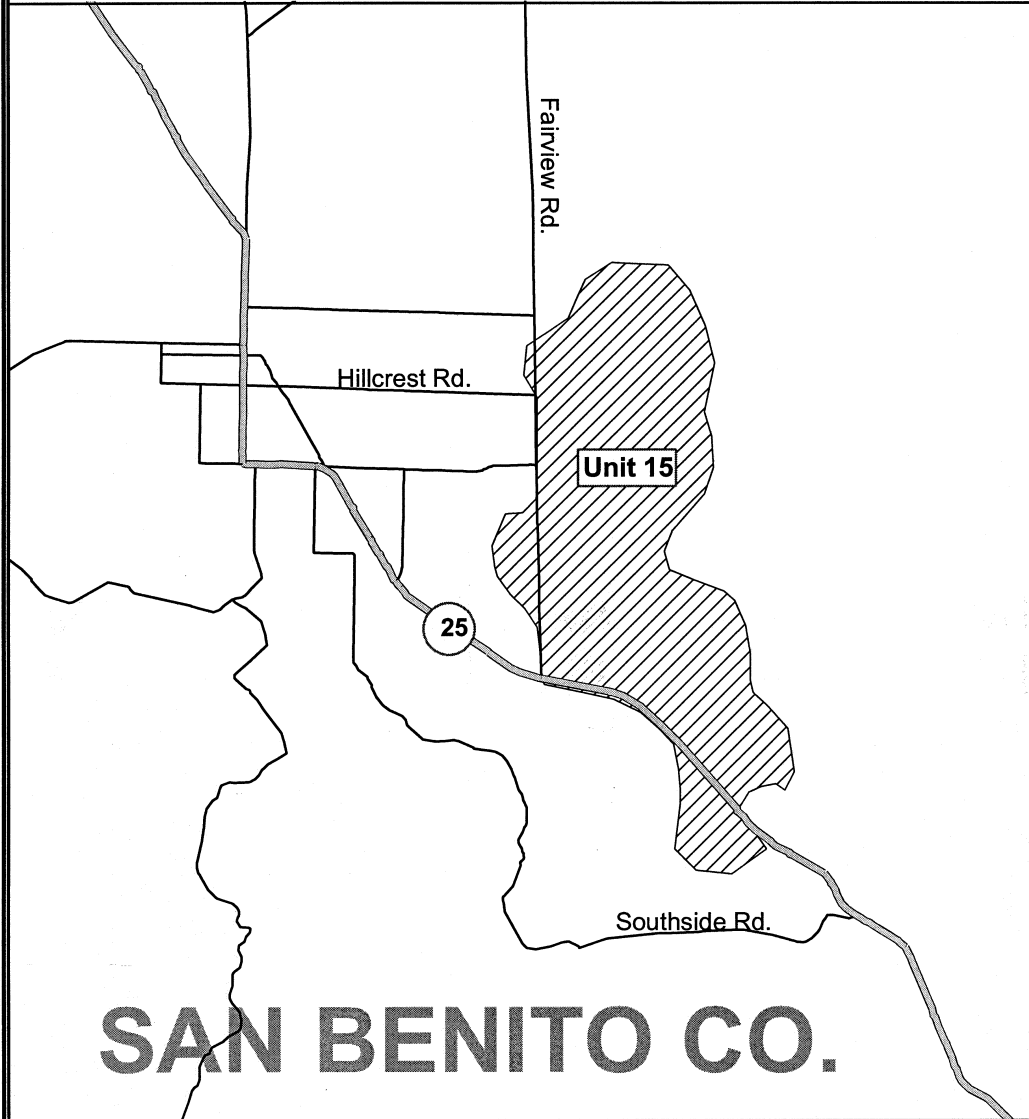
(i) From USGS 1:24,000 quadrangle map Tres Pinos California, land bounded by the following UTM 10 NAD 27 coordinates (E, N): 648335, 4073256; 647913, 4073303; 647662, 4073554; 647725, 4074086; 647725, 4074274; 647709, 4074493; 647646, 4074791; 647490, 4074963; 647255, 4075167; 646942, 4075323; 646597, 4075402; 646127, 4075496; 646096, 4075605; 646080, 4075918; 646049, 4076169; 645908, 4076388; 645736, 4076545;




645579, 4076764; 645548, 4076874; 645516, 4077124; 645673, 4077500; 645877, 4077516; 646033, 4077672; 646049, 4077782; 646049, 4077986; 646049, 4078299; 646049, 4078612; 646049, 4078878; 645892, 4079144; 645924, 4079489; 646205, 4079677; 646409, 4079818; 646519, 4080068; 646613, 4080272; 646926, 4080476; 647176, 4080460; 647584, 4080444; 647834, 4080147; 648022, 4079724; 648132, 4079285; 648006, 4078706; 648100, 4078408; 648116, 4078048;

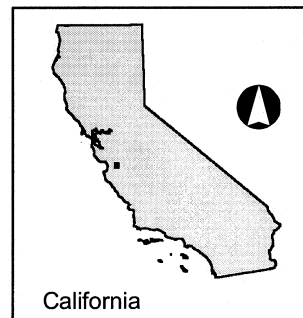
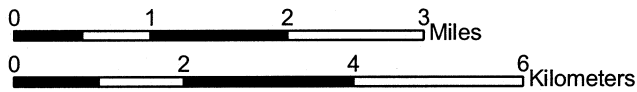
648006, 4077735; 647834, 4077531; 647631, 4077296; 647537, 4077062; 647599, 4076842; 647865, 4076733; 648241, 4076592; 648367, 4076482; 648492, 4076185; 648555, 4075856; 648555, 4075543; 648586, 4075402; 648758, 4075245; 648993, 4074979; 649071, 4074462; 648962, 4074243; 648852, 4074321; 648680, 4074290; 648539, 4074227; 648414, 4074023; 648742, 4073554; returning to 648335, 4073256.

(ii) **Note:** Unit 15 (Map 28) follows:

### Central California Tiger Salamander East Bay Region, Unit 15 Map 28



	Local Roads
	Highway
	Critical Habitat Unit



(55) East Bay Region: Unit 16  
Bitterwater, San Benito County,  
California.

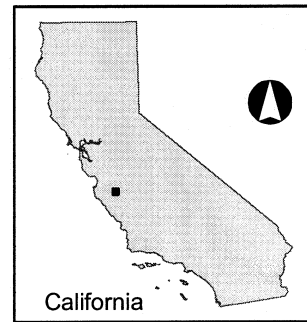
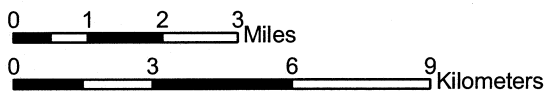
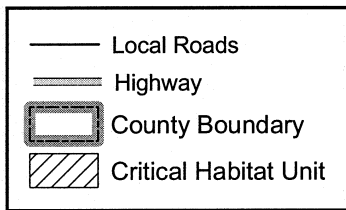
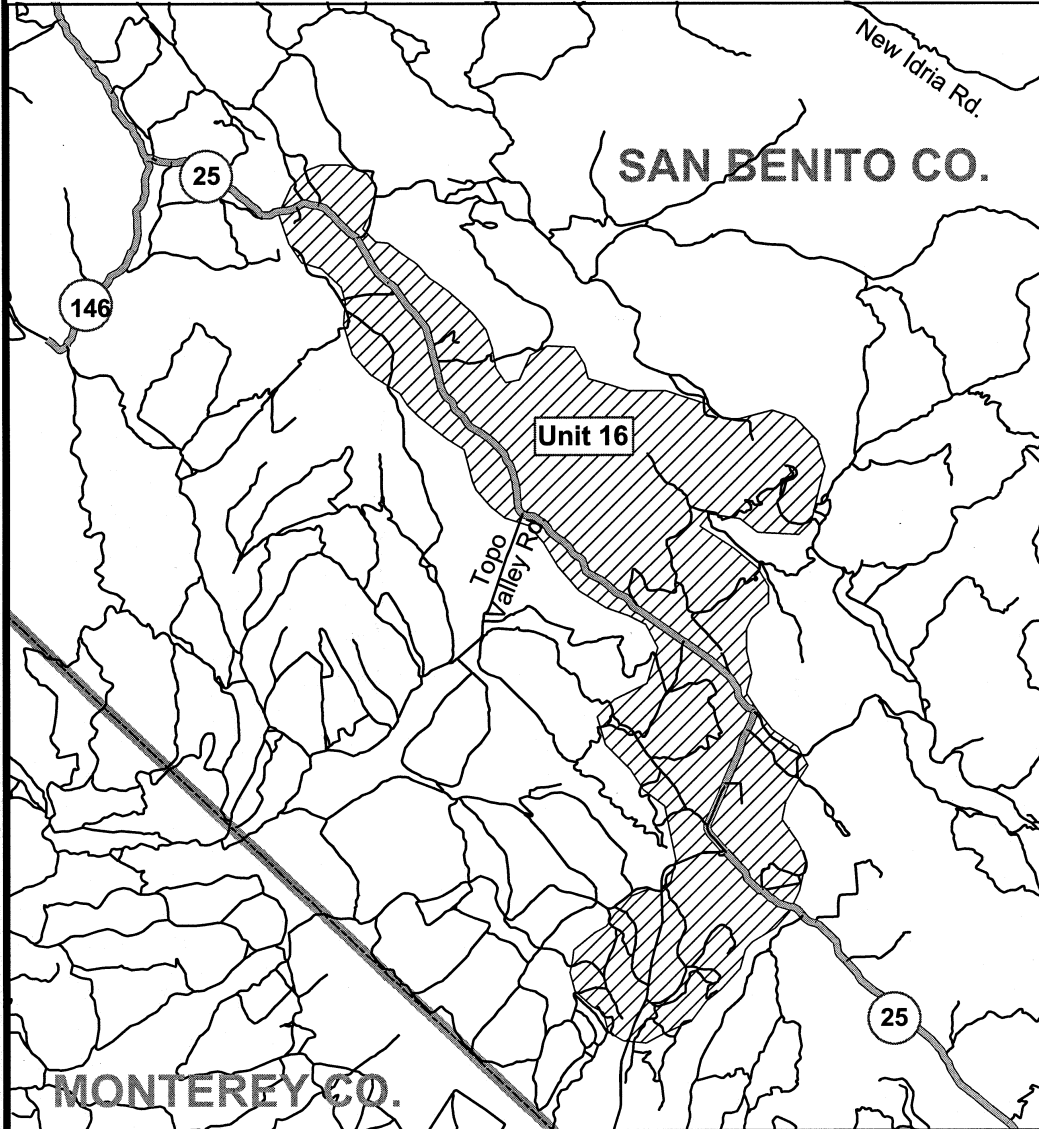
(i) From USGS 1:24,000 quadrangle  
maps San Benito, Topo Valley, Rock  
Spring Peak, Pinalito Canyon, and  
Lonoak, California, land bounded by the  
following UTM 10 NAD 27 coordinates  
(E, N): 677680, 4023667; 677177,  
4023720; 676860, 4023905; 676754,  
4024328; 676516, 4024461; 676146,  
4024805; 676040, 4025202; 676093,  
4025466; 676119, 4025678; 676595,  
4026075; 676833, 4026207; 677019,  
4026472; 677151, 4026577; 677389,  
4026868; 677733, 4027001; 677971,  
4026948; 678209, 4027160; 678315,  
4027636; 678156, 4028429; 678077,  
4028800; 677627, 4029144; 677363,  
4029567; 676807, 4030123; 676622,  
4030731; 677019, 4031102; 677707,  
4031446; 677945, 4032213; 677680,  
4032716; 677310, 4032901; 676807,  
4033086; 676251, 4033430; 675802,  
4033959; 675484, 4034488; 675167,

4034859; 674637, 4035017; 674346,  
4035256; 674029, 4035626; 673950,  
4035811; 673764, 4036499; 673420,  
4036711; 673156, 4036922; 672785,  
4037213; 672547, 4037452; 672389,  
4037716; 671754, 4038113; 671357,  
4038563; 671172, 4039198; 671198,  
4039700; 671119, 4040018; 670695,  
4040415; 670272, 4040547; 669981,  
4040970; 669769, 4041605; 670034,  
4042187; 670404, 4042558; 670695,  
4042664; 671224, 4042664; 671674,  
4042479; 671886, 4042188; 671806,  
4041711; 671595, 4041288; 671859,  
4040997; 672124, 4040970; 672441,  
4040732; 672759, 4040521; 673024,  
4040203; 673156, 4040124; 673447,  
4039912; 673950, 4039462; 674241,  
4039092; 674373, 4038695; 674452,  
4038272; 674664, 4037954; 674955,  
4038007; 675193, 4038536; 675563,  
4038748; 676145, 4038722; 676357,  
4038351; 676437, 4038034; 676886,  
4037901; 677310, 4037769; 677759,  
4037769; 678103, 4037769; 679003,

4037478; 679347, 4037161; 679717,  
4037161; 680405, 4037346; 680908,  
4037187; 681384, 4036684; 681543,  
4036129; 681411, 4035626; 681252,  
4034912; 680987, 4034647; 680088,  
4034700; 679717, 4034991; 679056,  
4035097; 678844, 4034832; 679585,  
4034356; 680088, 4033933; 680326,  
4033536; 680326, 4033166; 679955,  
4032848; 679850, 4032610; 679850,  
4032134; 679955, 4031657; 679850,  
4031234; 680088, 4030864; 680405,  
4030440; 680961, 4030070; 681172,  
4029673; 680987, 4029382; 680696,  
4028879; 680617, 4028509; 680961,  
4028006; 681146, 4027636; 680987,  
4026948; 680776, 4026498; 680485,  
4026154; 679982, 4025863; 679823,  
4025678; 679717, 4025281; 679294,  
4024831; 678977, 4024567; 678659,  
4024143; 678077, 4023879; returning to  
677680, 4023667.

(ii) **Note:** Unit 16 (Map 29) follows:

### Central California Tiger Salamander East Bay Region, Unit 16 Map 29



(56) Central Coast Region: Unit 1  
Crazy Horse Canyon, Monterey County,  
California.

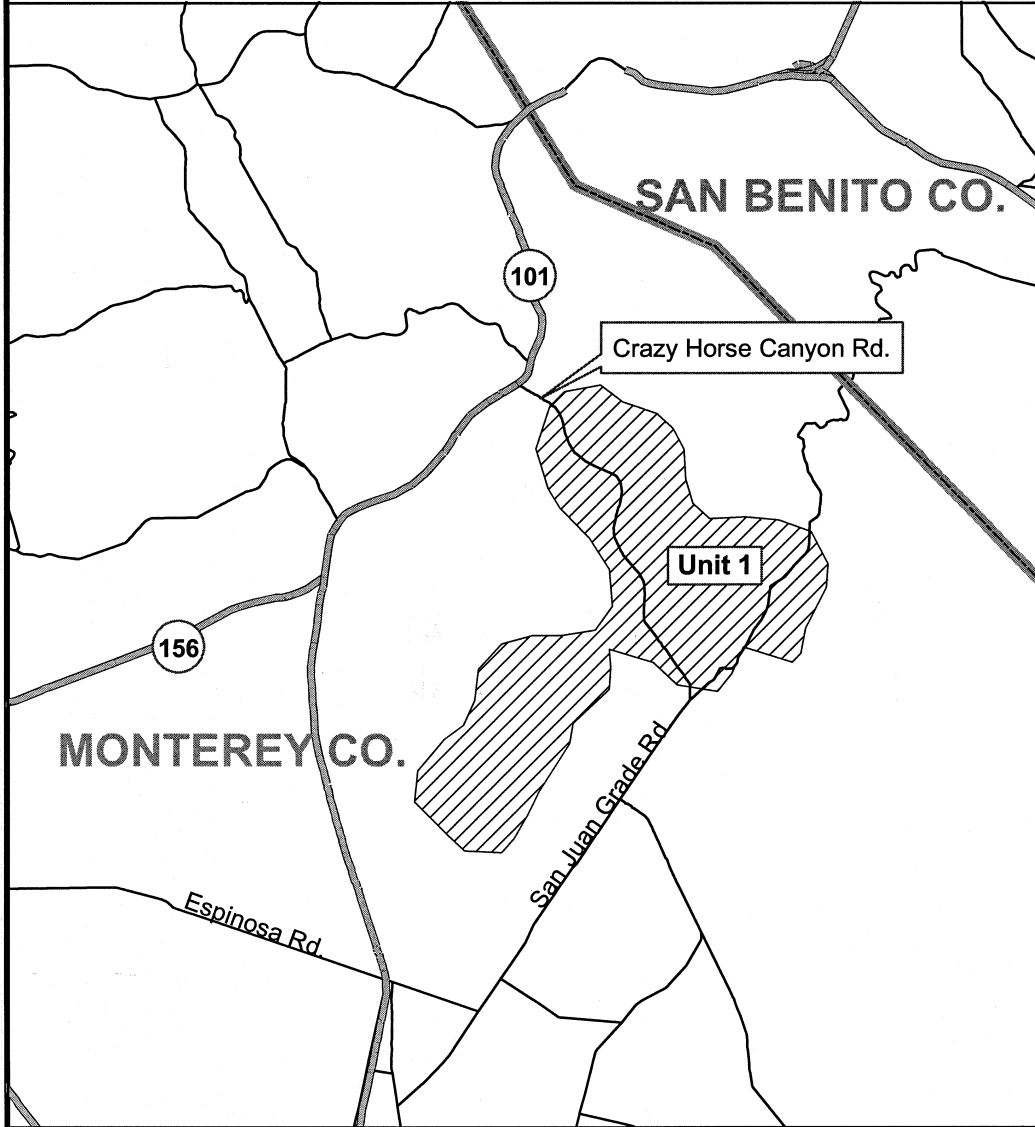
(i) From USGS 1:24,000 quadrangle  
maps Prunedale, and San Juan Bautista,  
California, land bounded by the  
following UTM 10 NAD 27 coordinates  
(E, N): 621828, 4068063; 621246,  
4068090; 620955, 4068354; 620452,  
4068857; 620505, 4069333; 620928,  
4069836; 621219, 4070048; 621404,  
4070444; 621457, 4070921; 621828,

4071318; 622304, 4071450; 622754,  
4071450; 623283, 4071529; 623547,  
4071900; 623495, 4072482; 623204,  
4072958; 622727, 4073434; 622542,  
4073752; 622357, 4074360; 622568,  
4075022; 622807, 4075260; 623362,  
4075366; 623706, 4075101; 624235,  
4074916; 624500, 4074678; 624659,  
4074360; 624685, 4073884; 624791,  
4073514; 625056, 4073276; 625611,  
4073302; 626140, 4073249; 626643,  
4073064; 626908, 4072561; 626881,

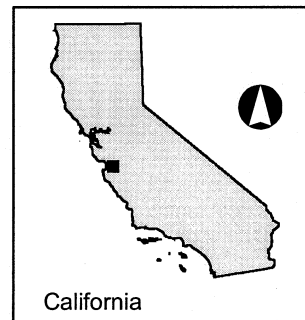
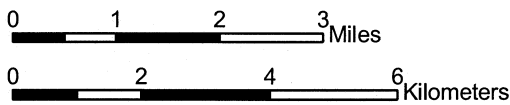
4072191; 626564, 4071556; 626484,  
4071159; 626352, 4071027; 625585,  
4071265; 625400, 4070841; 625188,  
4070577; 624553, 4070683; 624183,  
4071027; 623495, 4071238; 623521,  
4070947; 623495, 4070603; 622939,  
4070074; 622886, 4069757; 622648,  
4069386; 622410, 4069016; 622304,  
4068804; 622225, 4068645; 622013,  
4068275; returning to 621828, 4068063.

(ii) **Note:** Unit 1 (Map 30) follows:

### Central California Tiger Salamander Central Coast Region, Unit 1 Map 30



	Local Roads
	Highway
	County Boundary
	Critical Habitat Unit



(57) Central Coast Region: Unit 2  
Elliott Hill, Monterey County,  
California.

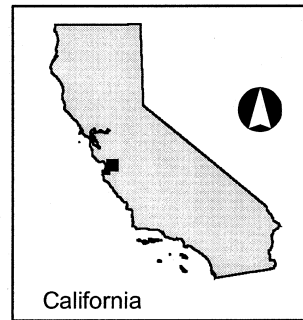
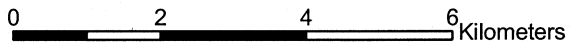
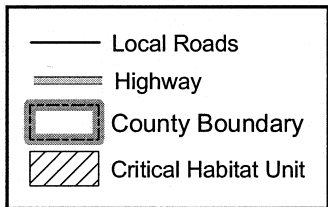
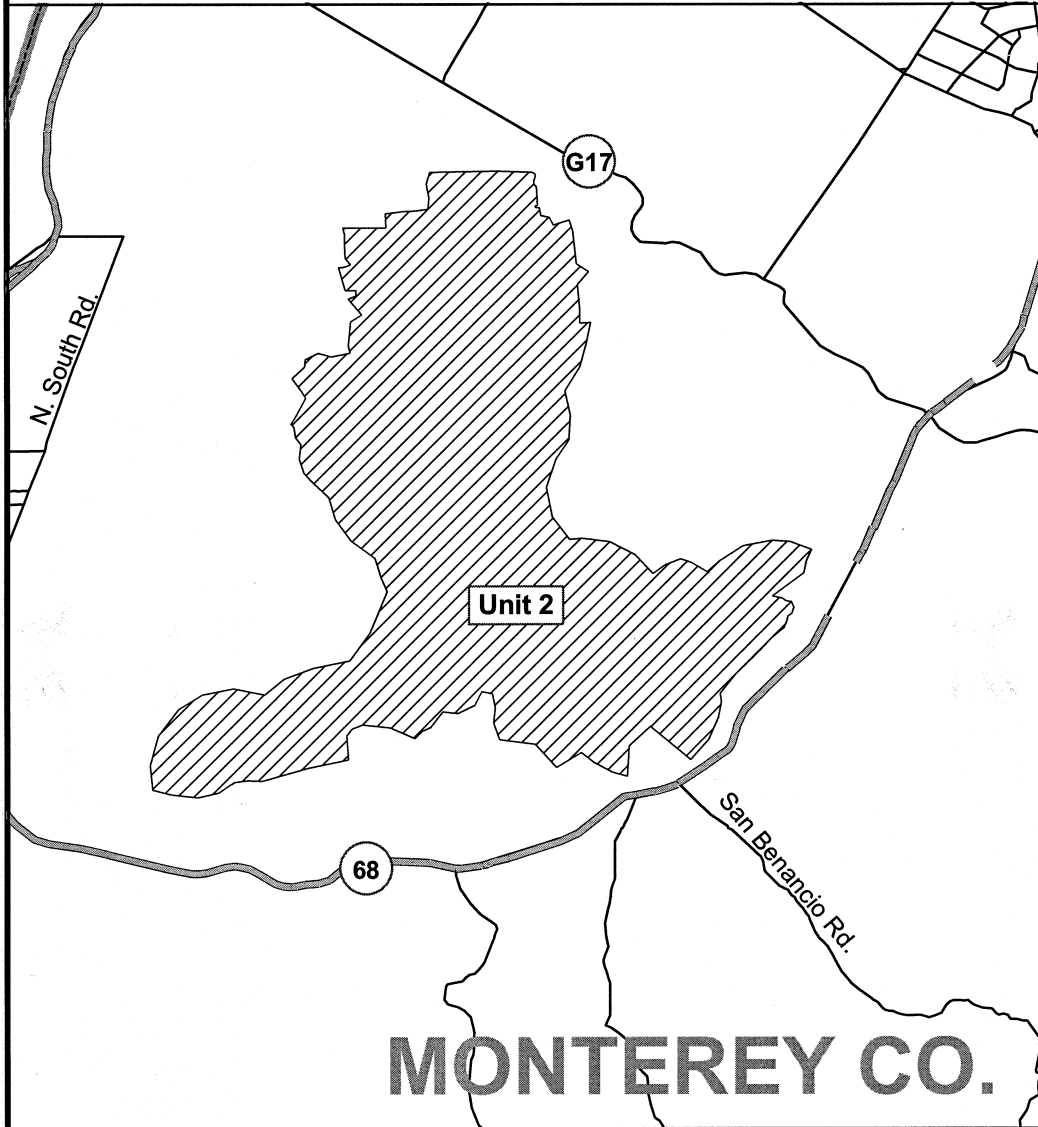
(i) From USGS 1:24,000 quadrangle  
maps Marina, Salinas, Seaside, and  
Spreckles, California, land bounded by  
the following UTM 10 NAD 27  
coordinates (E, N): 607949, 4048604;  
607594, 4048642; 607337, 4048711;  
607302, 4049033; 607408, 4049437;  
607697, 4049810; 608005, 4050007;  
608437, 4050088; 608859, 4050010;  
609128, 4050227; 609520, 4050367;  
610028, 4050468; 610292, 4050839;  
610533, 4051409; 610451, 4051606;  
610369, 4051870; 610040, 4052107;  
609824, 4052404; 609733, 4052702;  
609509, 4052915; 609387, 4053037;  
609331, 4053229; 609352, 4053428;  
609275, 4053523; 609258, 4053669;  
609219, 4053701; 609279, 4053799;  
609418, 4054061; 609376, 4054141;  
609237, 4054333; 609408, 4054491;  
609411, 4054596; 609590, 4054679;  
609775, 4054634; 610022, 4054686;  
610001, 4054781; 610029, 4055110;  
610187, 4055209; 610006, 4055424;  
610107, 4055471; 610104, 4055544;  
609957, 4055544; 609871, 4055857;

609951, 4055864; 610034, 4055892;  
609957, 4055982; 609948, 4056151;  
609948, 4056301; 609925, 4056400;  
610521, 4056401; 610513, 4056595;  
610762, 4056627; 610933, 4056633;  
611095, 4056654; 611110, 4056805;  
611074, 4056998; 611121, 4057160;  
612043, 4057175; 612512, 4057161;  
612557, 4057132; 612557, 4057092;  
612533, 4057035; 612540, 4056993;  
612574, 4056972; 612588, 4056709;  
612559, 4056702; 612559, 4056685;  
612588, 4056678; 612611, 4056681;  
612635, 4056565; 612751, 4056541;  
612805, 4056439; 613018, 4056506;  
613065, 4056357; 613117, 4055909;  
613284, 4055794; 613132, 4055617;  
613164, 4055283; 613164, 4055096;  
613309, 4055100; 613254, 4054819;  
613161, 4054491; 612958, 4054164;  
613036, 4053828; 613012, 4053485;  
612841, 4053228; 612708, 4052838;  
612786, 4052432; 613028, 4052125;  
613195, 4052144; 613565, 4052096;  
613920, 4051920; 614163, 4051662;  
614325, 4051780; 614536, 4051863;  
614680, 4051818; 614900, 4051681;  
615079, 4051841; 615399, 4052042;  
615792, 4052115; 616038, 4052096;

616328, 4051984; 616261, 4051837;  
616223, 4051668; 615798, 4051352;  
615926, 4051321; 615973, 4051294;  
616024, 4051280; 616057, 4051276;  
616091, 4051200; 616064, 4051113;  
616010, 4051072; 615991, 4051005;  
615945, 4050914; 615865, 4050841;  
615788, 4050776; 615588, 4050567;  
615305, 4050298; 615085, 4050024;  
615096, 4049909; 615058, 4049701;  
614916, 4049389; 614680, 4049119;  
614126, 4049576; 613838, 4049306;  
613811, 4048893; 613606, 4048952;  
613346, 4049091; 613184, 4049217;  
612850, 4049014; 612561, 4049332;  
612073, 4049397; 611988, 4049626;  
612013, 4049825; 611978, 4050024;  
611834, 4050049; 611739, 4049865;  
611505, 4049756; 611306, 4049775;  
611137, 4049566; 611027, 4049512;  
610923, 4049407; 610579, 4049556;  
610201, 4049596; 610056, 4049541;  
609981, 4049447; 610001, 4049118;  
609459, 4049004; 608826, 4048829;  
608621, 4048831; 608453, 4048814;  
608394, 4048786; 608231, 4048669;  
returning to 607949, 4048604.

(ii) **Note:** Unit 2 (Map 31) follows:

### Central California Tiger Salamander Central Coast Region, Unit 2 Map 31





(58) Central Coast Region: Unit 3  
Haystack Hill, Monterey County,  
California.

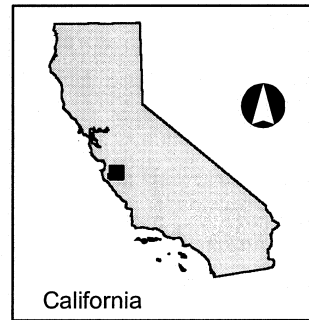
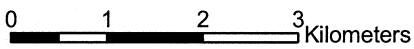
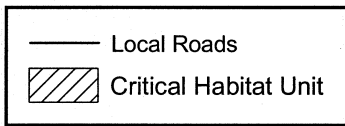
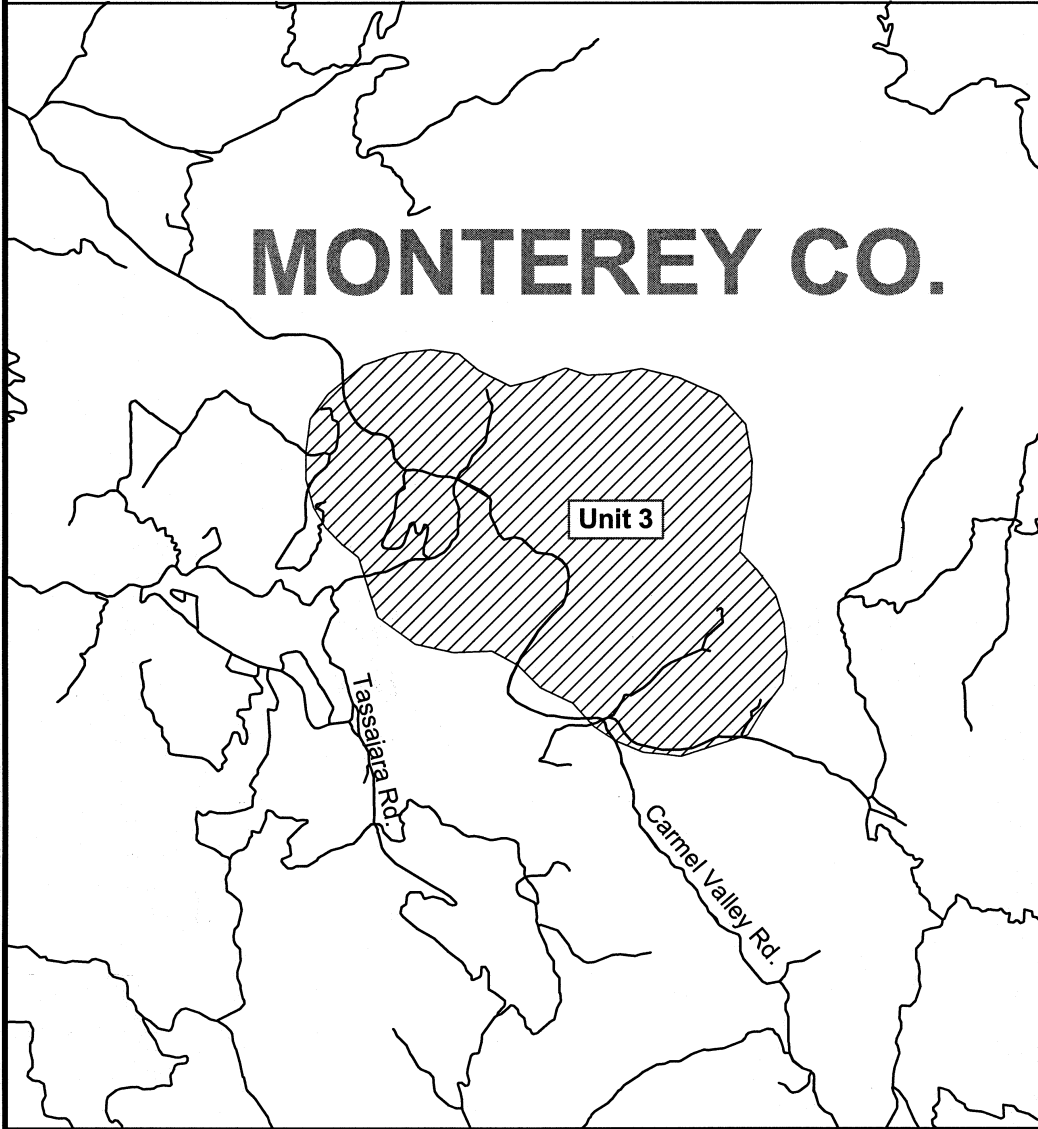
(i) From USGS 1:24,000 quadrangle  
map Rana Creek, California, land  
bounded by the following UTM 10 NAD  
27 coordinates (E, N): 629720, 4026322;  
629330, 4026363; 629023, 4026488;  
628808, 4026629; 628584, 4026877;  
628252, 4027035; 628020, 4027267;  
627747, 4027416; 627349, 4027400;

626942, 4027491; 626553, 4027773;  
626470, 4028021; 626354, 4028394;  
626171, 4028535; 626005, 4028710;  
625881, 4028917; 625798, 4029207;  
625798, 4029497; 625848, 4029837;  
626030, 4030102; 626403, 4030409;  
626785, 4030534; 627108, 4030567;  
627398, 4030525; 627606, 4030351;  
627937, 4030185; 628169, 4030243;  
628509, 4030376; 628741, 4030301;  
628998, 4030310; 629305, 4030368;

629687, 4030277; 630126, 4030086;  
630391, 4029787; 630458, 4029406;  
630449, 4029099; 630375, 4028743;  
630333, 4028453; 630524, 4028254;  
630706, 4028005; 630798, 4027706;  
630822, 4027391; 630781, 4027076;  
630574, 4026794; 630416, 4026546;  
returning to 629720, 4026322.

(ii) **Note:** Unit 3 (Map 32) follows:

**Central California Tiger Salamander  
Central Coast Region, Unit 3  
Map 32**



(59) Central Coast Region: Unit 4  
Gloria Valley, Monterey County,  
California.

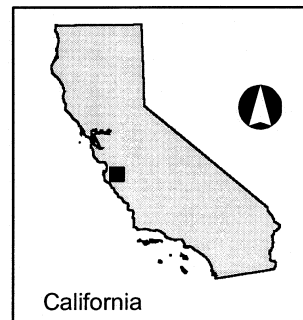
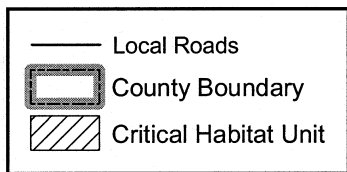
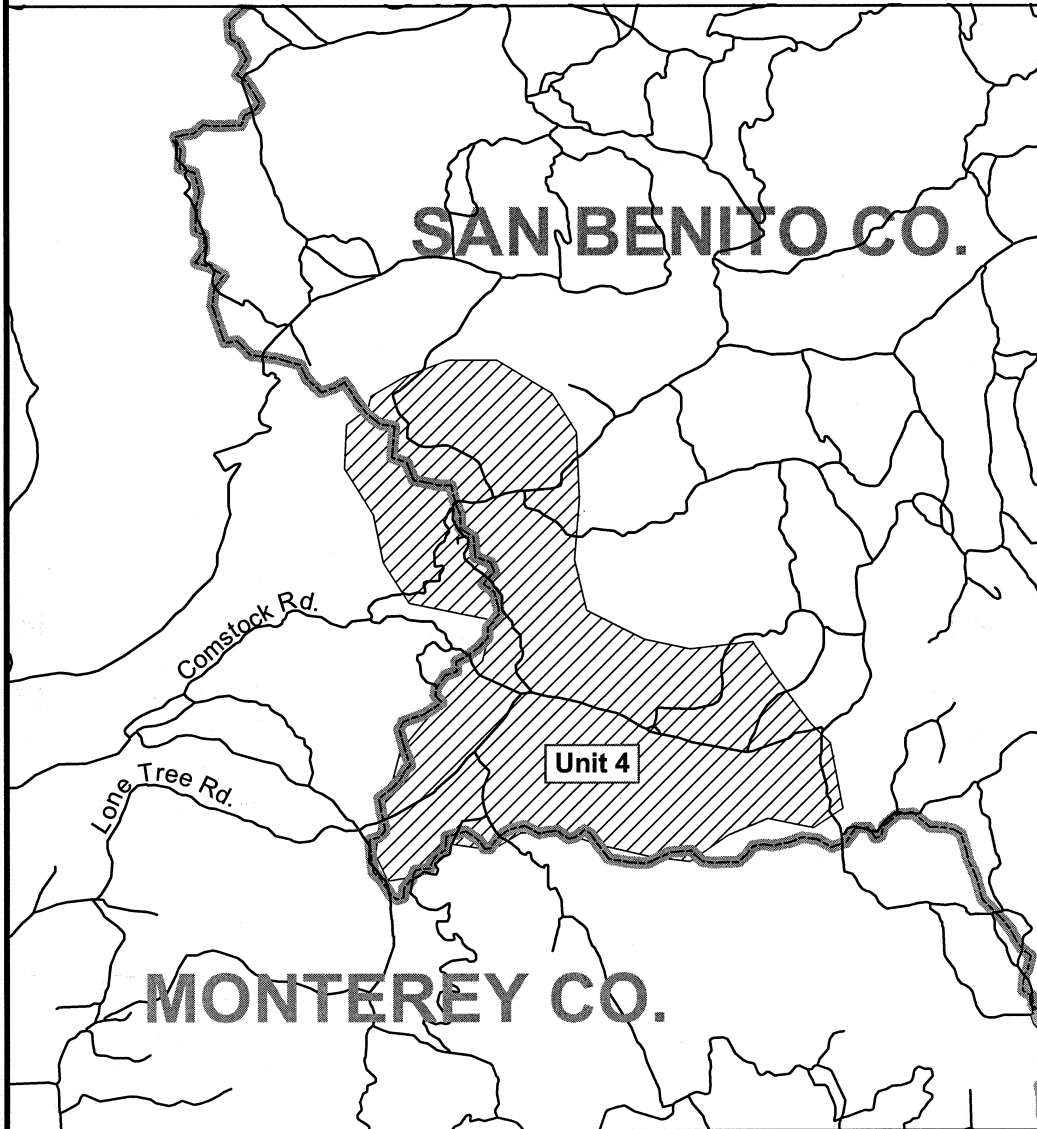
(i) From USGS 1:24,000 quadrangle  
map Mount Jackson, California, land  
bounded by the following UTM 10 NAD  
27 coordinates (E, N): 651514, 4040626;  
651381, 4040917; 651434, 4041367;  
651540, 4041632; 651646, 4042055;  
652069, 4042558; 652545, 4043034;

652651, 4043484; 651752, 4043669;  
651461, 4044119; 651355, 4044648;  
651037, 4045151; 651064, 4045627;  
651302, 4045812; 651328, 4045944;  
651699, 4046156; 652175, 4046341;  
652704, 4046341; 653313, 4045971;  
653577, 4045547; 653604, 4044807;  
653551, 4044145; 653683, 4043589;  
654318, 4043272; 654821, 4043166;  
655509, 4043245; 655747, 4042875;

656144, 4042346; 656355, 4042134;  
656488, 4041420; 656170, 4041208;  
655667, 4041314; 655244, 4041129;  
654821, 4040838; 654398, 4040891;  
653815, 4041023; 653445, 4041155;  
652969, 4041155; 652651, 4040970;  
652122, 4041049; 651805, 4040679;  
returning to 651514, 4040626.

(ii) **Note:** Unit 4 (Map 33) follows:

**Central California Tiger Salamander  
Central Coast Region, Unit 4  
Map 33**



(60) Central Coast Region: Unit 5a  
Fort Hunter Liggett, Monterey County,  
California.

(i) From USGS 1:24,000 quadrangle  
maps San Luis Obispo, and Jolon,  
California, land bounded by the  
following UTM 10 NAD 27 coordinates  
(E, N): 658576, 3974270; 658180,  
3974545; 658129, 3974734; 658249,  
3975250; 658197, 3975611; 658025,  
3975835; 657630, 3976471; 657527,  
3976970; 657337, 3977279; 656976,  
3977365; 656564, 3977486; 656220,  
3977675; 655824, 3977520; 655515,  
3977159; 655308, 3977211; 655067,  
3977555; 654775, 3977916; 654328,  
3978157; 653915, 3978260; 653588,  
3978604; 653262, 3979188; 653090,  
3979257; 652832, 3979584; 652505,  
3979687; 652178, 3980048; 652127,  
3980238; 651920, 3980599; 651162,  
3982084; 651273, 3983155; 650626,  
3983780; 651072, 3984426; 651630,  
3984850; 652143, 3984471; 652634,  
3984069; 653147, 3983869; 653816,  
3983356; 654508, 3983021; 655512,  
3982441; 656092, 3982129; 656181,  
3981348; 655780, 3980589; 655936,

3980344; 656237, 3980237; 656615,  
3980134; 656925, 3979997; 657475,  
3979584; 657810, 3979474; 658386,  
3979979; 658868, 3979928; 659487,  
3979670; 659625, 3979309; 659436,  
3978948; 659057, 3978741; 659040,  
3978535; 659350, 3978019; 659625,  
3977641; 660209, 3977159; 660863,  
3976746; 661190, 3976385; 661465,  
3975869; 661448, 3975405; 660915,  
3974700; 660123, 3974408; 659126,  
3974304; returning to 658576, 3974270.

(ii) **Note:** Unit 5A is depicted on Map  
34—Units 5A and 5B—see paragraph  
(61)(ii).

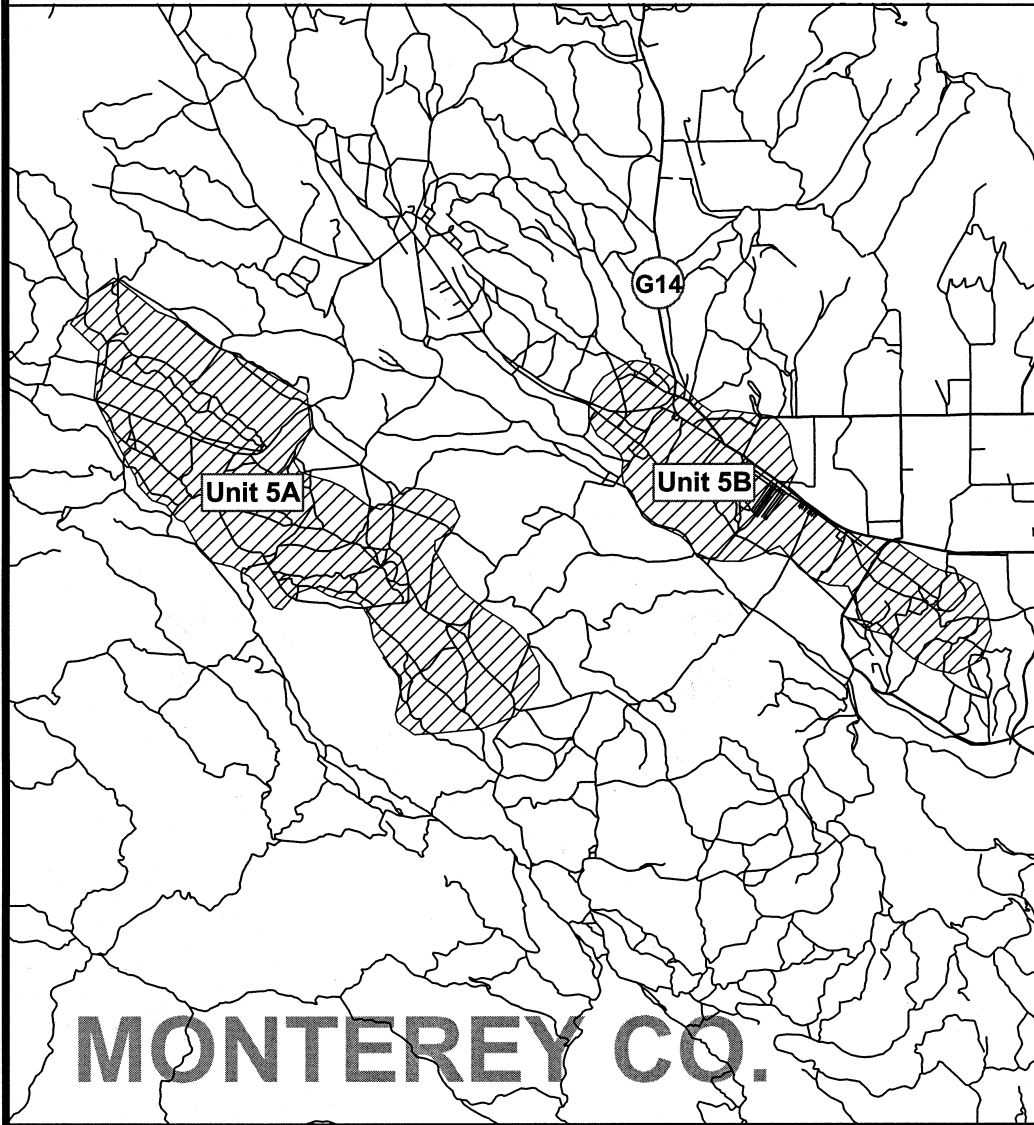
(61) Central Coast Region: Unit 5b  
Fort Hunter Liggett, Monterey County,  
Counties, California.



(i) From USGS 1:24,000 quadrangle  
maps Jolon, and Williams Hill,  
California, land bounded by the  
following UTM 10 NAD 27 coordinates  
(E, N): 671048, 3975666; 670552,  
3975765; 670115, 3976003; 669857,  
3976221; 669520, 3976559; 669044,  
3976678; 668607, 3977690; 668170,  
3977710; 667754, 3977888; 667476,  
3978106; 667020, 3978622; 666484,

3978384; 666146, 3978265; 665690,  
3978265; 665115, 3978364; 664936,  
3978662; 664718, 3978860; 664341,  
3979039; 664083, 3979118; 663845,  
3979317; 663726, 3979595; 663587,  
3979793; 663408, 3980091; 663368,  
3980349; 663388, 3980607; 663329,  
3980765; 663130, 3980964; 662813,  
3981182; 662614, 3981559; 662614,  
3981857; 662714, 3982234; 662952,  
3982551; 663547, 3982908; 663745,  
3982928; 664182, 3982809; 664579,  
3982512; 664956, 3982135; 665194,  
3981896; 665432, 3981738; 665809,  
3981777; 666841, 3981639; 667020,  
3981500; 667218, 3981202; 667317,  
3980666; 667416, 3980408; 667218,  
3979992; 667912, 3979376; 668508,  
3979039; 668865, 3978880; 669381,  
3978801; 669758, 3978702; 669936,  
3978543; 670532, 3978146; 670849,  
3978027; 671167, 3977968; 671583,  
3977749; 671841, 3977134; 671921,  
3976579; 671683, 3975983; returning to  
671048, 3975666.

(ii) **Note:** Unit 5B is depicted on Map  
34—Units 5A and 5B—which follows:

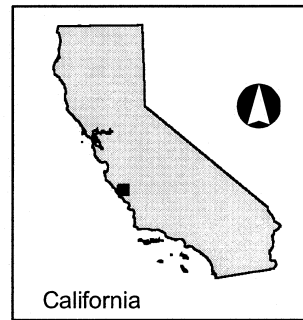
**Central California Tiger Salamander  
Central Coast Region, Units 5A, 5B  
Map 34**



	Local Roads
	Critical Habitat Unit

0 1 2 3 Miles

0 3 6 9 Kilometers



(62) Central Coast Region: Unit 6  
Choice Valley, Kern and San Luis  
Obispo Counties, California.

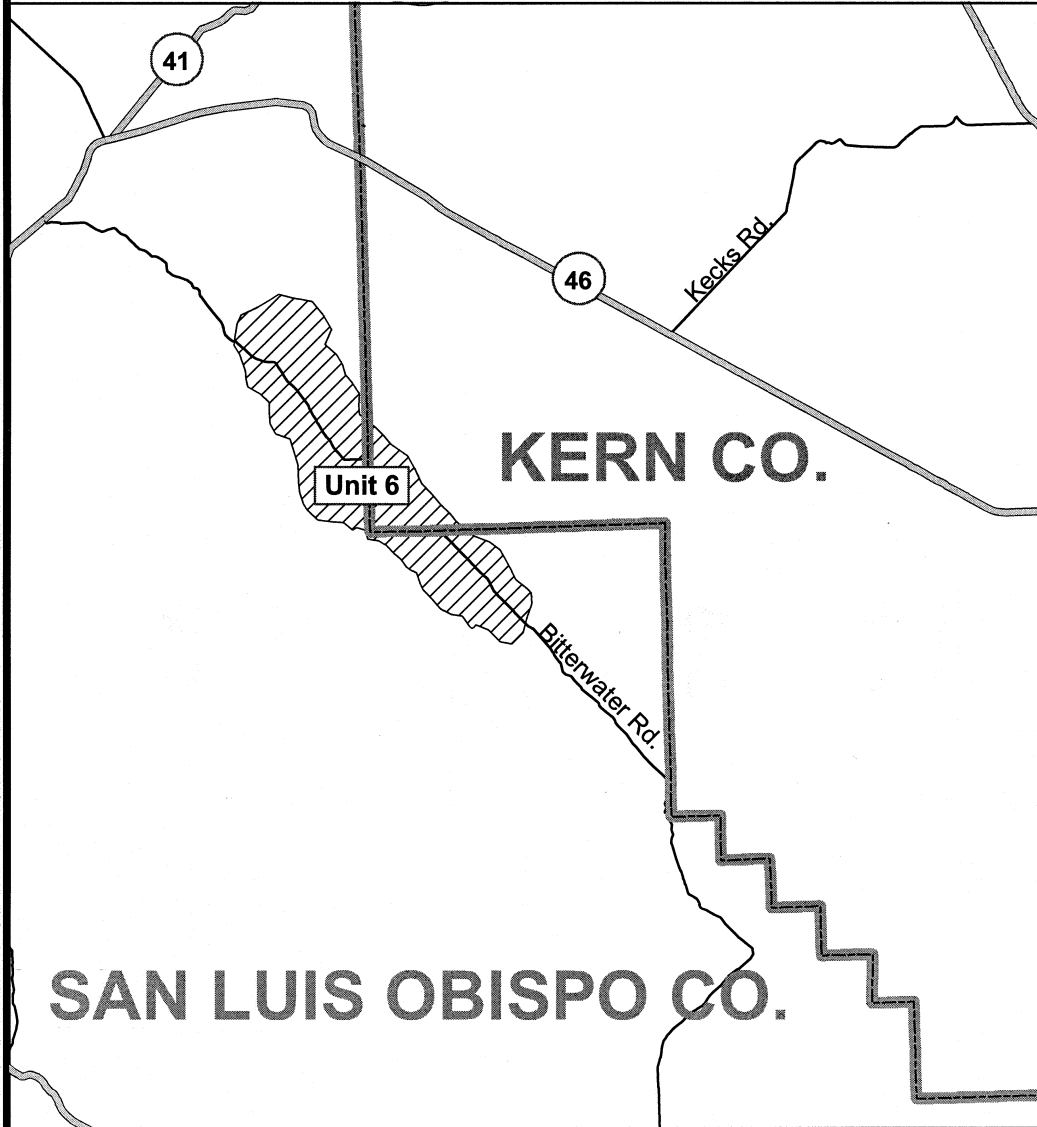
(i) From USGS 1:24,000 quadrangle  
maps Orchard Peak, and Holland  
Canyon, California, land bounded by the  
following UTM 10 NAD 27 coordinates  
(E, N): 758978, 3940883; 758581,  
3940962; 758184, 3941359; 757787,  
3941518; 757655, 3941386; 757576,  
3941439; 757338, 3941809; 756967,  
3941862; 756597, 3942047; 756359,  
3942312; 756015, 3942682; 755909,  
3942920; 755803, 3943238; 755591,  
3943343; 755485, 3943423; 755274,  
3943687; 755036, 3943899; 754824,  
3944137; 754533, 3944322; 754163,





3944375; 754110, 3944666; 753819,  
3944746; 753686, 3944666; 753369,  
3944904; 752945, 3944957; 752522,  
3945010; 752178, 3945328; 752019,  
3945566; 751914, 3945910; 751887,  
3946254; 751861, 3946836; 751702,  
3947365; 751596, 3947709; 751120,  
3947868; 750935, 3948212; 750908,  
3948582; 750908, 3948926; 750617,  
3949191; 750194, 3949429; 750141,  
3949693; 750114, 3949958; 749929,  
3950540; 749744, 3950831; 749770,  
3951148; 749850, 3951545; 749982,  
3951836; 750538, 3952101; 750934,  
3952339; 751226, 3952524; 751728,  
3952392; 751993, 3952366; 752337,  
3952286; 752707, 3951836; 752972,

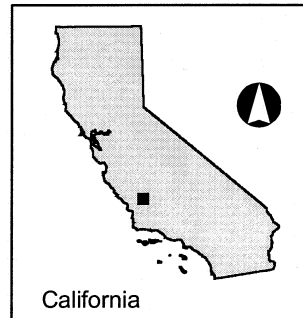
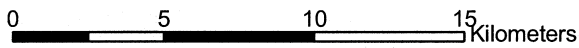
3951360; 752760, 3950858; 753157,  
3950514; 753342, 3950196; 753422,  
3949852; 753660, 3949588; 753898,  
3949217; 753871, 3948820; 753898,  
3948529; 754401, 3948106; 754692,  
3947841; 754956, 3947524; 755512,  
3947127; 755724, 3946730; 755962,  
3946227; 756332, 3945831; 756623,  
3945487; 756914, 3945222; 757126,  
3944957; 757708, 3944481; 758211,  
3944270; 758608, 3943979; 758925,  
3943396; 759110, 3943000; 759454,  
3942735; 759613, 3942576; 759639,  
3942206; 759481, 3941756; 759348,  
3941253; returning to 758978, 3940883.

(ii) **Note:** Unit 6 (Map 35) follows:

### Central California Tiger Salamander Central Coast Region, Unit 6 Map 35



-  Local Roads
-  Highway
-  County Boundary
-  Critical Habitat Unit





\* \* \* \* \*

Dated: July 26, 2004.

**Julie MacDonald,**

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

[FR Doc. 04-17464 Filed 8-9-04; 8:45 am]

**BILLING CODE 4310-55-C**