DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AT68

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

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), are designating critical habitat for the Central population of the California tiger salamander (*Ambystoma californiense*) pursuant to the Endangered Species Act of 1973, as amended (Act). In total, approximately 199,109 acres (ac) (80,576 hectares (ha)) fall within the boundaries of the critical habitat designation. The critical habitat is located within 19 counties in California.

DATES: This rule becomes effective on September 22, 2005.

ADDRESSES: Comments and materials received, as well as supporting documentation used in the preparation of this final rule, will be available for public inspection, by appointment, during normal business hours, at the Sacramento Fish and Wildlife Office, 2800 Cottage Way, Sacramento, CA 95825 (telephone (916) 414–6600). The final rule, economic analysis, and map will also be available via the Internet at *http://sacramento.fws.gov* or by contacting the Sacramento Fish and Wildlife.

FOR FURTHER INFORMATION CONTACT: Arnold Roessler, Sacramento Fish and Wildlife Office at the address above (telephone (916) 414–6600; facsimile (916) 414–6712).

SUPPLEMENTARY INFORMATION:

Designation of Critical Habitat Provides Little Additional Protection to Species

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

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

While attention to and protection of habitat is paramount to successful conservation actions, we have consistently found that, in most circumstances, the designation of critical habitat is of little additional value for most listed species, yet it consumes large amounts of conservation resources. Sidle (1987) stated, ''Because the Act can protect species with and without critical habitat designation, critical habitat designation may be redundant to the other consultation requirements of section 7.'' Currently, only 473 species or 38 percent of the 1,253 listed species in the U.S. under the jurisdiction of the Service have designated critical habitat.

We address the habitat needs of all 1,253 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.

We note, however, that the August 6, 2004, Ninth Circuit judicial opinion, *Gifford Pinchot Task Force v. United States Fish and Wildlife Service*) found our definition of adverse modification was invalid. In response to the decision, the Director provided guidance to the Service based on the statutory language.

Procedural and Resource Difficulties in Designating Critical Habitat

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

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

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

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

Background

A physical description of the California tiger salamander, its taxonomy, distribution, life history, biology, habitat requirements and characteristics, dispersal and migration, and other relevant information is included in the Background sections of the final rule to list the California tiger salamander as a threatened species (69 FR 47212; August 4, 2004) and the proposed rule to designate critical habitat for the Central population of California tiger salamander (69 FR 48570; August 10, 2004). Additional relevant information may be found in the final rules to list the Santa Barbara County population of the California tiger salamander as endangered (65 FR 57242; September 21, 2000) and to list the Sonoma County population of the

California tiger salamander as endangered (68 FR 13498; March 19, 2003), and the final rule to designate critical habitat for the Santa Barbara population (69 FR 68568; November 24, 2004).

Previous Federal Actions

On August 10, 2004, we published in the **Federal Register** a proposed rule to designate critical habitat for the Central population of the California tiger salamander (referred to hereinafter as ''CTS Central population'') (69 FR 48570). On October 13, 2004, a complaint was filed in the U.S. District Court for the Northern District of California (*Center for Biological Diversity and Environmental Defense Council* v. *U.S. Fish and Wildlife Service et al.* (Case No. C–04 4324 FMS)), which in part identified the failure of designating critical habitat for the California tiger salamander in the central portion of its range. On February 3, 2005, the district court approved a settlement agreement between the parties that established an August 10, 2005, deadline for final designation of critical habitat for the California tiger salamander in the central portion of its range to be submitted to the **Federal Register** for publication. This final rulemaking is being made in order to meet the date established in accordance with the settlement agreement. For a discussion of other previous Federal actions regarding the California tiger salamander, please see the final rule to list the Central population of the California tiger salamander as a threatened species across its range (69 FR 47212, August 4, 2004). Other Federal actions regarding California tiger salamander prior to May 2004 are summarized in that final rule and are incorporated by reference.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the Central population of California tiger salamander in the proposed rule published on August 10, 2004 (69 FR 48570). We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule. In addition, we held five public meetings/workshops between January 2005 and March 2005, in the following California locations: Fresno, Merced, Modesto, Red Bluff, and Sacramento. During those public meetings we provided information on the designation, accepted written comments from the public, answered questions related to the designation, and provided information on schedules and contacts for additional information and subsequent open comment periods.

During the comment period that opened on August 10, 2004, and closed on October 12, 2004, we received comments directly addressing the proposed critical habitat designation: one from a peer reviewer, one from a Federal agency, six from Department of Defense agencies, one from a State agency, two from local government, and 34 from organizations or individuals. We received a single request for a public hearing prior to the deadline of September 24, 2004. Sacramento Fish and Wildlife Office staff met with the requester and discussed the Public Hearing process procedures and their client's critical habitat concerns regarding Central Valley Region Unit 1 in Yolo County, California. On March 9, 2005, we received a written withdrawal of the public hearing request (Service in litt. 2005; Neasham in litt. 2005).

During the comment period that opened on July 18, 2005, and closed on August 3, 2005, we received an additional 40 comments directly addressing the proposed critical habitat designation and or the draft economic analysis. Of these latter comments, three were from peer reviewers, one from a Federal agency, and 32 were from organizations or individuals. We received no additional State comments.

The comments we received were reviewed and the significant comments were grouped into general issues specifically relating to the proposed critical habitat designation for Central population of CTS, and are addressed in the following summary and incorporated into the final rule, as appropriate.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from 15 knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received a response from four of the peer reviewers. Peer review comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

Comment: The peer reviewer agreed with our approach to the long term conservation of the species. The peer reviewer agreed that conservation of the range of habitat types in which a species occurs helps maintain local adaptations that are important for long term viability.

Our Response: In our proposal to designate critical habitat we identified those five approaches to conserve the Central population of the California tiger salamander, and we continue to apply these approaches in this final rule. To ensure the long term conservation of the species, Primary Constituent Elements (PCEs) were identified (see Primary Constituent Element section), and critical habitat units are designated consistent with these five principles.

Comment: The peer reviewer stated that the term, ''rescue ponds'' may be misapplied or misunderstood by the general public and suggested using the more easily understood term, ''dispersal ponds'' instead. Another reviewer suggested we specifically define the types of breeding habitat.

Our Response: We agree and have replaced that term throughout this final rule. The term ''dispersal ponds,'' which is defined as ponds located away from the pond in which the adult or juvenile CTS was born, encompasses the definition of ''rescue ponds.'' We have further refined our description of the primary constituent elements including breeding habitat in the final rule.

Issue 1: Department of Defense (DOD)

Comment: The Army has requested that their lands at Fort Hunter-Liggett be exempted from final critical habitat designation based on their Integrated Natural Resources Management Plan (INRMP) providing a benefit to the CTS in accordance with section 4(a)(3) of the Act. Section 318 of fiscal year 2004 National Defense Authorization Act (Pub. L. 108–136) amended section 4 of the Endangered Species Act to address the relationship of INRMPs to critical habitat by adding a new section 4(a)(3)(B). This provision prohibits us from designating as critical habitat any lands or other geographical areas owned or controlled by the DOD, or designated for its use, that are subject to an INRMP prepared under section 101 of the Sikes Act, if the Secretary of the Interior determines, in writing, that such plan provides a benefit to the species for which critical habitat is proposed for designation.

Our Response: We have determined that exclusion of Fort Hunter-Liggett from final critical habitat for CTS under section 4(a)(3) of the Act is appropriate.

Comment: The Army requested that areas identified for development in their Installation-wide Multispecies Habitat Management Plan for Former Fort Ord be excluded from critical habitat, in

accordance with section 4(b)(2) of the Act, because they believe that designation of critical habitat in those areas would result in economic costs and delays such that the benefits of exclusion would outweigh the benefits of inclusion. Specifically, they requested exclusion of the Bureau of Land Management (BLM) Office (approximately 5 hectares (ha)(13 acres(ac))) and Military Operations-Urban Terrain Facility (MOUT) (approximately 22 ha (54 ac)) parcels, which are surrounded by the approximately 6000-ha (15,000 ac) Natural Resource Management Area (NRMA). The NRMA will be managed by BLM with the primary management goals being conservation and enhancement of threatened and endangered species. They also requested exclusion of a two percent development allowance within the NRMA and of all existing paved roads and their associated shoulders.

Our Response: The BLM Office and MOUT parcels are relatively small areas which are already partially developed and are identified for additional development. It is our intent to avoid developed areas because they lack any PCEs in this designation. We have, therefore, not included these areas in critical habitat (see description of Central Coast Region, Unit 2).

The two percent development allowance within the NRMA would allow for up to two percent of areas with natural vegetation to be converted to buildings or other development-oriented uses, such as public access, grazing, police and fire training, and education and research. However, specific development plans do not exist. We cannot determine the effects of excluding unknown development location(s) and, therefore, we are not excluding them from critical habitat.

When determining critical habitat boundaries, we made every effort to avoid proposing the designation of developed areas such as buildings, paved areas, boat ramps, and other structures that lack PCEs for the Central population of the CTS. Any such structures inadvertently left inside proposed critical habitat boundaries are not considered part of the proposed unit. This also applies to the land on which such structures sit directly. Therefore, Federal actions limited to these areas would not trigger section 7 consultations, unless they affect the species and/or PCEs in adjacent critical habitat.

Issue 2: Habitat and Species Specific Information

Comment: Habitat/species are not present on some selected lands that have been proposed to be designated as critical habitat.

Our Response: We believe that we used the best scientific and commercial information available in determining those areas essential for the CTS proposed critical habitat designation. We revised the proposed designation based on information received during the comment periods and have adjusted the designation accordingly. In this final designation, we used additional available information, such as detailed aerial imagery, to refine and map critical habitat (please refer to the Criteria Used to Identify Critical Habitat section). The areas designated as final critical habitat are occupied and have habitat features that are essential for the conservation of the species. Even though an area may be mapped as critical habitat, individual salamanders may or may not be present on any one parcel at all times because some lands may function solely as dispersal habitat for the species and individual salamanders would only be found on those lands during migration.

Comment: The Service has not clearly established that the proposed critical habitat areas are essential to the conservation of the CTS nor provided an explanation of why some other occupied areas are not essential. Also, the descriptions of the PCEs do not explain the basis of what is essential to species conservation.

Our Response: To provide for the long term conservation of the species, we identified those features essential to the conservation of the species (see Primary Constituent Elements section). The criteria used to designate critical habitat units is consistent with the following five conservation principles: (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. We excluded any areas that do not contain one or more of the PCEs or that were determined not 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 species needs for conservation.

Comment: One commenter stated that critical habitat for the species is not prudent and determinable.

Our Response: According to our regulations at 50 CFR 424.12, a designation of critical habitat is not prudent when one or both or the following situations exist: (1) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species, or (2) such designation of critical habitat would not be beneficial to the species. In the final rule listing the Central population of the CTS as threatened (August 4, 2004; 69 FR 47212), we found that a designation of critical habitat was prudent and subsequently published a proposed rule to designate critical habitat on August 10, 2004 (69 FR 48570). We did not find any information indicating that designating critical habitat would increase risk to this species and the large body of scientific information available on the California tiger salamander provides a sufficient basis for us to define PCEs and designate critical habitat. Our reasoning is discussed in the final listing rule, and we believe this rationale is still applicable.

Comment: Several comments stated that we have not conducted surveys across most of the range of the species and haven't established what is critical habitat for the species. Several commenters asserted that we lack site-specific information (presence) across the range of the species, and more studies are needed to determine critical habitat for the species. One commenter requested that we postpone designating critical habitat until site-specific surveys are completed over the range of the species.

Our Response: We acknowledge that rangewide surveys over all areas that the species may be distributed have not been conducted. Nonetheless, we feel that we have sufficient peer-reviewed scientific and commercial data regarding the range, distribution, biology, and ecology of the Central population of the CTS to designate critical habitat. Given the large body of existing CTS scientific and commercial data, we feel that additional site-specific data is not necessary to designate critical habitat for the Central population of the CTS. We have used the best scientific and commercial data

that is available to determine what habitat features are essential for the conservation of this species. We feel that additional surveys at this time across the range of this species would be of little assistance in developing an improved understanding of the PCEs for this species.

Comment: One commenter stated that critical habitat is not needed to stop development because most CTS habitat is not threatened by development in the foreseeable future.

Our Response: The purpose of designating critical habitat is not to stop development, but to provide for the conservation of the species. The listing rule states that the species is threatened by development in the foreseeable future by a variety of factors including habitat destruction, degradation, and fragmentation due to urban development and conversion to intensive agriculture, hybridization with nonnative salamanders, inadequate regulatory mechanisms, nonnative predators, and pesticide drift, and CTS continues to be threatened by these factors.

Comment: One commenter stated that the species is already protected enough by private and Federal programs. A total of 15 percent of all extant occurrences (96 breeding locations) and 3,326,807 acres of habitat are protected by the Williamson Act or Food Security Zones.

Our Response: A critical habitat designation means that Federal agencies are required to consult with the Service on the impacts of actions they undertake, fund, or permit on designated critical habitat. While in many cases, these requirements may not provide substantial additional protection for most species, they do direct the Service to consider specifically whether a proposed action will affect the functionality of essential habitat to serve its intended conservation role for a species rather than to focus exclusively on whether the action is likely to jeopardize the species' continued existence. We agree, however, that even absent a critical habitat designation, Federal agencies are still required to consult on the impacts of their activities on listed species and their habitat.

Fifteen percent of CTS breeding locations is an insufficient amount of protected habitat for the conservation of the species, especially when more than the breeding ponds themselves need protection in order to conserve the species. To ensure the long term conservation of the species, we identified those features essential to the conservation of the species (see Primary Constituent Element section). The criteria we used to designate critical habitat units is consistent with the five-pronged approach identified earlier.

The California Land and Conservation Act, more commonly known as the Williamson Act, has been an agricultural land protection program since its enactment in 1965. In 1998, the California Legislature enhanced the Williamson Act with farmland security zone provisions. The Williamson Act is a voluntary program that offers tax incentives in exchange for voluntary restrictive land uses for agricultural and compatible open space uses under a minimum 10-year rolling contract with local governments. The food security zone provisions offer a tax reduction for a 20-year minimum rolling contract term. These contracted areas may offer some limited protection from habitat destruction. However, these contracts do not significantly provide for long term conservation of the species, as they may not be renewed by the property owner upon expiration and they can be canceled prior to the end of the contract term, based upon board approval and payment of a cancellation fee.

Comment: One commenter stated that critical habitat is not warranted because the species is extant across its historical range and half the range remains suitable.

Our Response: The term, ''not warranted,'' applies to a petition to list the species as threatened or endangered and is a result that is possible for a petition finding. We do not have a ''not warranted'' option for a critical habitat designation. Although we agree that salamanders can still be found across their historical range and habitat remains suitable, the species continues to be threatened by destruction, fragmentation, and degradation of wetland and associated upland habitats due to urban development, conversion of habitats to intensive agriculture, predation by nonnative species, disease, agricultural and landscape contaminants, rodent and mosquito control, and hybridization with nonnative tiger salamanders now and in the foreseeable future.

Issue 3: Unit Designations

Comment: One commenter stated that the units need to be connected.

Our Response: We disagree that all critical habitat units need to be connected. We determined that the conservation of the species would be best served if the PCEs include dispersal habitat for CTS to meet the animal's requisite biological needs. For the proposed critical habitat designation, we developed a specific strategy for determining which areas would be considered critical habitat. Part of that strategy was to connect separated CTS records based on the known dispersal capabilities and continuous habitat between occurrences and/or breeding locations. Connecting large areas of unknown occupancy which may or may not support CTS, or the PCEs, would not materially contribute to the conservation of the species. For more information, please see the Criteria and Methodology sections.

Comment: Several commenters stated that the unit descriptions are incomplete and, in some cases, inaccurate.

Our Response: In response to information provided during the two public comment periods and the information received during the public meeting and workshops, we made corrections to two of the proposed critical habitat unit descriptions. We feel that we have provided sufficient information for the public to generally understand the location of each unit and are ready to assist individuals with any additional information requests on the locations of the critical habitat units. For further information on this designation and specific units, please contact the Sacramento Fish and Wildlife Office (see **ADDRESSES** section above).

Comment: One commenter stated that the PCE descriptions are unclear.

Our Response: 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, the PCEs, that are essential to the conservation of the species and that may require special management considerations and protection. These include, but are not limited to: Space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species. The comment letter did not specify what was unclear about the PCEs described in the proposed rule. For a full description of each of the PCEs, please refer to the Primary Constituent Element section below.

Issue 4: Social and Economic Costs/ Regulatory Burden

Comment: Several commenters asserted that critical habitat results in an increased regulatory burden, increased landowner costs, and restricts land uses and property rights.

Our Response: The economic analysis identifies the costs which accrue as a result of the designation. These costs will be incurred when a Federal approval or permit is required, or Federal funds are involved with a project proposed on private property, the critical habitat designation poses no regulatory burden for private landowners, and in particular, should not affect farming and ranching activities on private lands. Routine ranching activities are also exempt from take under the 4(d) rule at 50 CFR 17.43(c).

While the designation of critical habitat does not itself result in the regulation of non-federal actions on private lands, the listing of the Central population of California tiger salamander under the Endangered Species Act may affect private landowner's actions. Actions which could result in take of California tiger salamanders (*e.g.*, ground disturbing activities such as soil compaction or soil remediation activities) require authorization for take following consultation under Section 7 or an incidental take permit under section 10 of the Act. Because the Central population of CTS has been listed since 2004, proposed actions on private lands that require Federal authorization or funding that may affect the listed entity already undergo consultation under Section 7 to ensure that their actions are not likely to jeopardize the continued existence of the species. Future consultations involving private lands will also analyze the effect of the proposed action on designated critical habitat when a Federal nexus exists.

Comment: One commenter stated that all critical habitat lands, not just habitat, are now subject to Service jurisdiction.

Our Response: Federal agencies have the responsibility to consult with us if a Federal action may affect a federally-listed species even absent critical habitat designation for that species. This requirement exists for all lands. We also determine whether a proposed project will adversely modify or destroy any designated critical habitat. Private individuals also share the same responsibility but may need to seek authorization for incidental take under section 10 of the Act.

Comment: One commenter stated that critical habitat designation burdens landowners with determining if their lands have PCEs and that the costs of determining PCEs on private lands should be undertaken by the Service. Other commenters stated that the designation of critical habitat means that regulatory agencies will oversee agricultural and ranching practices, that critical habitat will impact housing development by delaying the development process and thereby increase costs, and that the designation of critical habitat will increase delays in permit processing.

Our Response: Designation of critical habitat in areas occupied by the species does not necessarily result in a regulatory burden above that already in place due to the presence of the listed species. The Service will work with private landowners to identify activities and modifications to activities that will not result in take, to develop measures to minimize the potential for take, and to provide authorizations for take through sections 7 and 10 of the Act. One intention of critical habitat is to inform people of areas that contain the features that are essential for the conservation of the species. We encourage landowners to work in partnership with us to develop plans that allow their land management and development practices to proceed in a manner consistent with the conservation of listed species. The California tiger salamander is already a federally-listed species, and as such, development projects that may result in take of the species are already required to consult with the Service under Section 7 or Section 10 of the Act. Assuming a federal nexus exists, designation of CH will not cause any additional delays to housing developments due to consultation requirements.

Comment: A commenter stated that sections 7 and 10 of the Act already sufficiently protect the species. Another commenter stated that the U.S. Army Corps of Engineers (Corps) already has jurisdiction over vernal pools that are used as CTS breeding ponds, so the Clean Water Act (CWA) already protects the species and its habitat.

Our Response: Sections 7 and 10 of the Act function to ensure activities that result in incidental take, or that may adversely affect the species, will not jeopardize the existence of the species, while the larger role of critical habitat functions to conserve the species. The Act requires Federal agencies to consult with us on actions they undertake, fund, or permit on designated critical habitat to ensure that those actions do not adversely modify the designated critical habitat. Although these requirements may not provide substantial additional protection for many species, they direct the Service to consider whether or not a proposed action would affect the functionality of critical habitat to serve its intended conservation role for a species rather than to focus exclusively on whether or not the proposed action would be likely to jeopardize the species' continued existence. We agree that even absent a critical habitat designation, Federal agencies are still required to consult on the effects of their activities on listed species. Finally, the Corps may take jurisdiction over some of the aquatic breeding habitat of the CTS, such as some vernal pools. However, not all CTS breeding habitat occurs on Corps jurisdictional wetlands. Additionally, the CTS is a terrestrial species that spends most of its adult life in the surrounding uplands that are generally not under the jurisdiction of the Corps. Therefore, we conclude that regulation of the discharge of fill into waters of the United States by the Corps under Section 404 of the CWA is inadequate to protect the Central population of CTS and its habitat.

Comment: Many commenters claimed the Service violated the Administrative Procedure Act and the Act because we should have prepared an economic analysis first and then proposed critical habitat.

Our Response: Pursuant to the Act, and clarified in our implementing regulations at 50 CFR 424.19, we are required to, ''after proposing designation of [a critical habitat] area, consider the probable economic and other impacts of the designation upon proposed or ongoing activities.'' The purpose of the draft economic analysis is to determine and evaluate the potential economic effects of the proposed designation. In order to develop an economic analysis of the effects of designating critical habitat, we need to have identified an initial proposal for the designation of critical habitat. Following the publication of our proposed designation of critical habitat for the CTS, we developed a draft economic analysis of the proposed designation that was released for public review and comment. The public was allowed 60 days to comment on the proposed designation and an additional 17 days to comment on both the draft economic analysis and proposed designation.

Issue 5: Notification and Comment Period Comments

Comment: Several commenters stated that all private landowners were not notified about the proposed designation of critical habitat, that additional public

meetings are needed, and that the public was not given enough opportunity to comment because the draft economic analysis was not published at the same time or before the proposed rule to designate critical habitat. Another commenter stated that the Service admits that the proposed critical habitat was made without sufficient public participation and without sufficient scientific rigor and review, so the rule should be withdrawn until evidence is presented regarding species conservation requirements.

Our Response: The proposed critical habitat designation was published in the **Federal Register** on August 10, 2004 (69 FR 48570), and we accepted comments from all interested parties for a 60-day comment period, until October 12, 2004. On July 18, 2005, we reopened the comment period for 17 days and made available the draft economic analysis (70 FR 41183). We held five public workshops to provide information on the CTS, and at those workshops, we discussed opportunities for the public to comment and provide input and information. We solicited comments from peer reviewers on the proposed critical habitat designation for the CTS. We received general support from experts in the fields of ecology, conservation, genetics, taxonomy, and management reviewers of the proposed rule. In addition, we are required to base critical habitat designations on the best available scientific and commercial data available to us, to consider those physical and biological features that are essential to the conservation of the species, and to consider whether such areas may require special management considerations and protection. Our definition and explanation of the PCEs was peer reviewed and the results of the review did not indicate that our definition or description of the PCEs was lacking. Additionally, we have revised our PCEs to more accurately and/or precisely identify those physical and biological features essential to the species.

Comment: The Service should draft a recovery plan for the species before critical habitat is proposed to be designated.

Our Response: Section 4 of the Act requires us to designate critical habitat at the time of listing to the maximum extent prudent and determinable. While we agree that a recovery plan is a useful tool to assist us with determining which areas contain the habitat features that are essential for the conservation of a species, we are unable to postpone the final designation pending completion of a recovery plan.

Issue 6: Property Rights

Comment: The proposed critical habitat designation decreases land values.

Our Response: We have finalized our draft economic analysis of the impact of critical habitat designation by incorporating all substantive comments received during the public comment periods (See Economic Analysis section).

Comment: The Service needs to provide more information on which agricultural practices are allowable, and when consultation with us would be necessary owing to crop changes.

Our Response: Some farming practices benefit salamanders while other practices may adversely affect salamanders. For example, drawing down pond water for frost protection can conflict with CTS biological needs; however, creating additional new ponds may benefit CTS if the ponds stay inundated long enough during the period of juvenile metamorphosis (approximately 12 weeks), with active, regular control of nonnative species. Activities carried out, funded, or authorized by a Federal agency (*i.e.*, activities with a Federal nexus) require consultation pursuant to section 7 of the Act if they may affect a federally listed species and/or its designated critical habitat. Our experience with consultations on CTS is that few agricultural activities have involved a Federal nexus and thus have not required a consultation under section 7 of the Act. In regard to grazing, we do not foresee any change in the ability of private landowners to graze their property as a result of this designation due to the establishment of the special 4(d) rule at 50 CFR 17.43(c). In addition, we anticipate that many activities, including grazing, presently occurring in areas designated as critical habitat can be managed to be compatible with the needs of CTS and its habitat. We addressed many agricultural issues during the public workshops and hearings that we held during the process of listing the species. Any interested parties are welcome to write us or call us (see **ADDRESSES** section) during regular business hours to have us answer specific questions regarding agricultural practices as they relate to CTS conservation.

Comment: The Service should compensate private landowners for taking because critical habitat is designated.

Our Response: The designation of critical habitat does not mean that private lands would be taken by the Federal government or reasonable uses would not be allowed. We believe that, in accordance with Executive Order 12630, this designation of critical habitat for the CTS will not have significant takings implications. We determined that: (1) The designation would result in little additional regulatory burden above that currently in place due to the species being federally listed because the majority of the designation is occupied by the species, and (2) the designation of critical habitat will not affect private lands in which there is not a Federal nexus. We do not anticipate that property values, rights or ownership will be significantly affected by the critical habitat designation.

Issue 7: Mapping

Comment: Several commenters stated that the proposed designation of critical habitat goes overboard, includes ''all geographic area,'' is poorly defined, and should exclude nonhabitat areas from the designation of critical habitat. Other commenters stated that the Service made errors in mapping open spaces and developed areas as critical habitat and that we used political boundaries as a basis for critical habitat units.

Our Response: Of the estimated 936,204 ac (378,882 ha) of California tiger salamander habitat, we have designated 199,109 ac (80,576 ha). In our designation, we did not designate all the areas where California tiger salamander are found, but instead focused on areas where there are high concentrations of known occurrences and the habitat is likely to persist in the future. In this designation, not all geographic areas are critical habitat if those areas do not possess any the PCEs as we identified in the proposed rule and this final rule. We feel that we have clearly defined and described the three PCEs. All designated critical habitat is occupied and contains at least one of the three PCEs. Based on the clear PCE definitions, we believe that landowners can identify the areas that contain the PCEs. We stated in the proposed and final rules that areas that do not have PCEs are not considered to be critical habitat, including roads, buildings, paved areas, etc.

Comment: The Service used poor data and needs to do a better job mapping areas that do not contain PCEs, such as buildings, roads, parking lots. These mapping errors and inaccuracies need to be corrected, and the Service should better describe which areas are and are not critical habitat.

Our Response: In the proposed rule and this final rule, we used the best scientific and commercial data available to develop critical habitat for the species

and took into account the many comments that we received in developing the final rule. We stated in the proposed rule and again in this final rule that we could not map critical habitat in sufficient detail to exclude each and every developed area or other areas that are unlikely to contain the PCEs. However, when determining critical habitat boundaries, we made every effort to avoid designating developed areas such as buildings, paved areas, boat ramps, and other structures that lack PCEs for the Central population of the California tiger salamander. Any such structures inadvertently left inside proposed critical habitat boundaries are not considered part of the unit. This also applies to the land on which such structures sit directly. Therefore, Federal actions limited to these areas would not trigger section 7 consultations, unless they affect the species and/or primary constituent elements in adjacent critical habitat.

Comment: A number of commenters identified specific areas that they thought should not be designated as critical habitat.

Our Response: Where site-specific documentation was submitted to us providing a rationale as to why an area should not be designated critical habitat, we evaluated that information in accordance with the definition of critical habitat pursuant to section 3(5)(A) of the Act and the provisions of section 4(b)(2) of the Act. We evaluated the parcels to determine whether or not modifications to the proposal were warranted. We further examined the proposed critical habitat areas and refined the boundaries to exclude those areas that did not, or were not likely to, contain the PCEs for the species, wherever technically feasible. Please refer to the Summary of Changes from the Proposed Rule section for a more detailed discussion.

Comment: The Service violated the Act by not narrowly defining critical habitat.

Our Response: We believe that we have followed the Congressional intent of the Act by designating critical habitat to the maximum extent prudent and determinable for California tiger salamander based on the best scientific and commercial data available. We are required to identify critical habitat ''by specific limits using reference points and lines as found on standard topographic maps of the area'' (50 CFR 424.12(c)). We have delineated the boundaries of the critical habitat units in this rule based on the best scientific and commercial data available. The scale at which we mapped the extent of critical habitat was based on the availability and accuracy of aerial photography and GIS data layers used to develop the designation. In drawing our lines for the proposed rule, we attempted to exclude areas that do not contain essential occurrences of the species and habitat as defined by the PCEs. On the basis of information obtained through public comments and updated imagery and GIS data layers, we have been able to refine the boundaries of critical habitat during the development of this final rule. However, due to the limitations of our mapping scale, we were not able to exclude all areas that do not contain the PCEs. We have determined that existing manmade features and structures, such as buildings, roads, railroads, airports, runways, other paved areas, lawns, and other urban landscaped areas are not likely to contain one or more of the PCEs. Because activities in these areas are unlikely to affect PCEs (*i.e.*, critical habitat for the species), a consultation under section 7 of the Act would not be required.

Comment: The proposed designation should be withdrawn until the consequences of the *Gifford Pinchot* court decision are appropriately codified, after the Service conducts a formal rulemaking process.

Our Response: We are under an order to designate critical habitat. The Director has issued guidance for the evaluation of critical habitat effects when the Service consults which is based on the language of the statute.

Comment: The Service lacks evidence for the scale and extent of what is essential for the conservation of the species.

Our Response: To ensure the long term conservation of the species, we identified those features essential to the conservation of the species (see Primary Constituent Element section). The criteria used to designate critical habitat units is consistent with the following five conservation principles: (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. We excluded areas that do not contain one or more of the PCEs or did not contain the habitat features 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 species needs for conservation. The Act directs us to identify specific areas, both occupied and unoccupied by a listed species, that have the features essential to the conservation of the species and that may require special management. Using the best available scientific and commercial information, we have determined those areas that would best conserve the species in the long term. Those areas are described in terms of PCEs and habitat features and are provided in this final rule.

Comment: The primary constituent elements are arbitrary, overly broad, and do not provide for defensible critical habitat boundaries.

Our Response: We have determined the habitat features (PCEs) to be essential for the conservation of the species. To ensure the long term conservation of the species, we identified those features essential to the conservation of the species (see Primary Constituent Elements section). The criteria used to designate critical habitat units is consistent with the following five conservation principles: (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. We did not designate areas that did not contain one or more of the PCEs or that were not 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 species needs for conservation.

Comment: The Service failed to demonstrate that special management considerations are needed to justify a critical habitat designation.

Our Response: Critical habitat is defined in section 3(5)(A) of the Act as: (i) the specific areas within the geographic area occupied by the species,

at the time it is listed in accordance with the Act, on which are found those physical or biological features that are (I) essential to the conservation of the species and (II) that may require special management considerations or protections; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon determination that such areas are essential to the conservation of the species. In our determination of critical habitat for CTS, we have identified those areas of occupied habitat that contain those features essential to the conservation of the species. Areas that may require special management or protection have also been identified (see Critical Habitat Designation section below).

Issue 8: 4(d) Rule

Comment: The 4(d) rule should include public lands like East Bay Regional Park District, not just private lands.

Our Response: The final rule listing the CTS as threatened (69 FR 47212) finalized the 4(d) rule for the species rangewide, which exempts existing routine ranching activities. Under the 4(d) rule, take of the threatened Central population of CTS caused by existing routine ranching activities on private or Tribal lands for activities that do not have a Federal nexus would be exempt from section 9 of the Act. Federal agencies have the responsibility to consult with the Service if a Federal action may affect a federally-listed species because of their section 7 responsibilities under the Act.

Issue 9: State Comments

We received one comment from the State of California during the initial comment period. We did not receive any additional State comments during the second comment period, which opened on July 18, 2005 (70 FR 41183).

State Comment: The California Department of Transportation provided information regarding labeling errors on the **Federal Register** map for Unit 4 of the Central Coast Region.

Our Response: We have revised the **Federal Register** maps to reflect changes in the labeling.

Economic Analysis

Comment: Critical habitat will increase transaction costs, slow sales, and reduce rental and developmental incomes.

Our Response: To the extent that they are documented, the economic analysis captures costs related to the designation including those enumerated by the commenter.

Comment: The proposed rule to designate critical habitat for CTS violates Executive Order 13211. Specifically, the Service needs to exclude energy producing lands or prepare a Statement of Energy Effects and include those effects in the EA and discuss benefits and costs to the species and energy production.

Our Response: The draft economic analysis considers potential impacts on the energy section. This analysis examines planned power production facilities within the study area for proximity to proposed critical habitat. It finds the sites fall into one of two categories: either they are too far from critical habitat to be affected, or are within or near habitat but have already completed the environmental mitigation process. In both cases, the incremental impacts of designation are zero; the regulation is not expected to impact energy production. This final rule to designate critical habitat for the Central population of the CTS 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. For more details, please see the draft economic analysis, section ''V.2 Economic Impacts on the Energy Industry.''

Comment: Several comments stated that the DEA underestimated the delay in project completion resulting from Section 7 consultation.

Our Response: Delay times resulting from Section 7 consultation were calculated based on a review of available Biological Opinions. Delay time was calculated based on the average number of days from submission of a completed application to the date of a final decision.

Comment: Several comments stated that mitigation costs in Alameda, Contra Costa and Fresno Counties are higher than the figure used in the DEA.

Our Response: Mitigation costs were derived from a survey of mitigation banks, developers and consultants familiar with the permitting process. We believe that these data represent the best available information on mitigation costs in affected counties.

Comment: Several comments stated that the avoidance and mitigation requirements and mitigation costs used in the DEA are inconsistent with the recent *Gifford Pinchot* decision.

Our Response: Avoidance and mitigation requirements and mitigations costs used in the DEA were based on interviews with those familiar with the permitting process as well as a comprehensive examination of the Service's consultation history. The Ninth Circuit has recently ruled (''Gifford Pinchot'', 378 F.3d at 1071) that the Service's regulations defining ''adverse modification'' of critical habitat are invalid. As a result, there is some uncertainty involved in considering the costs due to the fact that the consequences of designation are more difficult to predict as Service cannot rely on decades of factual information based on prior experience.

Comment: One comment stated that the DEA failed to provide a balanced assessment of economic benefits and costs in relation to the proposed critical habitat designation. The commenter also included a general list of potential benefits that may be associated with the designation of critical habitat and suggested that the Service should include such effects in its economic analysis.

Our Response: Section 4(b)(2) of the Act requires the Secretary to designate critical habitat based on the best scientific data available after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. The Service's approach for estimating economic impacts includes both economic efficiency and distributional effects. The measurement of economic efficiency is based on the concept of opportunity costs, which reflect the value of goods and services foregone in order to comply with the effects of the designation (e.g., lost economic opportunity associated with restrictions on land use). Where data are available, the economic analyses do attempt to measure the net economic impact. However, no data was found that would allow for the measurement of such an impact, nor was such information submitted during the public comment period.

Most of the other benefit categories submitted by the commenter reflect broader social values, which are not the same as economic impacts. While the Secretary must consider economic and other relevant impacts as part of the final decision-making process under section 4(b)(2) of the Act, the Act explicitly states that it is the government's policy to conserve all threatened and endangered species and the ecosystems upon which they depend. Thus the Service believes that explicit consideration of broader social values for the species and its habitat, beyond the more traditionally defined economic impacts, is not necessary as Congress has already clarified the social importance.

The Service notes that as a practical matter, the difficulty in being able to

develop credible estimates of such values as they are not readily observed through typical market transactions and can only be inferred through advanced, tailor-made studies that are time consuming and expensive to conduct. The Service currently lacks both the budget and time needed to conduct such research before meeting our court-ordered final rule deadline. In sum, the Service believes that society places the utmost value on conserving any and all threatened and endangered species and the habitats upon which they depend and thus needs only to consider whether the economic impacts (both positive and negative) are significant enough to merit exclusion of any particular area without causing the species to go extinct.

Comment: Several comments noted that demographic projections used in the DEA are inconsistent with certain development projects that are either planned or under construction.

Our Response: The projections used in the analysis are believed by CRA to be the best available. In some cases, they may overlook large, individual development projects which are difficult to forecast. Where such projects stand a reasonably foreseeable chance of being built, the FEA has been modified to reflect their presence. Additionally, the FEA incorporates up-to-date projections from the Association of Bay Area Governments which were not available upon publication of the DEA.

Comment: Several comments asked that results be presented at a finer level of detail than the census tract.

Our Response: The census tract is the smallest level of geographical distinction for which data are readily available and credible results can be obtained. Finer levels of detail give a false sense of precision which is not supported by the data or model.

Comment: Several comments stated that the DEA did not adequately consider impacts on agricultural landowners.

Our Response: The DEA calculates impacts on land values according to the impact of critical habitat on the likelihood and profitability of urban development.

Comment: One comment stated that the analysis only considered Phase I of the SMUD Cosumnes power plant expansion, while ignoring the effects of Phase II.

Our Response: The Phase I and Phase II of the Cosumnes power plant have been removed from the designation based the PCEs not being present and the area not meeting our criteria for designation (see ''Criteria Used To Identify Critical Habitat'').

Comment: A commenter has asserted that there may be a conflict of interest, because we have contracted with Dr. David Sunding and CRA International to develop the economic analysis of this designation of critical habitat for the Central population of the CTS because he previously conducted a study of critical habitat economics funded by the building industry and other commercial interests. The commenter suggests that the use of an economic model originally developed in the course of this study is inappropriate.

Our Response: We do not believe that hiring Dr. David Sunding and CRA International to conduct the economic impact analysis of this critical habitat designation, considering his prior receipt of research funding from the building industry, establishes a conflict of interest. CRA International performed a conflict check prior to initiating work on the current study and no conflicts were discovered. Neither CRA nor Dr. Sunding holds any financial interests that would be benefited as an outcome of the analysis and subsequent critical habitat designation.

Summary of Changes From Proposed Rule

In preparing the final critical habitat designation for the Central population of the CTS, we reviewed comments received on the proposed designation. In addition to minor clarifications in the text pertaining to the geographic regions, we made changes to our proposed designation, as follows:

(1) We revised the proposed critical habitat units based on comments and biological information received during the public comment periods.

(2) Under section 4(a)(3) of the Act, we did not designate DOD lands that have approved INRMPs in place which benefit the species. Under sections 3(5)(a) and 4(b)(2) of the Act, we excluded properties with adequate management plans that cover the CTS and its habitat. For more information, refer to ''Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act'' below.

(3) We adjusted the boundaries of the proposed units as feasible to remove areas that do not contain the primary constituent elements or were included in the proposed rule as a result of a mapping error.

(4) Collectively, we excluded or removed a total of approximately 183,556 ac (74,284 ha), of land from this final critical habitat designation.

(a) The San Francisco Bay National Wildlife Refuge (East Bay Region, Unit 4) is excluded from critical habit since it is actively managed for the conservation of the species. The San Luis National Wildlife Refuge Complex (Central Valley Region, Units 12 and 13) is also excluded from critical habitat (see ''Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act'' below) for the same reason.

(b) Fort Hunter-Liggett (Central Coast Region, Unit 5a and 5b), portions of Camp Parks (East Bay Region, Unit 18), and the Naval Weapons Station at Concord (Central Valley Region, Unit 14) are excluded from critical habitat units due to reasons of national security and training mission readiness purposes. The Naval Weapons Station at Concord has also been identified as an area with increased economic costs and would be covered under the Draft East Contra Costa Habitat Conservation Plan should this military facility be subject to base closure.

(c) California Department of Fish and Game's Stone Corral Ecological Reserve, Tulare Co. (Southern San Joaquin, Units 4 and 5b), and Calhoun Cut Ecological Reserve in Solano Co. (portion of Central Valley, Unit 2) are excluded from critical habitat based on management plans and management practices being implemented for the areas. Additionally, a portion of East Bay Region Unit 10 was excluded based on an existing management plan for portions of the unit.

(d) Central Valley Units 14, 15, 16 and portions of Unit 17 (Contra Costa Co.) were excluded based on the Draft East Contra Costa Habitat Conservation Plan.

(e) The Southern San Joaquin Units 1, 2 and 3, Central Valley Unit 3, and East Bay Unit 10 were refined based on information received.

Please refer to Table 1 for the amount of area changed from proposed to final. For a detailed discussion of all exclusions and exemptions, please refer to ''Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act'' below.

(5) We adjusted the Geographic Region boundary as a result of published scientific literature (Shaffer *et al.* 2004). The boundary identified in the proposed rule was based on the unpublished manuscript (Shaffer *et al.* unpublished data) from which the final published literature was developed. The resulting change in the boundary adjusted the number of units in the Central Valley Region, the East Bay Region, and the Central Coast Region. Unit 1 of East Bay Region (as identified in the proposed rule) is now Unit 19 of the Central Valley Region and Unit 4 of Central Coast Region (as identified in the proposed rule) is now Unit 17 of the East Bay Region.

TABLE 1.—PROPOSED AND FINAL CRITICAL HABITAT CHANGES

Geographic region	Federal lands		State lands		Other lands		Total	
	ac	ha	ac	ha	ac	ha	ac	ha
Central Valley:								
Proposed	14,708	5,952	2,416	978	172,013	69,611	189,137	76,541
Final	17	7	0	0	97,028	39,273	97,045	39,280
Southern San Joaquin:								
Proposed	0	0	5,386	2,180	27,239	11,023	32,625	13,203
Final	0	0	0	0	20,293	8,212	20,293	8,212
East Bay:								
Proposed	691	280	9,350	3,784	105,831	42,828	115,872	46,892
Final	20	8	2,767	1,120	66,086	26,744	68,873	27,872
Central Coast:								
Proposed	23,633	9,564	110	45	21,288	8,615	45,031	18,224
Final	0	0	110	45	12,788	5,175	12,898	5,220
Grand Totals:								
Proposed	39,032	15,796	17,262	6,986	326,371	132,078	382,665	154,860
Final	37	15	2,877	1,164	196,195	79,397	199,109	80,576
Change	39,002	15,781	14,385	5,822	130,176	52,681	183,556	74,284

Critical Habitat

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

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 requires consultation on Federal actions that are likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow government or public access to private lands.

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

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may require special management or protection. Thus, we do not include areas where existing management is sufficient to conserve the species. (As discussed below, such areas may also be excluded from critical habitat pursuant to section 4(b)(2) of the Act.) Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species so require, we will not designate critical habitat in areas outside the geographic area occupied by the species at the time of listing. An area currently occupied by the species but not known to be occupied at the time of listing will likely contain those features essential to the conservation of the species and, therefore, included in the critical habitat designation.

The Service's Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271); and Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658); and the associated Information Quality Guidelines issued by the Service provide criteria, establish procedures, and provide guidance to ensure that decisions made by the Service represent the best scientific and commercial data available. They require Service biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information is generally the listing package for the species. Additional information sources include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge. All information is used in accordance with the provisions of Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service.

Section 4 of the Act requires that we designate critical habitat on the basis of what we know at the time of designation. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

Areas that support populations, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Federally funded or permitted

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.

As required by section 4(b)(1)(A) of the Act, we used the best scientific and commercial data available in determining areas that contain those features essential to the conservation of the CTS. We have reviewed the overall approach to the conservation of the CTS undertaken by local, State, and Federal agencies operating within the species' range since its proposed listing in 2003 (68 FR 28648; May 23, 2003). 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 that were occupied at the time of listing. These areas were identified by recognized extant species occurrences in CNDDB (2004). We determined critical habitat units on the basis of maintaining self-sustaining extant occurrences that are necessary for the conservation of the species. The critical habitat units represent the genetic range of the Central population of the CTS, and they include representative geographical and elevation ranges, as well as higher density aggregations of extant occurrences within the four geographical regions (see ''Criteria'' section below). The extant occurrences within critical habitat units are a result of data identified 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 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 CTS location points with 0.7 mile buffers (CNDDB 2004) (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).

The resulting shape files (delineating historic geographical range and potential suitable habitat within each of the four geographic regions) were then evaluated. Elevation and hydrologic ranges were further refined and land areas identified as non-habitat for the CTS (i.e., not containing the primary constituent elements) (see Primary Constituent Elements Section below) were avoided. We also included applied information received during the comment periods that pertain to the lack of suitable habitat areas on specific geographic areas that were originally included in the proposed critical habitat designation. We removed some areas because the areas do not contain one or more PCEs. We excluded areas that do not contain one or more of the primary constituent elements or were not 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 species needs for conservation.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to 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, the PCEs, that are essential to the conservation of the species, and that may require special management considerations and protection. These include, but are not limited to: Space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The four geographic regions used for designation as critical habitat for the Central population of the CTS are designed to provide needed aquatic and upland refugia habitats for adult salamanders to maintain and sustain extant occurrences of CTS throughout their geographic and genetic ranges and provide those habitat components essential for the conservation of the species. Due to the complex life history and dispersal capabilities of CTS, and to the dynamic nature of the environments in which the species is found, the PCEs described below are expected to be found throughout the units that are being designated as critical habitat. Special management, such as habitat rehabilitation efforts (*e.g.,* removal of nonnative predators, control of introduced (other) tiger salamanders, and erosion and sediment control measures), may be necessary throughout the areas being proposed. Critical habitat for the Central population of the CTS will provide for breeding and nonbreeding habitats and for dispersal between these habitats, as well as allowing for an increase in the size of CTS populations. Critical habitat for the Central population of the CTS includes essential aquatic habitat features, essential upland (nonbreeding season) habitat features with underground refugia, and essential dispersal habitat features connecting occupied CTS locations to each other.

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, we have determined that the Central population of the CTS requires the following primary constituent elements:

(1) Standing bodies of fresh water (including natural and manmade (*e.g.,* stock)) ponds, vernal pools, and other ephemeral or permanent water bodies which typically support inundation during winter rains and hold water for a minimum of 12 weeks in a year of average rainfall.

(2) Upland habitats adjacent and accessible to and from breeding ponds that contain small mammal burrows or other underground habitat that CTS depend upon for food, shelter, and protection from the elements and predation.

(3) Accessible upland dispersal habitat between occupied locations that allow for movement between such sites.

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

The requisite aquatic habitat described as the first PCE is essential for the Central population of the CTS for providing space, food, and cover necessary to support reproduction and to sustain early life history stages of larval and juvenile CTS. Aquatic and breeding habitats consist of fresh water bodies, including natural and artificially made (*e.g.*, stock) ponds, vernal pools, and vernal pool complexes. 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 , the amount of time needed for salamander larvae to

metamorphose into juveniles 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 these essential aquatic and breeding habitats, the CTS would not survive, reproduce, complete metamorphosis, and survive to adulthood.

Essential upland habitats containing underground refugia described as the second PCE are essential for the survival of the Central population's adult CTS and juveniles that have recently undergone metamorphosis. Adult and juvenile CTS are primarily terrestrial; adult CTS enter aquatic habitats only for relatively short periods of time to breed. For the majority of their life cycle, CTS survive within upland habitats containing underground refugia in the form of small mammal burrows. The Central population of the CTS cannot persist without upland underground refugia. These underground refugia provide protection from the hot, dry weather typical of California in the nonbreeding season. The Central population of the CTS also forage in the 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, CTS would not be able to survive.

The dispersal habitats described as the third PCE are essential for the conservation of the Central population of the CTS. Protecting the ability of California tiger salamander 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 Central population of the California 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 CTS to reach sexual maturity; most do not breed until four or five years of age. While individuals may survive for more than ten 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 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 dispersal distance of other ponds (Trenham *et al.* 2001).

Dispersal habitats described as the third PCE are also essential in preserving the Central population of the CTS's population structure. The life history and ecology of the CTS make it likely that this species has a metapopulation structure (Hanski and Gilpin 1991). A metapopulation is a set of extant occurrences or 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. A metapopulation's persistence depends on the combined dynamics of these local extinctions and the subsequent recolonization of these areas through dispersal (Hanski and Gilpin 1991; Hanski 1994).

Essential dispersal habitats generally consist of upland areas adjacent to essential aquatic habitats that are not isolated from essential aquatic habitats by barriers that Central population of the CTS cannot cross. Essential dispersal habitats provide connectivity among CTS suitable aquatic and upland habitats. While the Central population of the 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 CTS. We are designating critical habitat that allows for dispersal between extant occurrences within 0.70 mi (1.1 km) of each other. This distance is consistent with the final listing rule (69 FR 47212; August 4, 2004) and the final critical habitat designation for the CTS in Santa Barbara County (69 FR 68568; November 24, 2004). Trenham (pers comm. 2004) predicted that a distance of 0.70 mi would capture 99 percent of all interpond movements between breeding adults. Including interpond movements within the critical habitat designation is essential to the conservation of the species because these movements capture the extent of genetic exchange between individuals and help support a long term conservation strategy for this species.

In summary, the PCEs consist of three components. At a minimum, these elements found in aquatic and upland habitats and connected dispersal habitats that are free of barriers.

Criteria Used To Identify Critical Habitat

We are designating critical habitat on lands that we have determined are occupied at the time of listing and contain the PCEs and those additional features found to be essential to the conservation of the Central population of the CTS.

In our determination of critical habitat for the Central population of the CTS, 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. After identifying the principal PCEs that are essential to the conservation of the CTS, we used the PCEs in combination with occurrence data; geographic distribution; GIS data layers for habitat mapping; vegetation, topography, watersheds, and current land uses; scientific information on the biology and ecology of the CTS; and accepted conservation principles for threatened or endangered species.

To identify areas that contain those features which are essential to the conservation of the CTS within the occupied range of the Central population of the CTS, we first looked at the range of the Central population, as was reported and mapped by biologists who had conducted CTS

surveys throughout the range of the species. The range boundaries were developed based on the principles of conservation science, genetics of the species, topography, geology, soils, vernal pool type distribution, and survey information (CNDDB 2004; CDFG 1998). To the best of our ability, we did not include non-habitat areas such as subdivisions, intensive agricultural areas, or areas containing slopes too steep to support aquatic habitats or upland refugia necessary for the conservation of CTS.

We then focused on areas within the range where we had credible records (*e.g.,* museum voucher specimens, reports filed by biologists holding section 10(a)(1)(A) recovery permits) indicating CTS presence (CNDDB 2004). The known locations of Central population of the CTS fall into four geographic regions of Central California. These geographic regions correspond to the four regions identified by Shaffer *et al.* (2004) outside Sonoma and Santa Barbara Counties and are separated by either geological or topographical features, or ecological zones, or both. Our conservation strategy for the Central population focuses on those extant locations that provide sufficient aquatic and upland habitats to ensure high enough adult survival to maintain and sustain extant occurrences of CTS in each of these four geographic regions within the range of the Central population of the species. Wherever possible within these four geographical regions, we included denser groups of aggregated extant occurrences that possessed the minimum size resolution for long term preserve design and are representative of the geographic extents of each separate genetic region. Each of the critical habitat units possesses a unique combination of occupied aquatic and upland habitat types, landscape features, surrounding land uses, vernal pool types, ponds, geographical range, genetic composition, and topography.

We determined that conserving the Central Population of 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. An explanation of how we determined the amount of upland habitat which contained features that are essential for the conservation of the CTS in each critical habitat unit is described below in more detail.

Protecting the upland refugia as watersheds of occupied extant occurrences of the Central population of the CTS is essential for four reasons: (1) To provide terrestrial foraging, cover, and shelter for CTS upland existence; (2) to ensure that the amount of water entering an extant occupied aquatic habitat is not altered to such an extent to allow predators (such as bullfrogs and fish) to colonize the site; (3) to maintain the hydrologic functioning of the wetland to ensure inundation periods (*e.g.* 12 week minimum in all but the driest years) are maintained; and, (4) to preserve water quality by minimizing the entry of sediments and other contaminants to the known occupied habitat. Therefore, our critical habitat boundaries include the upland refugia of watersheds containing known occupied occurrences within the range of the Central population of the CTS.

We then identified the amount of upland habitat surrounding these extant occurrences where adult CTS live during the majority of their life cycle. To determine a general guideline for the amount of upland habitat necessary to support an occurrence of adult CTS, we reviewed the primary literature regarding CTS upland habitat use, including Trenham (2000), Trenham *et al.* (2000 and 2001), and Trenham and Shaffer (in review).

The best scientific peer-reviewed data indicate that CTS 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, CTS 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 scientific data on upland movement distances. First, the mark-recapture study of Trenham *et al.* (2001) showed that CTS 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 CTS at upland locations at least 1,300 ft (400 m) from this high quality breeding pond. In a recent trapping effort, 16 percent of total captures of juvenile salamanders occurred at 2,300 ft (700 m) (Trenham *et al.* 2001). Trenham and Shaffer (in review) determined that conserving upland habitats within 2,200 ft (670 m) of breeding ponds would protect 95 percent of CTS 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 0.70 mi (1.1 km) dispersal distance (radius) as a guide for the amount of upland habitat around known occupied extant occurrences to be mapped as critical habitat for the purposes of preserving the Central population of the CTS within small mammal burrows (PCE 2). However, although the studies discussed above provide an approximation of the distances that CTS 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 CTS movements in a particular landscape. As a result, in some designated units, we made adjustments to the upland areas to include additional areas up to the watershed boundaries or to include habitat containing the PCEs. In other cases, the critical habitat units were reduced so as not to include non-habitat areas (those not exhibiting the PCEs) from the designation.

Some agricultural lands were included if they were directly adjacent to known extant occurrences and considered essential for upland refugia or connectivity between occurrences and were not considered a barrier to movement.

To determine the areas to be mapped within each unit for the purposes of dispersal (*i.e.* PCE 3), we used a distance of 0.70 mi (1.1 km) as a general guide. The only known study we are aware of that specifically investigated movement of California tiger salamanders between breeding ponds projected that 0.70 mi (1.1 km) would encompass 99 percent of interpond dispersal (Trenham *et al.* 2001). However, we recognize that (as with movements in search of suitable underground refugia) upland habitat features influence CTS movements within a particular landscape.

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 from designated critical habitat 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 because the benefits of exclusion outweigh the benefits of inclusion as discussed in section 4(b)(2) of the Act.

We are aware of five HCPs under various stages of development; however, these draft HCPs are not proposed for exclusion because we have not made a determination that they meet our issuance criteria nor that they provide adequate conservation for CTS. In addition, they are not ready for public notice and comment.

When defining critical habitat boundaries, we made an effort to exclude all developed areas, such as towns, housing developments, and other lands unlikely to contain primary constituent elements essential for CTS conservation. However, our minimum mapping units do not allow us to exclude all developed lands, such as outbuildings, roads, paved areas, lawns, and other similar areas that are unlikely to contain any of the PCEs in this rule. Federal actions limited to these non habitat areas would not trigger a section 7 consultation, unless those proposed actions would affect other threatened or endangered species and/or the PCEs in adjacent critical habitat.

In summary, we designate as critical habitat four critical geographical regions where the Central population of the CTS are known to be extant because we believe protection of the units within these four regions is essential to the conservation of the species. These extant occurrences represent approximately 68 percent of all extant occurrences across the range of the Central population of CTS. Using a dispersal distance of 0.70 mi (1.1 km) from each of these occurrences, the four geographical areas also include some other occurrences of the CTS.

A brief discussion of each area designated as critical habitat is provided in the unit descriptions below. Additional detailed documentation concerning the essential nature of these areas is contained in our supporting record for this rulemaking.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the areas which contain those features determined to be essential for conservation may require special management considerations or protections. As we undertake the process of designating critical habitat for a species, we first evaluate lands defined by those physical and biological features essential to the conservation of the species for inclusion in the designation pursuant to section 3(5)(A) of the Act. Secondly, we evaluate lands defined by those features to assess whether they may require special management considerations or protection.

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

(1) Introduction of non-native predators such as bullfrogs and fish can be significant threats to the California tiger salamander breeding ponds in Sonoma County;

(2) Activities that could disturb aquatic breeding habitats during the breeding season, such as heavy equipment operation, ground disturbance, maintenance projects (*e.g.* pipelines, roads, powerlines), off-road travel or recreation;

(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 refugia used by California tiger salamander in Sonoma County for foraging, protection from predators, and shelter from the elements;

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

(6) Activities that disrupt vernal pool complexes' ability to support California tiger salamander breeding function.

Critical Habitat Designation

We are designating 31 units as critical habitat for the Central population of the California tiger salamander throughout four geographic regions. These final critical habitat areas described below constitute our best assessment at this time of the areas that contain those habitat features essential for the conservation of the Central population of the CTS that may require special management. The four regions containing critical habitat are: (1) The Central Valley Region; (2) the Southern San Joaquin Valley Region; (3) the East Bay Region (including Santa Clara Valley area); and (4) the Central Coast Region. The maps in this final rule present a pictorial representation of the four geographical areas (see Figure 1) and are not accurate with regard to the exact dividing line between the Central Coast, Central Valley, East Bay, and Southern San Joaquin geographical regions.

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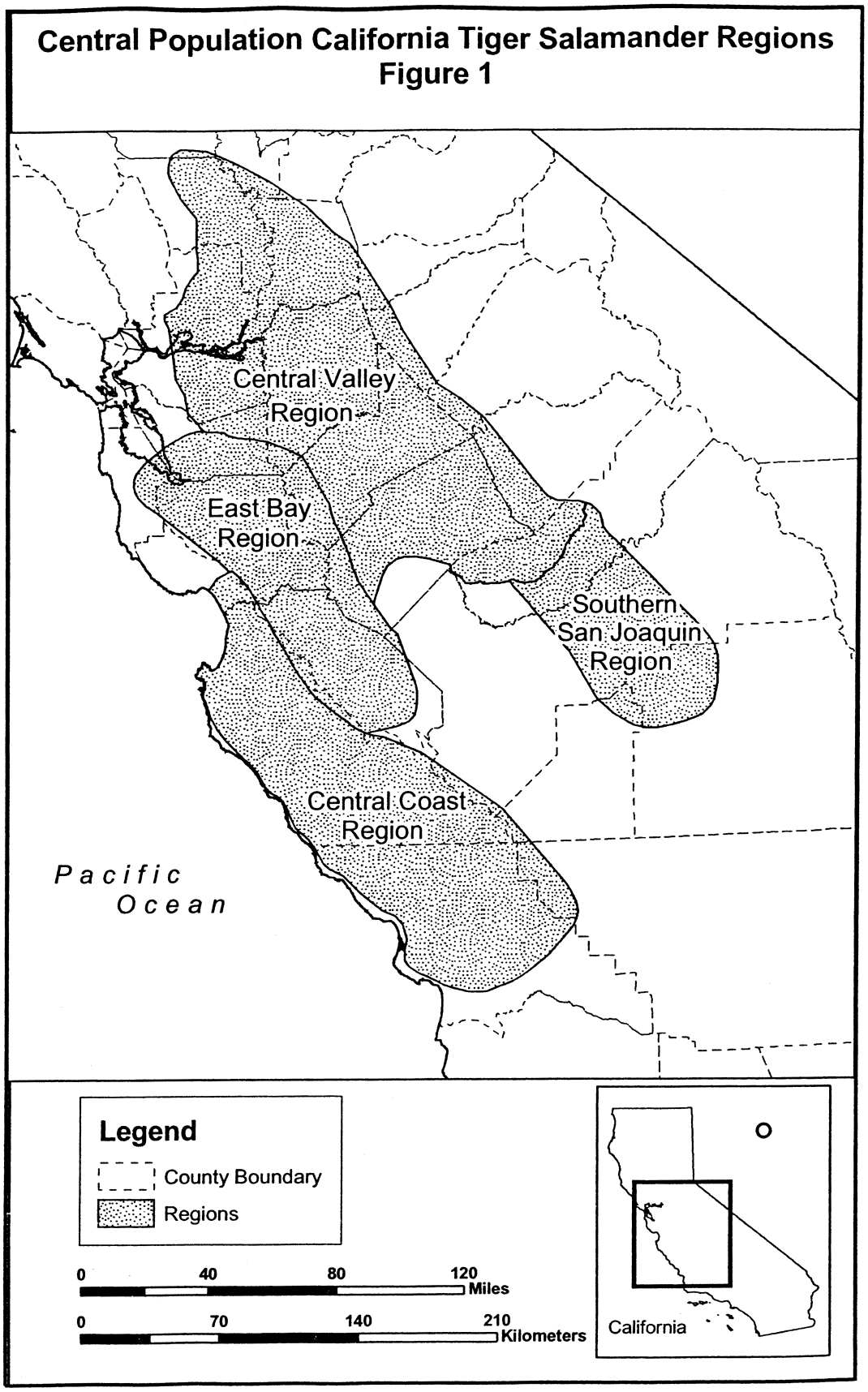

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Although we are aware that some amounts of Federal, State, or local government lands occur within these boundaries, the majority of these areas of critical habitat designation occur on privately owned land. The maps in the rule portion of this document begin with Map 7 and run consecutively because they follow Maps 1–6 in the final critical habitat rule for the CTS in Santa Barbara County, which was already published in the **Federal Register** (69 FR 68568, November 24, 2004). Also, Map 36 in the proposed critical habitat rule for the CTS in Sonoma County already published in the **Federal Register** (70 FR 44301, August 2, 2005).

Table 2 shows the approximate sizes of critical habitat units and associated land ownership within each of the four geographical regions.

TABLE 2.—APPROXIMATE SIZES AND LAND OWNERSHIP OF CRITICAL HABITAT UNITS BY GEOGRAPHICAL REGION

Geographic region/proposed unit	Federal lands		State lands		Other lands		Total	
	ac	ha	ac	ha	ac	ha	ac	ha
Central Valley Region								
Unit 1	.....	.....	.....	.....	2,730	1,105	2,730	1,105
Unit 2	.....	.....	.....	.....	5,699	2,306	5,699	2,306
Unit 3	.....	.....	.....	.....	9,966	4,033	9,966	4,033
Unit 4	.....	.....	.....	.....	9,603	3,886	9,603	3,886
Unit 5	.....	.....	.....	.....	3,128	1,266	3,128	1,266
Unit 6	.....	.....	.....	.....	23,491	9,506	23,491	9,506
Unit 7	.....	.....	.....	.....	562	227	562	227
Unit 8	17	7	.....	.....	3,996	1,617	4,013	1,624
Unit 9	.....	.....	.....	.....	17,799	7,203	17,799	7,203
Unit 10	.....	.....	.....	.....	10,585	4,284	10,585	4,284
Unit 11	.....	.....	.....	.....	8,291	3,355	8,291	3,355
Unit 18	.....	.....	.....	.....	1,178	477	1,178	477
Area Total	17	7	.....	.....	97,028	39,266	97,045	39,273
Southern San Joaquin Region								
Unit 1a	.....	.....	.....	.....	3,808	1,541	3,808	1,541
Unit 1b	.....	.....	.....	.....	3,003	1,215	3,003	1,215
Unit 2	.....	.....	.....	.....	4,961	2,008	4,961	2,008
Unit 3a	.....	.....	.....	.....	1,626	658	1,626	658
Unit 3b	.....	.....	.....	.....	2,553	1,033	2,553	1,033
Unit 5	.....	.....	.....	.....	4,342	1,757	4,342	1,757
Area Total	0	0	0	0	20,293	8,212	20,293	8,212
East Bay Region								
Unit 3	.....	.....	.....	.....	619	251	619	251
Unit 5	.....	.....	.....	.....	2,814	1,139	2,814	1,139
Unit 6	.....	.....	2,767	1,120	5,209	2,108	7,976	3,228
Unit 7	.....	.....	.....	.....	9,080	3,675	9,080	3,675
Unit 8	.....	.....	.....	.....	2,535	1,026	2,535	1,026
Unit 9	.....	.....	.....	.....	2,934	1,187	2,934	1,187
Unit 10a	.....	.....	.....	.....	194	79	194	79
Unit 10b	.....	.....	.....	.....	698	282	698	282
Unit 11	.....	.....	.....	.....	6,991	2,829	6,991	2,829
Unit 12	.....	.....	.....	.....	6,642	2,688	6,642	2,688
Unit 13	.....	.....	.....	.....	2,409	975	2,409	975
Unit 14	.....	.....	.....	.....	2,212	895	2,212	895
Unit 15A	.....	.....	.....	.....	2,722	1,102	2,722	1,102
Unit 15B	.....	.....	.....	.....	194	79	194	79
Unit 16	.....	.....	.....	.....	16,952	6,860	16,952	6,860
Unit 17	20	8	.....	.....	3,881	1,571	3,901	1,579
Area Total	20	8	2,767	1,120	66,086	26,744	68,873	27,872
Central Coast Region								
Unit 3	.....	.....	110	45	3,555	1,439	3,665	1,483
Unit 6	.....	.....	.....	.....	9,233	3,736	9,233	3,736
Area Total	.....	.....	110	45	12,788	5,175	12,898	5,219
Grand Totals	37	15	2,877	1,164	196,195	79,397	199,109	80,576

The critical habitat of the Central population of the California tiger salamander represents occupied aquatic and upland habitats throughout the species' range in California and includes selective representative aquatic and upland habitat areas to capture the genetic, geographic, and ecological variability of the species, which, when taken together, should ensure the long term conservation of the species. Genetic variation within the species is represented by units within each of four large geographic regions '' Central Valley, Southern San Joaquin, East Bay, and Central Coast. Brief descriptions of the critical habitat units and reasons why these units are essential for the conservation of the California tiger salamander are presented below. To the best of our knowledge, each unit contains essential occupied aquatic, upland, and dispersal habitat features. Table 3 below contains the approximate area of critical habitat designated within each county.

TABLE 3.—APPROXIMATE CRITICAL HABITAT WITHIN EACH COUNTY

County	Proposed designation		Final designation		Change between proposed and final designation	
	Acres	Hectares	Acres	Hectares	Acres	Hectares
Alameda	67,599	27,356	1,178	477	66,421	26,880
Amador	1,506	609	1,506	609	0	0
Calaveras	4,944	2,001	3,606	1,459	1,338	542
Contra Costa	43,232	17,496	0	0	43,232	17,495
Fresno	16,375	6,627	7,416	3,001	8,959	3,626
Kern	1,496	605	1,496	605	0	0
Kings	885	358	885	358	0	0
Madera	17,413	7,047	15,089	6,106	2,325	941
Mariposa	321	130	321	130	0	0
Merced	49,748	20,132	32,963	13,339	16,785	6,793
Monterey	32,392	13,109	4,159	1,683	28,233	11,426
Sacramento	10,191	4,124	9,966	4,033	225	91
San Benito	24,575	9,945	24,308	9,837	267	108
San Joaquin	21,120	8,547	17,516	7,089	3,604	1,458
San Luis Obispo	7,736	3,131	7,736	3,131	0	0
Santa Clara	42,751	17,301	39,450	15,965	3,301	1,336
Solano	5,944	2,405	5,699	2,306	245	99
Stanislaus	24,406	9,877	17,891	7,240	6,515	2,637
Tulare	6,243	2,526	5,197	2,103	1,046	423
Yolo	3,789	1,533	2,730	1,105	1,059	429
Total	382,666	154,860	199,109	80,577	183,557	74,283

We present brief descriptions of all units, and reasons why they are essential for the conservation of the Central population of the CTS, below.

Central Valley Geographic Region

The Central Valley Geographic Region is generally found in an area from northern Yolo County south and southeast to the northern half of Madera County, including eastern Solano and Contra Costa counties. It is 4.9 million ac (1.9 million ha) in size. Within the Central Valley Geographic Region we are designating 12 critical habitat units for the Central population of the California tiger salamander that total approximately 97,045 ac (39,273 ha). The 12 critical habitat units contain PCEs and include a total of 44 extant occurrences of CTS. The 12 units occur in four of 17 vernal pool regions within California. These four regions are Solano-Colusa, Southeastern Sacramento Valley, Southern Sierra Foothills, and San Joaquin Valley. The units are distributed across the Region and represent the varying habitats and environmental conditions available to the California tiger salamander within the area. 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). 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. Special management requirements for these units include management of erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat and alter upland refugia and dispersal habitat, and activities such as road development that may result in barriers to dispersal.

Unit 1, Dunnigan Creek Unit, Yolo County

This unit is the only unit in Yolo County, encompasses approximately 2,730 acres (1,105 ha). This unit contains all three of the PCEs. Three extant occurrences of the species have been documented within this unit. Unit 1 is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographical Region. Unit 1 represents the northern portion of the range and the represents the northern portion of the Solano-Colusa vernal pool region. Unit 1 is roughly bordered by Interstate 5 on the east, Bird Creek on the south, and Buckeye Creek on the north and west. Land ownership is private. Threats that require special management considerations for this unit include agricultural land conversion and the introduction of predators such as mosquito fish into seasonal wetlands for the control of mosquitoes.

Unit 2, Jepson Prairie Unit, Solano County

This unit encompasses approximately 5,699 ac (2,306 ha), and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley

Geographic Region. Unit 2 represents the northwestern portion of the species' distribution and represents the southern end of Solano-Colusa vernal pool region in Solano County. This unit contains all three of the PCEs and four extant occurrences of the species in one aggregation. Unit 2 generally is 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 also includes some California Department of Fish and Game lands. Threats that require special management considerations for this unit include loss and destruction of occupied habitat due to agricultural land conversion.

Unit 3, Southeastern Sacramento Unit, Sacramento County

This unit encompasses approximately 9,966 ac (4,033 ha), is the only unit in Sacramento County, and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 3 represents the northern-central portion of the range of the species, the southern portion of the Southeastern Sacramento Valley vernal pool region, and is only one of a few occupied areas in the Sacramento Valley. This unit contains all three of the PCEs. A cluster of eight extant occurrences has been documented in this unit. Unit 3 generally is bordered on the south by the Sacramento and San Joaquin County border dividing line, Laguna Creek on the north, the Sacramento and Amador County border dividing line on the east, and Alta Mesa Road on the west. Land ownership is private. Threats that require special management considerations for this unit include road construction, agricultural land conversion, urban development, and predators such as bullfrogs. Development and agricultural land conversion could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity. Aquatic predators such as bullfrogs require special management because they can impair breeding success.

Unit 4, Northeastern San Joaquin Unit, and Amador Counties

This unit encompasses approximately 9,603 ac (3,886 ha), is the only one in San Joaquin and Amador counties, and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 4 is the second unit in the Southeastern Sacramento Valley vernal pool region. This unit contains all three of the PCEs and five extant occurrences in one aggregation. Unit 4 roughly is found over an area south of the San Joaquin and Sacramento county dividing line, east of Day Creek Road, north of Liberty Road, and west of Comanche and Jackson Valley Roads. Land ownership is private. Threats that require special management considerations for this unit include developments and associated road construction that could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 5, Indian Creek Unit, Calaveras County

This unit encompasses appropriately 3,128 ac (1,266 ha). This unit is essential to the conservation of the CTS because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 5 represents the northeastern portion of the range and the Southeastern Sacramento Valley vernal pool region. Four extant occurrences of the species have been documented in this unit. It contains all three PCEs and generally is 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. Threats that require special management considerations for this unit include urban developments, agricultural land conversions, and associated infrastructure including road construction that could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 6, Rock Creek Unit, Calaveras, San Joaquin, and Stanislaus Counties

This 23,491 ac (9,506 ha) unit is essential to the conservation of the Central population of the California tiger salamander because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 6 contains all three of the PCEs and represents the northern end of the Southern Sierra Foothills vernal pool region and a portion of the east-central portion of the San Joaquin Valley. This unit contains five extant occurrences of the species in one aggregation. This unit is approximately located 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. Threats that require special management considerations for this unit include urban developments, agricultural land conversions, and associated infrastructure including road construction, which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 7, Rodden Lake Unit, Stanislaus County

This unit contains approximately 562 ac (227 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 7 is located within the northern end of the Southern Sierra Foothill vernal pool region in the eastern San Joaquin Valley, the only unit near the Stanislaus River. Three extant occurrences of the Central CTS have been documented within this unit. This unit is roughly bounded by Horseshoe Road on the east, Frankenheimer Road on the north, Twenty Eight Mile Road on the west, and the Stanislaus River of the south. Land ownership is private. Threats that require special management considerations for this unit include urban developments, agricultural land conversions, and associated infrastructure including road construction, which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 8, La Grange Ridge Unit, Stanislaus and Merced Counties

This unit contains approximately 4,013 ac (1,624 ha) and is essential for the conservation of the Central CTS because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 8 occurs within the northeastern area of the 2,167,907 ac (877,352 ha) Southern Sierra Foothills vernal pool region and represents the east central portion of the species' distribution within the Central Valley Geographic Region. It contains

five extant occurrences of the species and all three of the PCEs. This unit is roughly defined as west of Cardoza Ridge, east of Los Cerritos Road, south of State Route 132, and north of Fields Road. Land ownership is private. Threats that require special management considerations for this unit include Threats that require special management considerations for this unit include urban developments, agricultural land conversions, and associated infrastructure including road construction that could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 9, Fahrens Creek Unit, Merced County

This unit contains 17,799 ac (7,203 ha) and is essential for the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 9 represents the 2,167,907 ac (877,352 ha) South Sierra Foothills vernal pool region in Merced County, the central portion of the species' distribution in the eastern San Joaquin Valley, and the south-eastern portion of the species' distribution in the Central Valley Geographic Region. Twenty extant occurrences of the species are documented in this unit. This unit 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 of the unit is private. Threats that require special management considerations for this unit urban developments, agricultural land conversions, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 10, Miles Creek Unit, Merced County

This unit contains approximately 10,585 ac (4,284 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 10 is the only other unit that occurs within the Southern Sierra Foothill vernal pool region in Merced County and represents the central portion of the species' distribution in the eastern San Joaquin Valley and the south-eastern portion of the species' distribution in the Central Valley Geographic Region. Nine extant occurrences have been documented within this unit, which 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. Threats that require special management considerations for this unit include urban developments, agricultural land conversions, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 11, Rabbit Hill Unit, Madera County

This unit contains 8,291 ac (3,355 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Valley Geographic Region. Unit 11 represents the Sierra Foothills vernal pool region in Madera County and is the southernmost unit within the Central Valley Geographic Region. This unit contains all three of the primary constituent elements, including vernal pools and upland dispersal habitats that support six extant occurrences of the species. Unit 11 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. Threats that require special management considerations for this unit include urban developments, agricultural land conversions, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Units 12–17 have been excluded from the final designation. See section ''*Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act*—for more information.

Unit 18, Doolan Canyon Unit, Alameda County

This unit contains approximately 1,178 ac (477 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species in the Central Valley Geographic Region. Unit 18 represents the 485,120 ac (196,328 ha) Livermore vernal pool region and the western portion of the Central Valley Geographic Region. Two extant occurrences of the species are found in this unit. Unit 18 is south of the Contra Costa County line near Collier Canyon Road on the east and the south, and the City of Dublin on the west. Land ownership is private. Threats that require special management considerations for this unit include urban developments, agricultural land conversions, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 19, Patterson Unit, Alameda

Unit 19 has been excluded based on economic reasons. See ''*Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act'' for more information.*

Southern San Joaquin Valley Geographic Region

The Southern San Joaquin Valley Geographic Region contains approximately 1.4 million ac (566,580 ha) and is found from the southern half of Madera County south to northeastern Kings County and northwestern Tulare County. Within this Geographic Region we designate four critical habitat units that total approximately 20,293 ac (8,212 ha). The four critical habitat units contain approximately 20 known extant occurrences the Central population of the California tiger salamander. The critical habitat units represent the San Joaquin Valley and Southern Sierra Foothills vernal pool regions in the southern San Joaquin Valley. It is critical to conserve the CTS within a range of habitat types to capture the geographic, ecological, and genetic variability found in nature. Protecting a variety of occupied habitats and ecologic conditions will increase the ability of the species to survive random environmental (*e.g.* predators), natural (*e.g.* disease), demographic (*e.g.* low recruitment) or genetic (*e.g.* inbreeding) events.

The critical habitat units of the Southern San Joaquin Valley Geographical Region are essential to the conservation of the California tiger salamander because these units represent the range of geographic, genetic, and ecological variation found in nature and they contain the PCEs that support essential functions including, but not limited to, breeding, metamorphosing, dispersing, feeding, sheltering, and aestivating. Special management requirements for these units include management of erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Units 1a and 1b, Millerton Unit, Madera County

This 6,811 ac (2,756 ha) unit is comprised of two sub-units; Unit 1a (3,808 ac (1,541 ha)) and Unit 1b (3,003 ac (1,215 ha)). This unit is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species in the Southern San Joaquin Geographic Region. Unit 1 represents the Southern Sierra Foothills vernal pool region, one of two differing vernal pool regions in the Southern San Joaquin Geographic Region, and the southeastern portion of the species' distribution in the San Joaquin Valley. Unit 1 is the only unit within this vernal pool region in Madera County. The two subunits contain nine extant occurrences of the species. These subunits are 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 south of Berry Hill along O'Neal Road. Land ownership is private. Threats that require special management considerations for this unit include urban development, agricultural conversion, and associated infrastructure, including road construction, which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 2, Northeast Fresno, Fresno County

This unit is approximately 4,961 ac (2,008 ha) and is essential for the conservation of the Central population of the California tiger salamander because it is needed to maintain the current geographic and ecological distribution of the species in the Southern San Joaquin Geographic Region. Unit 2 represent the Southern Sierra Foothills vernal pool region within Fresno County, the northern end of the Southern San Joaquin Geographic Region, and the southern portion of the species' distribution in the San Joaquin Valley. This unit contains all three of the PCEs and 6 extant occurrence records This unit is located northeast of Fresno, southwest of Millerton Lake, east of Friant Road, and generally west of Academy. Land ownership is private. Threats that require special management considerations for this unit include urban development, agricultural conversion, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Units 3a and 3b, Hills Valley Unit, Fresno and Tulare Counties

This 4,181 ac (1,692 ha) unit is comprised of the two subunits Unit 3a (1,626 ac (658 ha)) and Unit 3b (2,553 ac (1,033 ha)). This unit is essential to the conservation of the Central population of the California tiger salamander because it is needed to maintain the current geographic and ecological distribution of the species in the Southern San Joaquin Geographic Region. The subunits comprising Unit 3 represent the foothills of northwest Tulare County, the Southern Sierra Foothills vernal pool region, and the southeastern portion of the species' distribution within the San Joaquin Valley. These subunits contain all three of the PCEs and five extant occurrences of the species. This unit is located south of State Highway 180, generally west of George Smith and San Creek Roads, north of Curtis Mountain, and east of Cove Road. Land ownership is private. Threats that require special management considerations for this unit include urban development, agricultural conversion, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 4, Seville Unit, Tulare County

This 415 ac (168 ha) unit has been excluded from the final designation. See section ''*Relationship of Critical Habitat to State Managed Ecological Reserve Land—Exclusions Under Section 4(b)(2) of the Act*'' for more information

Unit 5, Cottonwood Creek Unit, Tulare County

Unit 5 is approximately 4,342 ac (1,757 ha) and represents a significant area at the very southernmost portion of the range of the Central population of the California tiger salamander. This unit was originally called unit 5A in the proposed designation. This unit is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Southern San Joaquin Geographic Region. Unit 5 represents a low-elevation vernal pool complex within the San Joaquin Valley vernal pool region. Four extant occurrences have been documented within this unit, which 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 mostly private. Threats that require special management considerations for this unit include urban development, agricultural conversion, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Subunit 5B (629 ac (255 ha)) has been excluded from the final designation. See section ''*Relationship of Critical Habitat to State Managed Ecological Reserve Land—Exclusions Under Section 4(b)(2) of the Act*'' for more information.

East Bay Geographic Region

The East Bay Geographic Region is found in Alameda County, south to Santa Benito and Santa Clara counties, and west to the eastern portions of San Joaquin and Merced Counties. The East Bay Region contains 2.4 million ac (971,280 ha) and has approximately 24,045 ac (9,731 ha) of critical habitat. Within the East Bay Geographic Region we are designating 14 critical habitat units for the California tiger salamander that contain a number of extant occurrences of the Central population of

the California tiger salamander. The 14 critical habitat units within the Bay Area Geographic Region occur in the Livermore, Central Coast, and San Joaquin vernal pool regions. Special management requirements for these units include management of erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

It is critical to conserve the Central population of the California tiger salamander within the range of habitat types to capture the geographic and genetic variability found in nature. Protecting a variety of occupied habitats and conditions will increase the ability of the species to survive random environmental (*e.g.* predators), natural (*e.g.* disease), demographic (*e.g.* low recruitment), or genetic (*e.g.* inbreeding) events. The critical habitat units within the East Bay Geographic Region are essential to the conservation of the Central population of the California tiger salamander because these units collectively maintain the geographic, genetic, and genetic variability that currently exists within the range of the species. Some of the designated units are in pristine condition as indicated by the best scientific and commercial data, and habitat quality was another factor which we considered in our determination of what habitat is essential.

Unit 1, Patterson Unit, Alameda County

This 5,267 ac (2,132 ha) unit was moved to the Central Valley Region (see Unit 19 of Central Valley Region above). This unit has been excluded based on economic reasons. See ''*Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act*'' for more information.

Unit 2, Mendenhall Unit, Alameda County, was excluded from the final designation based on economic reasons. See ''*Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act*'' for more information.

Unit 3, Alameda Creek Unit, Santa Clara County

This unit contains 619 ac (251 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 3 represents the north-central portion of the Bay Area Geographic Region and the northwestern Livermore vernal pool region. This unit contains all three of the PCEs and three extant occurrences. Unit 3 generally is 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. Threats that require special management considerations for this unit include urban development, agricultural conversion, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity. Feral pigs and bullfrogs may require special management because can impair breeding success.

Unit 4, San Francisco Bay Unit, Alameda County

This 1,073 ac (434 ha) unit was excluded from the final critical habitat designation. See section ''*Relationship of Critical Habitat to U.S. Fish and Wildlife Refuge Land—Exclusions Under Section 4(b)(2) of the Act*'' for more information.

Unit 5, Poverty Ridge Unit, Santa Clara County

This unit is approximately 2,814 ac (1,139 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 5 represents the north-central portion of the Bay Area Geographic Unit and the southern end of the Livermore vernal pool region. It contains all three of the PCEs and six extant occurrences of the species. This unit is generally located west of Alum Rock, south of the Alameda and Contra Costa Counties dividing line, west of Kincaid Road, and north of Master Hill. Land ownership is private. Threats include conversion of grazing land to housing and commercial development.

Unit 6, Smith Creek Unit, Santa Clara County

This unit is approximately 7,976 ac (3,228 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 6 represents the north-central part of the range of the species within the Bay Area Geographic region and the northern range of the Central Coast vernal pool region. This unit contains all three of the PCEs and 10 extant occurrences of the species. Unit 6 is generally located west of Sugarloaf Mountain, south of Packard Ridge, east of Masters Hill, and north of Panochita Hill. This unit contains county, private, and University of California-owned lands. Threats that require special management considerations include urban development, agricultural conversion, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 7, San Felipe Creek Unit, Santa Clara County

This unit is approximately 9,080 ac (3,675 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 7 represents the center of the Bay Area Geographic Region and the north-central part of the Central Coast vernal pool region. It contains all three of the PCEs and four extant occurrences of the species. Unit 7 is generally located in west of Silver Creek, south of Panochita Hill, east of Bollinger Mountain, and north of Morgan Hill. Land ownership is private. Threats that require special management considerations include urban development, agricultural conversion, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity.

Unit 8, Laurel Hill Unit, Santa Clara County

This unit is approximately 2,535 ac (1,026 ha) and is essential for the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 8 represents the northwestern portion of the species' range in the Bay Area Geographic Region and the northwestern area of the Central Coast vernal pool region on the western side of the Santa Clara Valley. This unit contains all three of the PCEs and three extant occurrences. Unit 8

generally is located east of Morgan Hill, south of San Jose, west of the Santa Cruz Mountains, and north of Croy Ridge. Land ownership is private. Threats that require special management considerations for this unit include urban development and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity. Bullfrogs present in aquatic habitat may require special management because they can impair breeding success.

Unit 9, Cebata Flat Unit, Santa Clara County

This unit contains approximately 2,934 ac (1,187 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the East Bay Geographic Area. Unit 9 represents the center of the Bay Area Geographic Region and the central area of the Central Coast vernal pool region. It contains all three of the PCEs and three extant occurrences of the species. Unit 9 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. Threats that require special management considerations for this unit include urban development, and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity. Bullfrogs present in aquatic habitat may require special management because they can impair breeding success.

Units 10a and 10b, Lions Peak Unit, Santa Clara County

This unit is comprised of 892 ac (360 ha) in two subunits: (Unit 10a (194 ac (79 ha) and Unit 10b (698 ac (282 ha). It is essential for the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 10 represents only the second unit on the west side of the Santa Clara Valley within the center of the Bay Area Geographic Region and the center of the Central Coast vernal pool region. It contains all three of the PCEs and six extant occurrences of the species. Unit 10 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. Threats that require special management considerations for this unit include urban development and associated infrastructure including road construction which could destroy or degrade aquatic habitat essential for breeding and rearing; destroy, degrade, or fragment upland habitat essential for growth, feeding, resting, and aestivation; or destroy, degrade, or fragment habitat essential for dispersal and connectivity. Bullfrogs present in aquatic habitat may require special management because they can impair breeding success.

Unit 11, Braen Canyon Unit, Santa Clara County

This unit is comprised of 6,991 ac (2,829 ha) of habitat and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 11 represents the eastern central portion of the species range within the Bay Area Geographic Region and the central portion of the Central Coast vernal pool region. It contains all three of the PCEs and five extant occurrences of the species. Unit 11 is found in southern Santa Clara County generally west of Gilroy, south of Kelly Lake, east of Pacheco Lake, and north of Jamison Road. Land ownership is private. Threats that may require special management include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Unit 12, San Felipe Unit, Santa Clara and San Benito Counties

This unit is comprised of 6,642 ac (2,688 ha) of habitat and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 12 represents part of the center of the distribution within the Bay Area Geographic Region and the southernmost portion of Santa Clara County, northern San Benito County, and center of the Central Coast vernal pool region. It contains all three of the PCEs and 10 extant occurrences of the species. Unit 12 generally is found west of Camadero, south of Kickham Peak, east of San Joaquin Peak, and north of Dunneville. Land ownership is private. Threats include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Unit 13, Los Banos Unit, Merced County

This unit is comprised of 2,409 ac (975 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 13 represents a portion of the southeastern range of the species within the Bay Area Geographic Region and the San Joaquin Valley vernal pool region. It contains all three of the PCEs and three extant occurrences of the species. Unit 13 generally is 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. Threats include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Unit 14, Landgon Unit, Merced County

This unit is comprised of 2,212 ac (895 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. Unit 14 represents the easternmost distribution of the species within the Bay Area Geographic Region and is the only other unit that occurs within the San Joaquin Valley vernal pool region. It contains all of the PCEs and three extant occurrences of the species. Unit 14 generally is found west of Sweeney Hill, south of Gasten Bide Road, and north of Ortigalita Peak. Land ownership is private. Threats include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and

mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Units 15A and 15B, Ana Creek Unit, San Benito County

This unit is approximately 3,165 ac (1,280 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Bay Area Geographic Region. The unit is comprised of two subunits, 15A (2,722 ac (1,102 ha)) and 15B (194 ac (79 ha)). These subunits represent the southwestern portion of the species' range within the Bay Area Geographic Region and in the southern Central Coast vernal pool region. They contain all three of the PCEs and nine extant occurrences of the species. Unit 15A and B are generally located west of Hollister, north of Tres Pinos, east of Cibo Peak, and south of Coyote Peak. Land ownership is private. Threats include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Unit 16, Bitterwater Unit, San Benito County

This unit is approximately 16,952 ac (6,860 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the East Bay Geographic Region. Unit 16 represents the southernmost range of the species within the Bay Area Geographic Region and the southern end of the Central Coast vernal pool region. It contains all three of the PCEs and nine extant occurrences of the species. Unit 16 generally is found south of Pinnacles, east of Hernandez Reservoir, north of Lonoak, and west of Murphy Flat. Land ownership is private. Threats include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Unit 17, Gloria Valley Unit, Monterey and San Benito Counties (Formerly Central Coast Region, Unit 4)

This unit is comprised of 3,881 ac (1,571 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the East Bay Geographic Region. Unit 17 represents the northeastern portion of the range of the species within the Bay Area Geographic Region and the western area of the Central Coast vernal pool region. It contains all three of the PCEs and 10 extant occurrences of the species. Unit 17generally is located north of Soledad, east of the Pinnacles National Monument, south of Tres Pinos, and west of Gonzales. Land ownership is private. Threats include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Central Coast Geographic Region

The Central Coast Geographic Region is located from Monterey County to northeastern San Luis Obispo County and northwestern Tulare County. The Central Coast Geographic Region is 3.6 million ac (1.5 million ha) in size and contains two critical habitat units for the Central population of the California tiger salamander that total approximately 25,373 ac (10,268 ha). The critical habitat units within the Central Coast Geographic Region contain 14 extant occurrences of California tiger salamander that encompass a migration distance of 0.70 mi (1.1 km) from each cluster of known extant occurrences that compose the critical habitat units. Critical habitat is designated within the Central Coast, Livermore, and Carrizo vernal pool regions. Special management requirements for these units include management of erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

It is essential to conserve the Central population of the California tiger salamander within the range of habitat types to capture the geographic and genetic variability found in nature. Protecting a variety of occupied habitats and conditions will increase the ability of the species to survive random environmental (e.g. predators), natural (e.g. disease), demographic (e.g. low recruitment) or genetic (e.g. inbreeding) events. The critical habitat units within the Central Coast Geographic Region are essential to the conservation of the Central population of the California tiger salamander because these units collectively maintain the geographic, genetic, and genetic variability that currently exists within the range of the species. Some of the designated units are in pristine condition as indicated by the best scientific and commercial data, and habitat quality was another factor we considered in our determination of what habitat is essential.

Unit 1, Crazy Horse Canyon Unit, Monterey County

This 4,341 ac (1,757 ha) unit was excluded from the final critical habitat designation. See section. See ''*Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act*'' for more information.

Unit 2, Pilarcitos Canyon Unit, Monterey County

This 8,135 ac (3,292 ha) unit was excluded from the final critical habitat designation. See section. See ''*Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act*'' for more information.

Unit 3, Haystack Hill Unit, Monterey County

This unit is comprised of 3,665 ac (1,483 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Coast Geographic Region. Unit 3 represents the center of the Central Coast Geographic Region and the northwestern area of the Central Coast vernal pool region. It contains all three of the PCEs and 10 extant occurrences of the species. Unit 3 generally is located north of Soledad, east of Paloma Ridge, west of Jamesberg, and south of Carmel Valley. Land ownership within this unit is a mixture of private and

Hastings Natural History State Reserve. Threats include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Unit 4, Gloria Valley Unit, Monterey and San Benito Counties

This unit has been moved to the East Bay Region based on new information on geographic boundaries (see unit 17 East Bay Region).

Units 5A and 5B, Fort Hunter Liggett Unit, Monterey County

These subunits were excluded from the final critical habitat designation (15,395 ac (6,230 ha)). See ''*Relationship of Critical Habitat to Military Lands—Application of Section 4(a)(3) and Exclusions under Section 4(b)(2) of the Act*'' for more information.

Unit 6, Choice Valley, Kern and San Luis Obispo Counties

This unit is comprised of 9,233 ac (3,736 ha) and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species within the Central Coast Geographic Region. Unit 6 represents the very southern extension of the species' range in the Central Coast Geographic Region and is the only unit within the Carrizo vernal pool region. It contains all three of the PCEs and four extant occurrences of the species. Unit 6 generally is located in an area north of the Carrisa Highway, east of Antelope Valley, south of Cottonwood, and west of Shandon. Land ownership is private. Threats include erosion and sedimentation, pesticide application, introduction of predators such as bullfrogs and mosquito fish, disturbance activities associated with development that may alter the hydrologic functioning of the aquatic habitat, upland disturbance activities that may alter upland refugia and dispersal habitat, and activities such as road development and widening that may develop barriers for dispersal.

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as ''a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.''

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 critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. 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)). 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, the action agency ensures that their 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 critical habitat.

Federal activities that may affect California tiger salamanders or their critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from a Federal agency, such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act, a section 10(a)(1)(B) permit from the Service, or some other Federal action, including funding (e.g., Federal Highway Administration or Federal Emergency Management Agency funding), will also continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal and private lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat may also jeopardize the continued existence of the California tiger salamander. Federal activities that, when carried out, may adversely affect critical habitat for the California tiger salamander include, but are not limited to:

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

(2) Actions that change water flow regimes, damming, diversion, and channelization by any Federal agency;

(3) Actions that include 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) Actions regulating airport improvement activities by the Federal Aviation Administration;

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

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

We consider all critical habitat units to be occupied by the species at the time of listing. In this designation, we included only areas which were occupied at the time of listing. These areas were identified by documented extant species occurrences in CNDDB (2004) at the time of listing. We consider all of these units included in this final designation to be essential to the conservation of the Central population of the California tiger salamander because they represent the geographic, genetic, and ecological variability found in nature, but do not include all areas occupied by the species at the time of listing. Collectively, they provide sufficient quantity, quality, and distribution of habitat for the Central population of the California tiger salamander to survive random environmental (e.g. predators), natural (e.g. disease), demographic (e.g. low recruitment) or genetic (e.g. inbreeding) events.

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

Section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographic area occupied by the species on which are found those physical and biological features (i) essential to the conservation of the species and (ii) which may require special management considerations or protection. Therefore, areas within the geographic area occupied by the species that do not contain the features essential for the conservation of the species are not, by definition, critical habitat. Similarly, areas within the geographic area occupied by the species that do not require special management or protection also are not, by definition, critical habitat. To determine whether an area requires special management, we first determine if the essential features located there generally require special management to address applicable threats. If those features do not require special management, or if they do in general but not for the particular area in question because of the existence of an adequate management plan or for some other reason, then the area does not require special management.

We consider a current plan to provide adequate management or protection if it meets two criteria: (1) The plan provides management, protection or enhancement to the PCEs at least equivalent to that provided by a critical habitat designation; and (2) the Service has reasonable expectation the management, protection or enhancement actions will continue for the foreseeable future.

Section 318 of fiscal year 2004 the National Defense Authorization Act (Pub. L. No. 108–136) amended the Endangered Species Act to address the relationship of Integrated Natural Resources Management Plans (INRMPs) to critical habitat by adding a new section 4(a)(3)(B). This provision prohibits the Service from designating as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an INRMP prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary of the Interior determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

Further, section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. An area may be excluded from critical habitat if it is determined that the benefits of exclusion outweigh the benefits of specifying a particular area as critical habitat, unless the failure to designate such area as critical habitat will result in the extinction of the species.

In our critical habitat designations, we use both the provisions outlined in sections 3(5)(A) and 4(b)(2) of the Act to evaluate those specific areas that we are consider proposing designating as critical habitat as well as for those areas that are formally proposed for designation as critical habitat. Lands we have found do not meet the definition of critical habitat under section 3(5)(A) or have excluded pursuant to section 4(b)(2) include, but are not limited to, those covered by the following types of plans if they provide assurances that the conservation measures they outline will be implemented and effective such as: (1) Legally operative HCPs that cover the species, (2) draft HCPs that cover the species and have undergone public review and comment (i.e., pending HCPs), (3) Tribal conservation plans that cover the species, (4) State conservation plans that cover the species, and (5) National Wildlife Refuge System Comprehensive Conservation Plans.

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 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 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 if the benefits of exclusion outweigh the benefits of inclusion as discussed in section 4(b)(2) of the Act.

Before addressing the specifics of the benefits of the inclusion and the benefits of exclusion of particular areas of the proposed designation, we address some general points regarding the uncertainty of describing those benefits.

The key to the benefits of inclusion, and a significant factor in the benefits of exclusion, is the application of the prohibition of destruction or adverse modification of critical habitat as a result of a federally-related action. The attendant requirement for action agencies to consult with the Service in order to avoid adverse modification of critical habitat can result in the modification of the federal action. Any benefit to the species (or other benefit) caused by such a project modification to avoid adverse modification of critical habitat in a particular area is a benefit of designating that area as critical habitat. Conversely, those project modifications can have costs, negative consequences, or result in a loss of other benefits to the species or society. Maintenance of the benefits that might otherwise be forgone and avoidance of costs can be a primary benefit of excluding an area from critical habitat.

There is necessarily some uncertainty involved in considering the benefits accruing from either inclusion or exclusion of areas in the designation, as required by section 4(b)(2), due to the fact that the Service must anticipate the future federal actions and the results of future consultations all of which are necessarily speculative. Further uncertainty was created when the Ninth Circuit in *Gifford Pinchot Task Force* v. *USFWS,* 378 F. 3d 1059 (Ninth Cir. 2004) invalidated the Service's regulatory definition of ''destruction or adverse modification'' at 50 CFR 402.02 As a result, the consequences of designation are more difficult than ever to predict as Service cannot rely on decades of factual information based on prior experience.

While the Service has not yet promulgated a new regulatory definition, the Director has issued guidance to help ensure that section 7 consultations undertaken in the interim are consistent with *Gifford Pinchot.*

Regarding the relationship between the benefits identified and actions that may take place in the absence of critical habitat the Service as a general matter engages in a broad consideration of the impacts of the designation. However, when ultimately determining what areas, if any, to exclude from a final designation, the Service only weighs those impacts that will actually be affected by the decision of whether or not to exclude the area.

Section 4(b)(2) requires the Secretary to designate critical habitat ''after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.'' The statute continues by authorizing the Secretary to ''exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat,'' unless the exclusion will result in extinction of the species.

Admittedly, due to the uncertainties discussed above, as well as the additional uncertainty in assigning potential impacts among a variety of causes, it is more difficult to identify those impacts attributable solely to the designation of critical habitat than to identify impacts from section 7 generally, or, even more broadly, conservation efforts for the species. Our analysis relies on reasonable assumptions about the relationship of the incremental impacts of the designation as well as any broader effects we have identified. In many cases, lacking a significant factual basis for the impacts due to the short time the newer *Gifford Pinchot* standard has been in effect, we rely on qualitative descriptions of those incremental impacts.

Relationship of Critical Habitat to Military Lands—Application of Section 4(a)(3)

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete, by November 17, 2001, an Integrated Natural Resource Management Plan (INRMP). An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on military lands. Each INRMP includes an assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species; a statement of goals and priorities; a detailed description of management actions to be implemented to provide for the ecological needs of listed species; and a monitoring and adaptive management plan. We consult with the military on the development and implementation of INRMPs for installations with listed species. We are prohibited from designating as critical habitat any lands or other geographical areas owned or controlled by the DOD, or designated for its use, that are subject to an INRMP prepared under section 101 of the Sikes Act, if the Secretary of the Interior determines, in writing, that such plan provides a benefit to the species for which critical habitat is proposed for designation. In order to provide a benefit to the species, the INRMP must meet the following three criteria: (1) A current INRMP must be complete and provide a benefit to the species; (2) the plan must provide assurances that the conservation management strategies will be implemented; and (3) the plan must provide assurances that the conservation management strategies will be effective, by providing for periodic monitoring and revisions (adaptive management) as necessary. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found there. Each INRMP includes an assessment of the ecological needs on the military installation, including conservation provisions for listed species; a statement of goals and priorities; a detailed description of management actions to be implemented to provide for these ecological needs; and a monitoring and adaptive management plan.

We have exempted lands owned by Naval Weapons Station-Concord, Camp Parks, and Fort Hunter Liggett from the final critical habitat designation pursuant to section 4(a)(3) of the Act based on legally operative INRMPs that provide a benefit to the California tiger salamander. This includes portions of Central Valley Region Units 14 and 18 and portions of Central Coast Units 5a and 5b. Detailed discussions of the exemptions of military lands are discussed by installation below.

Naval Weapons Station—Concord and Camp Parks

The Department of the Navy, Naval Weapons Station, Seal Beach Detachment, Concord (Detachment Concord) (Contra Costa County), and the Parks Reserve Force Training Area (PRFTA) (Alameda and Contra Costa Counties) (referred to as the Concord Naval Weapons Station and Camp Parks respectively in the proposed rule) have approved INRMPs in place that provide a benefit for the California tiger salamander. These two military installations overlap portions of Central Valley Region units 14 and 18.

The Naval Weapons Station-Concord completed its INRMP in 1997, and it was approved by the Service in July 2003. Conservation measures included in the INRMP for the California tiger salamander at Detachment Concord include: (1) Restricting military training and construction in aquatic habitats known to support the salamander; (2) providing information and education programs to base personnel and the public regarding sensitive species and their habitats; (3) applying pesticides for burrowing rodent control in areas where salamanders may occur in accordance with those measures outlined in the final listing rule for this species; and (4) providing funding and support for California tiger salamander population census and habitat evaluation surveys. In addition, the entire area proposed as critical habitat is being leased for grazing in accordance with Natural Resource Conservation Service guidelines. The purpose of the grazing program is to assist in controlling noxious weeds, and the proceeds received from the program assist in funding natural resource management programs at Detachment Concord. The Secretary has determined that this INRMP provided a benefit to the California tiger salamander, and therefore we are exempting these lands from this critical habitat designation pursuant to section 4(a)(3) of the Act.

Camp Parks completed its INRMP, and it was approved by the Service through a section 7 consultation in July

2003. The INRMP provides conservation measures for the California tiger salamander and provides management direction on conserving listed and imperiled species and their habitats on the base. In addition, Camp Parks actively consults with us on all actions that may affect California tiger salamander on the base and has implemented conservation measures as recommended. Camp Parks has worked with us and developed an Endangered Species Management Plan (ESMP) as an appendix to its INRMP. The ESMP was drafted in part for the California tiger salamander and includes nonnative predator control and other conservation measures that benefit the salamander. Camp Parks has already implemented several portions of the ESMP and had done so prior to the final approval of the INRMP. Therefore, we have determined that the INRMP, as implemented, provides a conservation benefit to the California tiger salamander. As a result, the lands essential to the conservation of the California tiger salamander on Camp Parks are exempt from this designation of critical habitat pursuant to section 4(a)(3) of the Act.

Fort Hunter-Liggett

The Department of the Army, U.S. Army Reserve Command, Fort Hunter-Liggett (Monterey County) has a completed INRMP in place that provides a benefit to the California tiger salamander. We completed formal and informal consultations on the effects of the INRMP on listed species in March 2005. Central Coast Units 5a and 5b occur almost entirely on land managed by Fort Hunter-Liggett. Fort Hunter-Liggett is an unusual case, in that the best available information (Doty in litt. 2004) indicates that all tiger salamanders there are hybrids between California tiger salamanders and eastern tiger salamanders (*A. tigrinum*). However, the INRMP includes commitments by the Army to implement appropriate management and coordinate with the Service and researchers regarding research on and management of hybrid tiger salamanders. The Army is also planning to prepare an Endangered Species Management Plan that will address both the California tiger salamander and the vernal pool fairy shrimp. This plan should include provisions to protect vernal pool habitat and to cooperatively plan and fund research on hybrid tiger salamander management at Fort Hunter-Liggett. Because such research could be helpful in developing techniques to reduce hybridization as a threat to pure native California tiger salamanders, we believe that actions at Fort Hunter-Liggett will provide a conservation benefit for the California tiger salamander, even though it is unlikely that pure populations remain there. Therefore, the lands essential to the conservation of the California tiger salamander on Fort Hunter-Liggett are exempt from this designation of critical habitat pursuant to section 4(a)(3) of the Act.

Relationship of Critical Habitat to U.S. Fish and Wildlife Refuge Land—Exclusions Under Section 4(b)(2) of the Act

San Francisco Bay National Wildlife Refuge Complex

Portions of the Warm Springs Unit of the Don Edwards San Francisco National Wildlife Refuge were included in the proposed designation of critical habitat (East Bay Region Unit 4, Alameda County, 275 ac). A Draft Habitat Management Plan (HMP) has been developed by the refuge staff for the California tiger salamander and its habitat on the refuge. The Draft HMP would integrate seasonal cattle grazing, prescribed burning, vegetation mowing, and herbicide treatment enhancement measures to assist in the conservation of several listed species, including the California tiger salamander. Vegetation management through seasonal livestock grazing and properly timed prescribed burning is anticipated to promote the establishment of native plants and lengthen the vernal pool inundation period, thereby enhancing breeding habitat for the California tiger salamander. Livestock will be excluded from vernal pools that support high numbers of California tiger salamanders until monitoring demonstrates that grazing is beneficial to these species. Mowing and herbicide spraying is expected to replace isolated stands of unpalatable, nonnative vegetation with shorter plant species, which would benefit dispersing or migrating California tiger salamander.

An intra-Service section 7 consultation was conducted on the Draft HMP and a concurrence memorandum was completed in June 2003 (Service 2003). The memorandum stated that the management activities would not likely adversely affect the California tiger salamander. The Draft HMP is expected to be finalized in 2005. The remainder of the unit has undergone section 7 consultation (Service 2004) and either has been developed or was part of the on-site avoidance for the project and has been protected through conservation easements and management measures which have been put in place to conserve the California tiger salamander on-site. These lands subsequently were deeded to the Refuge and will be managed under the HMP. All essential habitat for the California tiger salamander within the San Francisco Bay National Wildlife Refuge is excluded under section 4(b)(2) of the Act from critical habitat based on the conservation benefits provided to the California tiger salamander under the Refuge's draft management plan, and conservation easements and ongoing management that has been put in place on lands that have been deeded to the Refuge through the section 7 process.

San Luis National Wildlife Refuge Complex

Approximately 16,786 ac (6,793 ha) of land are proposed to be designated as critical habitat for the California tiger salamander within the San Luis National Wildlife Refuge Complex in western Merced County. Management goals and objectives of the Refuge include the following objectives that provide conservation benefit for several federally listed species that have been documented on the Refuge, including the California tiger salamander: (1) Managing and providing habitat for endangered or sensitive species; (2) maintaining and enhancing the overall biodiversity associated with the existing mix of vegetative communities; and, (3) providing an area for compatible management oriented research and education/interpretation and recreational programs which may include observation, photography, hunting. Building upon the concepts originally outlined in the San Joaquin Basin Action Plan, a detailed habitat restoration plan has been developed for the West Bear Creek Unit. Fish and Wildlife Service staff at San Luis NWR directed all aspects of the project planning, design, and implementation. Local contractors and Refuge field crews did the actual construction and wetlands development. Refuge staff and volunteers implemented the native grassland and woody riparian habitat restoration. In addition, the United States Bureau of Reclamation, the U.S. Fish and Wildlife Service, and the California Department of Fish and Game, under a cooperative agreement called the San Joaquin Basin Action Plan, are in the process of jointly developing a habitat acquisition and wetland enhancement project in approximately 23,500 acres of lands within the Northern San Joaquin River Basin. All essential habitat for the Central population of California tiger salamander within the San Luis National Wildlife Refuge Complex is excluded under section 4(b)(2) of the

Act from critical habitat based on the current management goals of the refuge to protect and enhance vernal pools and wetlands for threatened and endangered species, including the California tiger salamander.

(1) Benefits of Inclusion

There is minimal benefit from designating critical habitat for the California tiger salamander on National Wildlife Refuge lands because these lands are already managed for the conservation of wildlife. The primary benefit to designation of critical habitat is the requirement that federal agencies consult with the Service to ensure that their actions are not likely to result in the destruction or adverse modification of critical habitat. If critical habitat were designated in these areas, any future consultations would have to be undertaken consistent with the decision in *Gifford Pinchot.* It is highly unlikely that any federal action would be proposed, much less take place, that would appreciably diminish the value of the habitat on the refuges for the conservation of the California tiger salamander. As discussed in detail above, a primary purpose of these refuges is to conserve fish, wildlife, and plants and their habitat, such as the California tiger salamander. As a result, we do not anticipate any action on either refuge would destroy or adversely modify the areas proposed as critical habitat. Therefore, including those areas in the final designation will not lead to any changes to actions on the refuges to avoid destroying or adversely modifying that habitat.

Moreover, both refuges are developing comprehensive resource management plans that will provide for protection and management of all trust resources, including federally listed species and sensitive natural habitats. These plans, and many of the management actions undertaken to implement them, have already undergone or will have to undergo consultation under section 7 of the Act and be evaluated for their consistency with the conservation needs of listed species. Another possible benefit of including these lands as critical habitat would be to educate the public regarding the conservation value of these vernal pool areas and the Central population of California tiger salamander. However, giving special management priority and emphasis to the conservation of listed species, and public education and interpretation, are priorities already established for the National Wildlife Refuge System by the National Wildlife Refuge Administration Act of 1966, as amended, and the National Wildlife Refuge System Improvement Act of 1997. We believe that critical habitat designation provides little gain in the way of increased recognition for special habitat values on lands that are expressly managed to protect and enhance those values. Therefore, we conclude that the California tiger salamander currently is realizing conservation benefits from existing management on National Wildlife Refuges, and that designation of critical habitat will not have any appreciable effect to either cause the modification of a Federal action to avoid adverse modification, or on the development or implementation of public education programs on the two National Wildlife Refuge Complexes.

(2) Benefits of Exclusion

While the consultation requirement associated with critical habitat on National Wildlife Refuge land adds little benefit, it would require the use of resources to ensure regulatory compliance that could otherwise be used for on-the-ground management of targeted listed or sensitive species. Therefore, the benefits of exclusion include the reduction of administrative costs of section 7 compliance by eliminating the need for reinitiating the section 7 consultation process to address newly-designated critical habitat on areas which have undergone consultation in the past, and eliminating the need for a separate analysis of the effects of an action on critical habitat in future consultations.

(3) The Benefits of Exclusion Outweigh the Benefits of Inclusion

The lands essential for the conservation of the California tiger salamander on the San Francisco Bay National Wildlife Refuge Complex and the San Luis National Wildlife Refuge complex already are publicly owned and managed to conserve fish, wildlife, and plants and their habitats, including the California tiger salamander. In addition, environmental education and interpretation are among the priority public uses the refuge system. As a result, we conclude that the benefits of excluding National Wildlife Refuge lands from the final critical habitat designation outweigh the benefits of including them. Exclusion of these lands will not increase the likelihood that management activities would be proposed which would appreciably diminish the value of the habitat for conservation of the species. Designation of critical habitat on the San Francisco and San Luis National Wildlife Refuge Complexes provides redundant, but no additional increment of conservation value for the California tiger salamander in terms of management emphasis or public recognition or education than currently exists. Further, such exclusion will not result in the extinction of the California tiger salamander. In accordance with section 4(b)(2) of the Act, we have excluded lands within the San Francisco Bay and San Luis National Wildlife Refuge Complexes from final critical habitat. The total amount of refuge land excluded from the final designation is approximately 17,601 ac (7,123 ha).

Relationship of Critical Habitat to State Managed Ecological Reserve Land—Exclusions Under Section 4(b)(2) of the Act

The State of California establishes Ecological Reserves ''to protect threatened or endangered native plants, wildlife, or aquatic organisms or specialized habitat types, both terrestrial and nonmarine aquatic, or large heterogeneous natural gene pools'' (Fish and Game Code section 580). They are to ''be preserved in a natural condition, or which are to be provided some level of protection as determined by the commission, for the benefit of the general public to observe native flora and fauna and for scientific study or research'' (Fish and Game Code section 584).

Take of species except as authorized by State Fish and Game Code is prohibited on both State Ecological Reserves (section 583). While public uses are permitted on most ecological reserves, such uses are only allowed at times and in areas where listed and sensitive species are not adversely affected (CDFG in litt. 2003). The management objectives for these State lands include: ''to specifically manage for targeted listed and sensitive species to provide protection that is equivalent to that provided by designation of critical habitat; to provide a net benefit to the species through protection and management of the land; to ensure adequate information, resources, and funds are available to properly manage the habitat; and to establish conservation objectives, adaptive management, monitoring and reporting processes to assure an effective management program * * *'' (CDFG in litt. 2003).

We proposed as critical habitat, but have now considered for exclusion from the final designation, as described below, the California Department of Fish and Game (CDFG) owned lands within the Calhoun Cut and Stone Corral Ecological Reserves (Portion of Unit 2 Central Valley Region, and Unit 4 Southern San Joaquin Region).

(1) Benefits of Inclusion

There is minimal benefit from designating critical habitat for the Central population of the California tiger salamander within the ecological reserves because these lands are already managed for the conservation of wildlife. The primary benefit to designation of critical habitat is the requirement that federal agencies consult with the Service to ensure that their actions are not likely to result in the destruction or adverse modification of critical habitat. If critical habitat were designated in these areas, any future consultations would have to be undertaken consistent with the decision in *Gifford Pinchot*. It is highly unlikely that any federal action would be proposed, much less take place, that would appreciably diminish the value of the habitat on the State ecological reserves for the conservation of the California tiger salamander. As discussed in detail above, a primary purpose of these reserves is to ''specifically manage for targeted listed and sensitive species to provide protection that is equivalent to that provided by designation of critical habitat; to provide a net benefit to the species through protection and management of the land; to ensure adequate information, resources, and funds are available to properly manage the habitat; and to establish conservation objectives, adaptive management, monitoring and reporting processes to assure an effective management program * * *'' (CDFG in litt. 2003). As a result, we do not anticipate any action on either State-managed ecological reserves which would destroy or adversely modify the areas proposed as critical habitat. Therefore, including those areas in the final designation will not lead to any changes to actions on the ecological reserves to avoid destroying or adversely modifying that habitat.

One possible benefit of including these lands as critical habitat would be to educate the public regarding the conservation value of these vernal pool areas and the Central population of California tiger salamander. However, critical habitat designation provides little gain in the way of increased recognition for special habitat values on lands that are expressly managed to protect and enhance those values. Additionally, the designation of critical habitat will not have any appreciable effect on the development or implementation of public education programs on these areas.

The designation of critical habitat would require consultation with us for any action undertaken, authorized, or funded by a Federal agency that may affect the species or its designated critical habitat. However, the management objectives for State ecological reserves already include specifically managing for targeted listed and sensitive species (CDFG in litt. 2003) such as the California tiger salamander; therefore, the benefit from additional consultation is likely also to be minimal.

(2) Benefits of Exclusion

While the consultation requirement associated with critical habitat on State-managed ecological reserves adds little benefit, it would require the use of resources to ensure regulatory compliance that could otherwise be used for on-the-ground management of targeted listed or sensitive species. Therefore, the benefits of exclusion include the reduction of administrative costs of section 7 compliance by eliminating the need for reinitiating the section 7 consultation process to address newly-designated critical habitat on areas which have undergone consultation in the past, and eliminating the need for a separate analysis of the effects of an action on critical habitat in future consultations.

(3) The Benefits of Exclusion Outweigh the Benefits of Inclusion

The lands essential for the conservation of the Califonria tiger salamander on the Calhoun Cut and Stone Corral Ecological Reserves already are publicly owned and managed for targeted listed and sensitive species, including the California tiger salamander. In addition, the State has informed us that funds are available to properly manage the habitat; and to establish conservation objectives, adaptive management, monitoring and reporting processes to assure an effective management program as described above. The designation of critical habitat will not have any appreciable effect on the development or implementation of public education programs because these lands already are publicly owned and critical habitat designation provides little gain in the way of increased recognition for special habitat values on lands that are expressly managed to protect and enhance those values.

Exclusion of these lands will not increase the likelihood that management activities would be proposed which would appreciably diminish the value of the habitat for conservation of the Central population of the California tiger salamander. Thus, designation of critical habitat on the Calhoun Cut and Stone Corral Ecological Reserves provides redundant, but no additional increment of conservation value for the California tiger salamander in terms of management emphasis or public recognition than currently exists. We therefore conclude that the benefits of excluding the Calhoun Cut and Stone Corral Ecological Reserves and from the final critical habitat designation outweigh the benefits of including them. Further, such exclusion will not result in the extinction of the California tiger salamander. In accordance with section 4(b)(2) of the Act, we have excluded California Department of Fish and Game owned lands within the Calhoun Cut and Stone Corral Ecological Reserves in portions of Unit 2 (Central Valley Region) and Unit 4 (Southern San Joaquin Region). The total amount of State-owned lands excluded within ecological reserves is approximately 1,289 ac (522 ha).

Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act requires us to consider other relevant impacts, in addition to economic impacts, when designating critical habitat. Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed wildlife species incidental to otherwise lawful activities. Development of an HCP is a prerequisite for the issuance of an incidental take permit pursuant to section 10(a)(1)(B) of the Act. An incidental take permit application must be supported by an HCP that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the permitted incidental take. HCPs vary in size and may provide for incidental take coverage and conservation management for one or many federally-listed species. Additionally, more than one applicant may participate in the development and implementation of an HCP. Large regional HCPs expand upon the basic requirements set forth in section 10(a)(1)(B) of the Act because they reflect a voluntary, cooperative approach to large-scale habitat and species conservation planning. Many of the large regional HCPs in southern California have been, or are being, developed to provide for the conservation of numerous federally-listed species and unlisted sensitive species and the habitat that provides for their biological needs. These HCPs are designed to proactively implement conservation actions to address future projects that are anticipated to occur

within the planning area of the HCP. However, given the broad scope of these regional HCPs, not all projects envisioned to potentially occur may actually take place. The State of California also has a NCCP process that is very similar to the federal HCP process and is often completed in conjunction with the HCP process. We recognize that many of the projects with HCPs also have State-issued NCCPs. In the case of approved regional HCPs and accompanying Implementing Agreements (IAs) (*e.g.,* those sponsored by cities, counties, or other local jurisdictions) that provide for incidental take coverage, a primary goal of these regional plans is to provide for the protection and management of habitat essential for species conservation, while directing development to other areas. We considered, but did not designate as critical habitat, on lands within the Draft East Contra Costa County HCP under section 4(b)(2) of the Act. This draft HCP includes Central Valley Region Units 14, 15, 16, and a portion of Unit 17. We believe the benefits of excluding lands within this draft HCP from the final critical habitat designation will outweigh the benefits of including them. The following represents our rationale for excluding these areas.

Draft East Contra Costa County Habitat Conservation Plan (ECCHCP)

The draft ECCHCP has been drafted and we expect it to be available for public review and comment in the fall of 2005. We expect a finalized plan before the end of 2006. Participants in this HCP include the County of Contra Costa; the cities of Brentwood, Clayton, Oakley, and Pittsburg, California; the Contra Costa Water District; and the East Bay Regional Park District. The draft ECCHCP encompasses the eastern portion of Contra Costa County from approximately west of Concord to Sand Mound Slough and Clifton Court Forebay on the east. The draft ECCHCP is also a subregional plan under the State's Natural Community Conservation Planning (NCCP) process and was developed in cooperation with the California Department of Fish and Game. The draft ECCHCP identifies the California tiger salamander as a covered species and has identified areas where growth and development are expected to occur, as well as several conservation measures, including (1) preserving between 24,100–28,800 ac and restoring between 116–118 ac of California tiger salamander habitat; (2) preserving major habitat connections linking existing public lands; (3) incorporating a range of habitat and population management and enhancement measures including monitoring; (4) fully mitigating the impacts to covered species; (5) maintaining ecosystem processes; and, (6) contributing to the recovery of covered species. When the conservation measures are implemented they will benefit California tiger salamander conservation by preserving and restoring existing wetland and upland habitat and creating new wetland habitat for the species. We expect that the draft ECCHCP will provide substantial protection for all three of the primary constituent elements for the Central population of the California tiger salamander, and that protected lands will receive special management they require through funding mechanisms that will be implemented under the ECCHCP.

(1) Benefits of Inclusion

The primary benefit to designation of critical habitat is the requirement that federal agencies consult with the Service to ensure that their actions are not likely to result in the destruction or adverse modification of critical habitat. If critical habitat were designated in these areas, primary constituent elements in these areas would be protected from destruction or adverse modification by federal actions using a conservation standard based on the Ninth Circuit's decision in *Gifford Pinchot.* This requirement would be in addition to the requirement that proposed Federal actions would not be likely to jeopardize the species' continued existence. However, inasmuch as these areas currently are occupied by the species, consultation for activities which might adversely impact the species, including possibly significant habitat modification (see definition of ''harm'' at 50 CFR 17.3) would be required, even without the critical habitat designation. The requirement to conduct such consultation would occur regardless of whether the authorization for incidental take occurs under either section 7 or section 10 of the Act.

As discussed above, we expect the ECCHCP to provide substantial protection of the PCEs and special management of essential habitat for the Central population of the California tiger salamander on ECCHCP conservation lands. We expect the ECCHCP to provide a greater level of management for the Central population of the California tiger salamander on private lands than would designation of critical habitat on private lands. Moreover, inclusion of these non-Federal lands as critical habitat would not necessitate additional management and conservation activities that would exceed the approved ECCHCP and its implementing agreement. As a result, we do not anticipate any action on these lands would destroy or adversely modify the areas proposed as critical habitat. Therefore, we do not expect that including those areas in the final designation will lead to any changes to actions on the conservation lands to avoid destroying or adversely modifying that habitat.

A benefit of including an area as critical habitat designation is the education of landowners and the public regarding the potential conservation value of these areas. The inclusion of an area as critical habitat may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation values for certain species. However, we believe that this conservation benefit has largely been achieved for the California tiger salamander through the hearings and workshops that have been held in the East Bay area associated with the listing of the species and subsequent proposal to designate critical habitat.

(2) Benefits of Exclusion

The benefits of excluding lands within HCPs from critical habitat designation include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed by a critical habitat designation. Many HCPs, particularly large regional HCPs such as the ECCHCP, take many years to develop and, upon completion, become regional conservation plans that are consistent with the recovery objectives for listed species that are covered within the plan area. In fact, designating critical habitat in areas covered by a pending HCP could result in the loss of species' benefits if participants abandon the voluntary HCP process, in part because of the strength of the perceived additional regulatory compliance that such designation would entail. The time and cost of regulatory compliance for a critical habitat designation do not have to be quantified for them to be perceived as additional Federal regulatory burden sufficient to discourage continued voluntary participation in plans targeting listed species conservation.

Furthermore, an HCP or NCCP/HCP application must itself be consulted upon. Such a consultation would review the effects of all activities covered by the HCP which might adversely impact the species, including possibly significant habitat modification (see definition of ''harm'' at 50 CFR 17.3), even without the critical habitat designation. In addition, Federal actions

not covered by the HCP in areas occupied by listed species would still require consultation under section 7 of the Act and would be reviewed for possibly significant habitat modification in accordance with the definition of harm referenced above. This standard also would apply to all consultation conducted in the interim period prior to finalization of the ECCHCP, whether incidental take exemption is provided under section 7 or section 10 of the Act.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

We have reviewed and evaluated for the California tiger salamander. Based on this evaluation, we find that the benefits of exclusion of the lands essential to the conservation of the California tiger salamander in the planning area for the draft ECCHCP outweigh the benefits of including Central Valley Region, Units 14, 15, 16 and a portion of Unit 17 as critical habitat.

The exclusion of these lands from critical habitat will help preserve the partnerships that we have developed with the local jurisdiction and project proponent in the development of the ECCHCP. The educational benefits of critical habitat, including informing the public of areas that are essential for the long term conservation of the species, are still accomplished from material provided on our Web site and through public notice and comment procedures required to establish the ECCHCP. The public also has been informed through the public participation that occurs during the development of this regional HCP. For these reasons, we believe that designating critical habitat has little benefit in areas covered by the draft ECCHCP. We do not believe that this exclusion would result in the extinction of the species because the draft ECCHCP seeks to: (1) Preserve approximately 34,800 ac and restore between 234–368 ac of habitat that contains the PCEs and is essential to the conservation of the Central population of the California tiger salamander; (2) preserve major habitat connections linking existing public lands; (3) incorporate a range of habitat and population management and enhancement measures; (4) fully mitigate the impacts of covered species, including the Central population of the California tiger salamander; (5) maintain ecosystem processes; and (6) contribute to the recovery of covered species.

Relationship of Critical Habitat to Other Land—Exclusions Under Section 4(b)(2) of the Act

East Bay Region Unit 10

A portion of East Bay Region Unit 10 warrants exclusion from the final critical habitat designation. Based on information received during the comment period, approximately 281 ac (114 ha) of the unit currently consists of commercially or agriculturally developed property and no longer contains one or more of the PCEs. Because the features considered essential for the California tiger salamander are no longer present as a result of the development, we have removed these lands from the critical habitat designation.

An additional 591 ac (239 ha) has been designated as open space areas as a result of the development. Conservation easements specifically including measures to protect, preserve, and enhance habitat for the California tiger salamander have been placed on the open space areas. These open spaces areas still contain those features considered essential for the California tiger salamander as identified in this final rule and will be managed to protect those features.

(1) Benefits of Inclusion

There is minimal benefit from designating critical habitat for the California tiger salamander within the open space areas because these lands are already managed for the conservation of the California tiger salamander. One possible benefit of including these lands as critical habitat would be to educate the public regarding the conservation values of these areas and the habitat they support. However, critical habitat designation provides little gain in the way of increased recognition for special habitat values on lands that are expressly managed to protect and enhance those values. Additionally, the designation of critical habitat will not have any appreciable effect on the development or implementation of public education programs in these areas.

Another possible benefit to including these lands is that the designation of critical habitat can serve to educate landowners and the public regarding the potential conservation values of an area. This may focus and contribute to conservation efforts of other parties by clearly delineating areas of high conservation value for certain species. However, this area already is publicly-owned by a non-Federal entity, and we believe that critical habitat designation provides little gain in the way of increased recognition for special habitat values on lands that are expressly managed to protect and enhance those values. Additionally, we believe that this education benefit has largely been achieved. The additional educational benefits that might arise from critical habitat designation are largely accomplished through the proposed rule and request for public comment that accompanied the development of this critical habitat regulation. We have accordingly determined that the benefits of designating critical habitat on this property covered by the described conservation measures above are small.

The designation of critical habitat would require consultation with us for any action undertaken, authorized, or funded by a Federal agency that may affect the species or its designated critical habitat. However, the open space area management plan already includes specific management actions targeting listed and sensitive species, including the California tiger salamander; therefore, the benefit from additional consultation is likely also to be minimal.

In summary, we conclude that the Central population of the California tiger salamander currently is realizing conservation benefits from existing management of these areas, and that designation of critical habitat will not have any appreciable effect to either cause the modification of a Federal action to avoid adverse modification, or on the development or implementation of public education programs.

(2) Benefits of Exclusion

While the consultation requirement associated with critical habitat on the open space areas would provide little benefit, it would require the use of resources to ensure regulatory compliance that could otherwise be used for on-the-ground management of the targeted listed or sensitive species, including the Central population of the California tiger salamander. The benefits of exclusion include the reduction of administrative costs by eliminating the need for a separate analysis of the effects of an action on critical habitat in future consultations, whether incidental take exemption is provided through section 7 or section 10. The open space areas are currently managed through a mitigation, monitoring, and reporting program (MMRP); a Wildlife Management Plan (WMP); and a conservation easement that is funded in perpetuity. The MMRP, WMP, and the conservation easement specifically identify measures designed to protect, preserve, and enhance habitat for the California tiger salamander. Such

measures include: (1) Create three new salamander breeding ponds; (2) enhance an existing breeding pond; (3) place signage around sensitive habitat; (4) implement a permanent bullfrog control program; (5) prohibit new introduction of fish to any waters on the property; (6) limit use of rodenticides and extent of rodent control; and (7) monitor for noxious chemicals in ground and surface water. Therefore, the benefits of exclusion include relieving additional regulatory burden that might be imposed by the critical habitat, which could divert resources from substantive resource protection to procedural regulatory efforts.

(3) The Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act and the Federal District Court decision concerning critical habitat (*Center for Biological Diversity* v. *Norton,* Civ. No. 01–409 TUC DCB D. Ariz. Jan. 13, 2003), we have determined that the benefits of excluding a portion of East Bay Region unit 10 as critical habitat outweigh the benefits of including it as critical habitat for the Central population of the California tiger salamander. This is because these lands are already managed to protect and enhance unique and important natural resource values specifically for the California tiger salamander. Exclusion of these lands will not increase the likelihood that management activities would be proposed which would appreciably diminish the value of the habitat for the conservation of the species. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition for special habitat values on public lands that are expressly managed to protect and enhance those values. We do not believe that this exclusion would result in the extinction of the species because the MMRP, WMP, and conservation easement seek to: (1) Preserve approximately 591 ac of habitat; (2) enhance and create breeding habitat; (3) incorporate a range of habitat and population management and enhancement measures beneficial to the salamander; (4) limit use of rodenticides and extent of rodent control; and (5) monitor for noxious chemicals in ground and surface water.

Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act

This section allows the Secretary to exclude areas from critical habitat for economic reasons if she determines that the benefits of such exclusion exceed the benefits of designating the area as critical habitat, unless the exclusion will result in the extinction of the species concerned. This is a discretionary authority Congress has provided to the Secretary with respect to critical habitat. Although economic and other impacts may not be considered when listing a species, Congress has expressly required their consideration when designating critical habitat.

In general, we have considered in making the following exclusions that all of the costs and other impacts predicted in the economic analysis may not be avoided by excluding the area, due to the fact that all of the areas in question are currently occupied by the Central population of CTS and there will be requirements for consultation under Section 7 of the Act, or for permits under section 10 (henceforth ''consultation''), for any take of this species, which should also serve to protect the species and its habitat, and other protections for the species exist elsewhere in the Act and under State and local laws and regulations. In conducting economic analyses, we are guided by the 10th Circuit Court of Appeal's ruling in the New Mexico Cattle Growers Association case (248 F.3d at 1285), which directed us to consider all impacts, ''regardless of whether those impacts are attributable co-extensively to other causes.'' As explained in the analysis, due to possible overlapping regulatory schemes and other reasons, there are also some elements of the analysis that may overstate some costs.

Conversely, the Ninth Circuit has recently ruled (''Gifford Pinchot'', 378 F.3d at 1071) that the Service's regulations defining ''adverse modification'' of critical habitat are invalid because they define adverse modification as affecting both survival and recovery of a species. The Court directed us to consider that determinations of adverse modification should be focused on impacts to recovery. While we have not yet proposed a new definition for public review and comment, compliance with the Court's direction may result in additional costs associated with the designation of critical habitat (depending upon the outcome of the rulemaking). In light of the uncertainty concerning the regulatory definition of adverse modification, our current methodological approach to conducting economic analyses of our critical habitat designations is to consider all conservation-related costs. This approach would include costs related to sections 4, 7, 9, and 10 of the Act, and should encompass costs that would be considered and evaluated in light of the *Gifford Pinchot* ruling.

In addition, we have received several credible comments on the economic analysis contending that it underestimates, perhaps significantly, the costs associated with this critical habitat designation. Both of these factors should be considered in the test and balancing against the possibility that some of the costs shown in the economic analysis might be attributable to other factors, or are overly high, and so would not necessarily be avoided by excluding the area for which the costs are predicted from this critical habitat designation.

We recognize that we have excluded a significant portion of the proposed critical habitat. Congress expressly contemplated that exclusions under this section might result in such situations when it enacted the exclusion authority. House Report 95–1625, stated on page 17: ''Factors of recognized or potential importance to human activities in an area will be considered by the Secretary in deciding whether or not all or part of that area should be included in the critical habitat * * * In some situations, no critical habitat would be specified. In such situations, the Act would still be in force prevent any taking or other prohibited act * * * '' (emphasis supplied). We accordingly believe that these exclusions, and the basis upon which they are made, are fully within the parameters for the use of section 4(b)(2) set out by Congress. In reaching our decision about which areas should be excluded from the final critical habitat designation for economic reasons, we considered the following factors to be important: (1) The most costly census tracts, approximately the top 80 percent; (2) at or near the 80 percent threshold, a substantial break in costs from one census tract to the next that indicates disproportionate impacts; and (3) costs of public works projects such as transportation or other infrastructure.

The draft economic analysis published in the **Federal Register** on July 18, 2005 (70 FR 41183) analyzed the economic effects of the proposed critical habitat designation for the Central population of California tiger salamander in 20 California counties. The economic impacts of critical habitat designation vary widely among counties, and even within counties. The counties most impacted by the critical habitat designation to the new housing industry and public projects include Alameda ($193 million), Contra Costa ($91 million), Monterey ($67 million),

Santa Clara ($33 million), San Benito ($23 million), and Fresno ($15 million). Further, economic impacts are unevenly distributed within counties. The analysis was conducted at the census tract level, resulting in a high degree of spatial precision.

Mitigation requirements increase the cost of development and avoidance requirements are assumed to reduce the construction of new housing. In the base scenario where critical habitat reduces the amount of new housing, designation of critical habitat for the Central population of the California tiger salamander is expected to impose losses of over $441 million relating to lost development opportunity over a 20-year period, between the present and 2025. A second scenario, in which increased costs and the reduction in developable land are accommodated through densification, or in other words, in the event that on-site avoidance can be accomplished through density increases alone, welfare losses from critical habitat for the Central population of the California tiger salamander would be approximately $370 million over the same 20-year period.

Alameda County is expected to experience the largest economic impacts from critical habitat—over $193 million in surplus lost in the rationed housing or base scenario. As shown in the map of impacts in Alameda County, these impacts are concentrated in census tracts northwest of Livermore and southeast of Pleasanton. Economic impacts generally decline in those census tracts which are progressively further of the developed city centers. The four most impacted counties are the same in both scenarios: Alameda, Contra Costa, Monterey, and Santa Clara. These counties appear to experience impacts that are significantly larger than is the case in other counties '' nearly twice as large as the next most impacted county. The ten most impacted counties are identical under the two scenarios.

A copy of the final economic analysis with supporting documents are included in our administrative record and may be obtained by contacting U.S. Fish and Wildlife Service, Branch of Endangered Species (see **ADDRESSES** section).

Application of Section 4(b)(2)—Economic Exclusion to 12 Census Tracts

We have considered, but are excluding from critical habitat for the Central population of the California tiger salamander essential habitat in the 12 census tracts and counties listed in Table 2.

TABLE 2.—EXCLUDED CENSUS TRACTS AND COSTS

Census tract	County	Welfare impact in draft EA ($)	Adjusted welfare impact in final EA ($)
06001450721	Alameda	$54,235,596	$68,357,184
06013355104	Contra Costa	37,728,800	43,721,380
06053010501	Monterey	42,654,944	42,654,944
06001450701	Alameda	44,538,812	37,760,320
06001451101	Alameda	15,160,546	32,343,348
06001450100	Alameda	8,283,346	30,483,876
06053014103	Monterey	22,393,324	22,393,324
06085512100	Santa Clara	14,745,986	22,264,860
06001441503	Alameda	2,085,401	19,553,670
06013355200	Contra Costa	21,156,608	17,426,460
06069000600	San Benito	14,625,198	14,625,198
06019005515	Fresno	13,393,774	13,393,774
Total			364,978,338

The notice of availability of the draft economic analysis (70 FR 41183, July 18, 2005) solicited public comment on the potential exclusion of high cost areas. As we finalized the economic analysis, we identified high costs associated with the proposed critical habitat designation to public projects in San Benito County. These public projects were the widening of State Routes 25 and 156. The final economic analysis indicates additional costs in census tracts in which these projects were located were approximately $4.9 million for the two projects. On the basis of the significance of these costs, we determined that these two routes be excluded from the designation. In addition, the economic analysis also identified a section of Highway 680 in Alameda County as having significant costs as a result of the designation of critical habitat. The critical habitat unit associated with the project area is one of those identified in Table 2 above for exclusion and no additional exclusion of this area is necessary.

(1) Benefits of Inclusion of the 12 Excluded Census Tracts

The areas excluded are currently occupied by the Central population of the California tiger salamander, as shown in Table 2. If these areas were designated as critical habitat, any actions with a Federal nexus which may adversely affect the critical habitat would require a consultation with us, as explained above in the section of this notice entitled ''Effects of Critical Habitat Designation''. Primary constituent elements in these areas would be protected from destruction or adverse modification by federal actions using a conservation standard based on the Ninth Circuit's decision in *Gifford Pinchot.* This requirement would be in addition to the requirement that proposed Federal actions avoid likely jeopardy to the species' continued existence. However, inasmuch as all these units are currently occupied by the species, consultation for activities which may adversely affect the species, including possibly significant habitat modification (see definition of ''harm'' at 50 CFR 17.3), would be required, even without the critical habitat designation. The requirement to conduct such consultation would occur regardless of whether the authorization for incidental take occurs under either section 7 or section 10 of the Act. For the occupied areas there is still a requirement for a jeopardy analysis to ensure Federal actions are note likely to jeopardize the continued existence of the species.

We determined, however, in the economic analysis that designation of critical habitat could result in approximately $364,978,338 in costs in

these 12 census tracts, the majority of which are directly related to residential development impacts. We believe that the potential decrease in residential housing development that could be caused by this designation of critical habitat for the Central population of the California tiger salamander would minimize impacts to and potentially provide some protection to the species, the vernal pool complexes and ponds where they reside, and the physical and biological features essential to the species' conservation (*i.e.*, the primary constituent elements). Thus, this decrease in residential housing development would directly translate into a potential benefit to the species that would result from this designation.

Another possible benefit of a critical habitat designation is education of landowners and the public regarding the potential conservation value of these areas. This may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation values for certain species. However, we believe that this education benefit has largely been achieved, or is being achieved in equal measure by other means. Although we have not yet begun the recovery planning process for the Central population of the California tiger salamander the designation of critical habitat would assist in the identification of potential core recovery areas for the species. The critical habitat designation and recovery plan would provide information geared to the general public, landowners, and agencies about areas that are important for the conservation of the species and what actions they can implement to further the conservation of the Central population of the California tiger salamander within their own jurisdiction and capabilities, and contains provisions for ongoing public outreach and education as part of the recovery process.

In summary, we believe that inclusion of the 12 census tracts as critical habitat would provide some additional Federal regulatory benefits for the species. However, that benefit is limited to some degree by the fact that the proposed critical habitat is occupied by the species, and therefore there must, in any case, be consultation with the Service over any Federal action which may affect the species in those 12 census tracts. The additional educational benefits which might arise from critical habitat designation are largely accomplished through the multiple opportunities for public notice and comments which accompanied the development of this regulation, publicity over the prior litigation, and public outreach associated with the development of the draft and, ultimately, the implementation of the final recovery plan for the Central population of the California tiger salamander.

(2) Benefits of Exclusion of the 12 Excluded Census Tracts

The economic analysis conducted for this proposal estimates that the costs associated with designating these 12 census tracts would be approximately $364,978,338. Costs would be associated with the Central population of the California tiger salamander in amounts shown in Table 2 above. By excluding these census tracts, some or all of these costs will be avoided. Two important public-sector projects, widening of State Routes 25 and 156, will avoid the costs associated with critical habitat designation.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion of the 12 Census Tracts

We believe that the benefits from excluding these lands from the designation of critical habitat—avoiding the potential economic and human costs, both in dollars and jobs, predicted in the economic analysis—exceed the educational and regulatory benefits which could result from including those lands in this designation of critical habitat.

We have evaluated and considered the potential economic costs on the residential development industry relative to the potential benefit for the Central population of the California tiger salamander and its primary constituent elements derived from the designation of critical habitat. We believe that the potential economic impact of up to approximately $365 million on the development industry significantly outweighs the potential conservation and protective benefits for the species and their primary constituent elements derived from the residential development not being constructed as a result of this designation.

We also believe that excluding these lands, and thus helping landowners avoid the additional costs that would result from the designation, will contribute to a more positive climate for Habitat Conservation Plans and other active conservation measures which provide greater conservation benefits than would result from designation of critical habitat—even in the post-*Gifford Pinchot* environment—which requires only that the there be no adverse modification resulting from actions with a Federal nexus. We therefore find that the benefits of excluding these areas from this designation of critical habitat outweigh the benefits of including them in the designation.

We believe that the required future recovery planning process would provide at least equivalent value to the public, State and local governments, scientific organizations, and Federal agencies in providing information about habitat that contains those features considered essential to the conservation of the Central population of the California tiger salamander, and in facilitating conservation efforts through heightened public awareness of the plight of the listed species. Draft recovery plans would contains explicit objectives for ongoing public education, outreach, and collaboration at local, state, and federal levels, and between the private and public sectors, in recovering the Central population of the California tiger salamander.

(4) Exclusion Will Not Result in Extinction of the Species

We believe that exclusion of these lands will not result in the extinction of the Central population of the California tiger salamander as these areas are considered occupied habitat. Actions which might adversely affect the species are expected to have a Federal nexus, and would thus undergo a section 7 consultation with the Service. The jeopardy standard of section 7, and routine implementation of habitat preservation through the section 7 process, as discussed in the economic analysis, provide assurance that the species will not go extinct. In addition, the species is protected from take under section 9 of the Act. The exclusion leaves these protections unchanged from those that would exist if the excluded areas were designated as critical habitat.

Critical habitat is being designated for the species in other areas that will be accorded the protection from adverse modification by Federal actions using the conservation standard based on the Ninth Circuit decision in *Gifford Pinchot*. Additionally, the species occurs on lands protected and managed either explicitly for the species, or indirectly through more general objectives to protect natural values, this provides protection from extinction while conservation measures are being implemented. For example, the Central population of California tiger salamander is protected on lands such as conservation banks and other natural areas protected by perpetual conservation easements and managed specifically for the species *e.g.*, Jepson Prairie. The species also occurs on lands

managed to protect and enhance wetland values under the Wetlands Reserve Program of the Natural Resource Conservation Service. The Central population of the California tiger salamander are protected on lands such as conservation banks protected by perpetual conservation easements and managed specifically for the species and its habitat, *e.g.*, , Fitzgerald Ranch Conservation Bank, Ohlone Conservation Bank, and Viera Sandy Mush Conservation Bank; National Wildlife Refuges, *e.g.*, San Luis NWR Complex, and San Francisco Bay NWR Complex; and also on a variety of natural areas managed to maintain and enhance natural values, *e.g.*, Grasslands Ecological Area.

We believe that exclusion of the 12 census tracts will not result in extinction of the Central population of the California tiger salamander as they are considered occupied habitat. Federal Actions which might adversely affect the species would thus undergo a consultation with the Service under the requirements of section 7 of the Act. The jeopardy standard of section 7, and routine implementation of habitat preservation as part of the section 7 process, as discussed in the draft economic analysis, provide insurance that the species will not go extinct. The exclusion leaves these protections unchanged from those that would exist if the excluded areas were designated as critical habitat.

Critical habitat is being designated for the Central population of the California tiger salamander in other areas that will be accorded the protection from adverse modification by federal actions using the conservation standard based on the Ninth Circuit decision in *Gifford Pinchot.* Additionally, the species occurs on lands protected and managed either explicitly for the species, or indirectly through more general objectives to protect natural values, this factor acting in concert with the other protections provided under the Act for these lands absent designation of critical habitat on them, and acting in concert with protections afforded each species by the remaining critical habitat designation for the species, lead us to find that exclusion of these 12 census tracts will not result in extinction of the Central population of the California tiger salamander.

Economic Analysis

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

Following the publication of the proposed critical habitat designation, we conducted an economic analysis to estimate the potential economic effect of the designation. The draft analysis was made available for public review on July 18, 2005 (70 FR 41183). We accepted comments on the draft analysis until August 3, 2005.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for the Central population of the CTS. This information is intended to assist the Secretary in making decisions about whether the benefits of excluding particular areas from the designation outweigh the benefits of including those areas in the designation. This economic analysis considers the economic efficiency effects that may result from the designation, including habitat protections that may be co-extensive with the listing of the species. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. This information can be used by the Secretary to assess whether the effects of the designation might unduly burden a particular group or economic sector.

This analysis focuses on the direct and indirect costs of the rule. However, economic impacts to land use activities can exist in the absence of critical habitat. These impacts may result from, for example, local zoning laws, State and natural resource laws, and enforceable management plans and best management practices applied by other State and Federal agencies. Economic impacts that result from these types of protections are not included in the analysis as they are considered to be part of the regulatory and policy baseline.

A copy of the draft economic analysis with supporting documents is included in our administrative record and may be obtained by contacting us (see **ADDRESSES** section) or by downloading from the Internet at *http://sacramento.fws.gov/.*

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule in that it may raise novel legal and policy issues, but will not have an annual effect on the economy of $100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule. As explained above, we prepared an economic analysis of this action. We used this analysis to meet the requirement of section 4(b)(2) of the Act to determine the economic consequences of designating the specific areas as critical habitat. We also used it to help determine whether to exclude any area from critical habitat, as provided for under section 4(b)(2), if we determine that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless we determine, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species.

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

Under the Regulatory Flexibility Act (RFA) (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a statement of factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA also amended the RFA to require a certification statement.

Small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses. Small businesses include manufacturing and mining concerns with fewer than

500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly 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). We apply the ''substantial number'' test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define ''substantial number'' or ''significant economic impact.'' Consequently, to assess whether a ''substantial number'' of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect CTS. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements for the approximately four small businesses, on average, that may be required to consult with us each year regarding their project's impact on the Central population of the CTS and its habitat. First, if we conclude, in a biological opinion, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer ''reasonable and prudent alternatives.'' Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or result in adverse modification of critical habitat. A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found jeopardy or adverse modification of critical habitat. An agency or applicant could alternatively choose to seek an exemption from the requirements of the Act or proceed without implementing the reasonable and prudent alternative. However, unless an exemption were obtained, the Federal agency or applicant would be at risk of violating section 7(a)(2) of the Act if it chose to proceed without implementing the reasonable and prudent alternative(s).

Second, if we find that a proposed action is not likely to jeopardize the continued existence of a listed animal or plant species, we may identify reasonable and prudent measures designed to minimize the amount or extent of take and require the Federal agency or applicant to implement such measures through non-discretionary terms and conditions. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or develop information that could contribute to the recovery of the species.

Based on our experience with consultations pursuant to section 7 of the Act for all listed species, virtually all projects–including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations in section 7 consultations can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. We can only describe the general kinds of actions that may be identified in future reasonable and prudent alternatives. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule and this critical habitat designation. Within the final critical habitat units, the types of Federal actions or authorized activities that we have identified as potential concerns are:

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

(2) Water flows, damming, diversion, and channelization implemented or licensed by Federal agencies;

(3) Timber harvest, grazing, mining, and recreation by the U.S. Forest Service and BLM;

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

(5) Hazard mitigation and post-disaster repairs funded by the Federal Emergency Management Agency; and

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

It is likely that a developer or other project proponent could modify a project or take measures to protect the Central population of the CTS. The kinds of actions that may be included if future reasonable and prudent alternatives become necessary include conservation set-asides, management of competing nonnative species, restoration of degraded habitat, and regular monitoring. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule and proposed critical habitat designation. These measures are not likely to result in a significant economic impact to project proponents.

In summary, we have considered whether this would result in a significant economic effect on a substantial number of small entities. We have determined, for the above reasons and based on currently available information, that it is not likely to affect a substantial number of small entities. Federal involvement, and thus section 7 consultations, would be limited to a subset of the area designated. The most likely Federal involvement could include Corps permits, permits we may issue under section 10(a)(1)(B) of the Act, Federal Highway Administration funding for road improvements, hydropower licenses issued by Federal Energy Regulatory Commission, and regulation of timber harvest, grazing, mining, and recreation by the U.S.

Forest Service and BLM. A regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 801 et seq.)

Under SBREFA, this rule is not a major rule. Our detailed assessment of the economic effects of this designation is described in the economic analysis. Based on the effects identified in the economic analysis, we believe that this rule will not have an annual effect on the economy of $100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Refer to the draft economic analysis for a discussion of the effects of this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 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 final rule to designate critical habitat for the Central population of the CTS is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

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

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make 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, 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, 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 because it will not produce a Federal mandate of $100 million or greater in any year; that is, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments. As such, Small Government Agency Plan is not required.

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 final critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by the Central population of 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 PCEs 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 are designating critical habitat in accordance with the provisions of the Act. This final rule uses standard property descriptions and identifies the PCEs within the designated areas to assist the public in understanding the habitat needs of the Central population of the CTS.

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

It is our position that, outside the Tenth Circuit, we do not need to prepare environmental analyses as defined by the NEPA in connection with designating critical habitat under the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This assertion was upheld in the courts of the Ninth Circuit (*Douglas County* v.

Babbitt, 48 F.3d 1495 (9th Cir. Ore. 1995), cert. denied 116 S. Ct. 698 (1996).

Government-to-Government Relationships 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 population of the CTS. Therefore, designation of critical habitat for the Central population of the CTS 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, Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

Author

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

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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

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

■ 2. In § 17.11(h), revise the entry for ''Salamander, California tiger, in Santa Barbara County Population'' in the List of Endangered and Threatened Wildlife 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.	*Ambystoma californiense*.	U.S.A. (CA)	U.S.A. (CA—California).	T	667E, 702, 744	17.95(d)	17.43(c)
*	*	*	*	*	*		*

■ 3. In § 17.95(d), amend the entry for the designation of critical habitat for California tiger salamander (*Ambystoma californiense*) in Santa Barbara County as follows:

■ a. Revise the entry's heading;

■ b. Immediately following the heading, add a new subheading;

■ c. Immediately following the map in paragraph (d)(10)(iii), add a new subheading; and

■ d. Add paragraphs (11) through (51); to read as set forth below:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(d) *Amphibians*

* * * * *

California Tiger Salamander (*Ambystoma californiense*)

California Tiger Salamander (*Ambystoma californiense*)in Santa Barbara County

* * * * *

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

(11) Critical habitat units are depicted for the Central population of the California tiger salamander in California on the maps below.

(12) The PCEs of critical habitat for the Central population of the California tiger salamander (*Ambystoma californiense*) are the habitat components that provide:

(i) Standing bodies of fresh water (including natural and manmade (*e.g.*, stock)) ponds, vernal pools, and other ephemeral or permanent water bodies which typically support inundation during winter rains and hold water for a minimum of 12 weeks in a year of average rainfall;

(ii) Upland habitats adjacent and accessible to and from breeding ponds that contain small mammal burrows or other underground habitat that CTS depend upon for food, shelter, and protection from the elements and predation; and

(iii) Accessible upland dispersal habitat between occupied locations that allow for movement between such sites.

(13) Critical habitat does not include manmade structures existing on the effective date of this rule and not containing one or more of the PCEs, such as buildings, aqueducts, airports, and roads, and the land on which such structures are located.

(14) Critical habitat units are described below. Data layers defining map units were created by screen digitizing habitat boundaries using ArcMap GIS.

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

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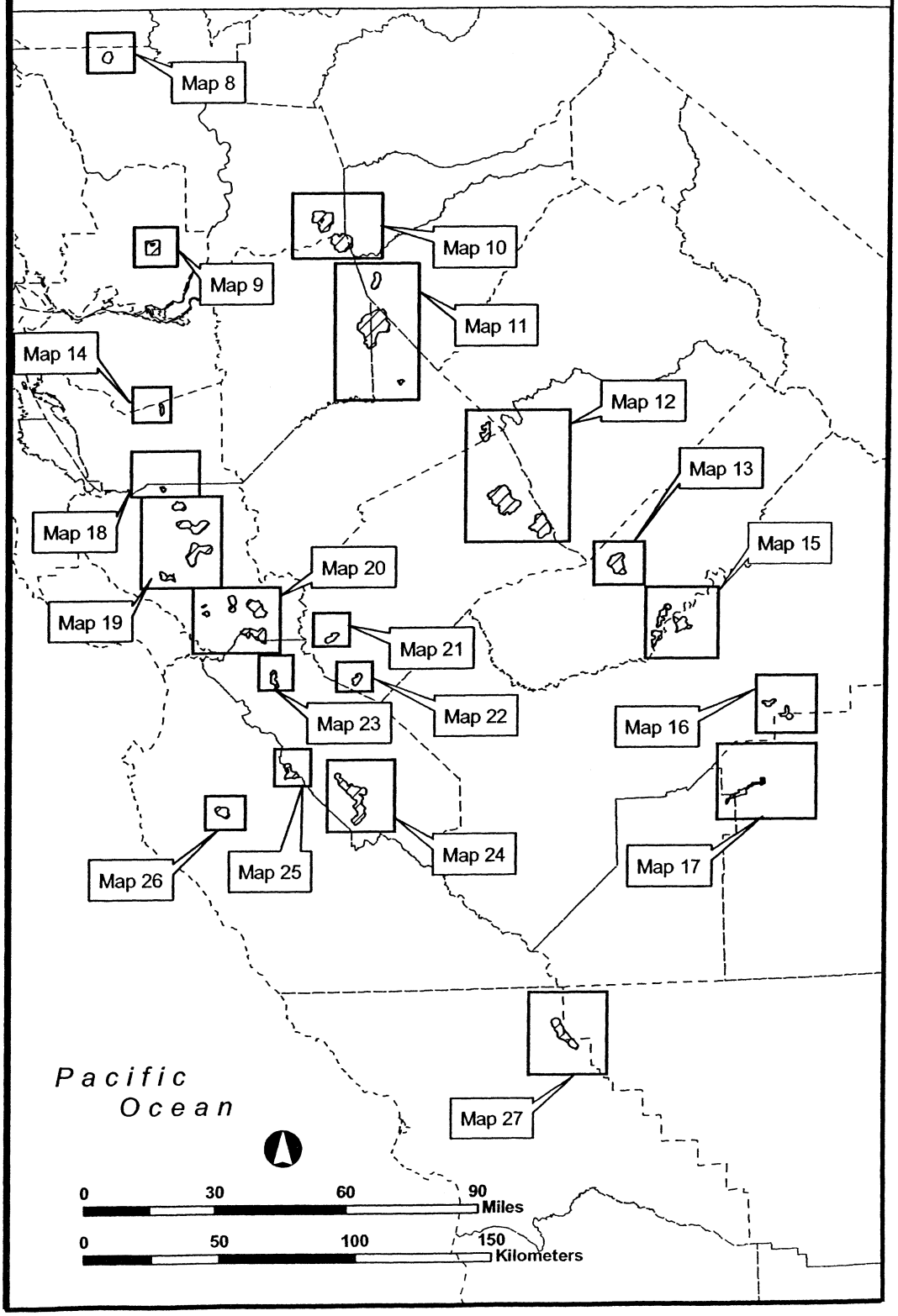
Map 7. Central Population of California Tiger Salamander Map Index of Final Critical Habitat Locations

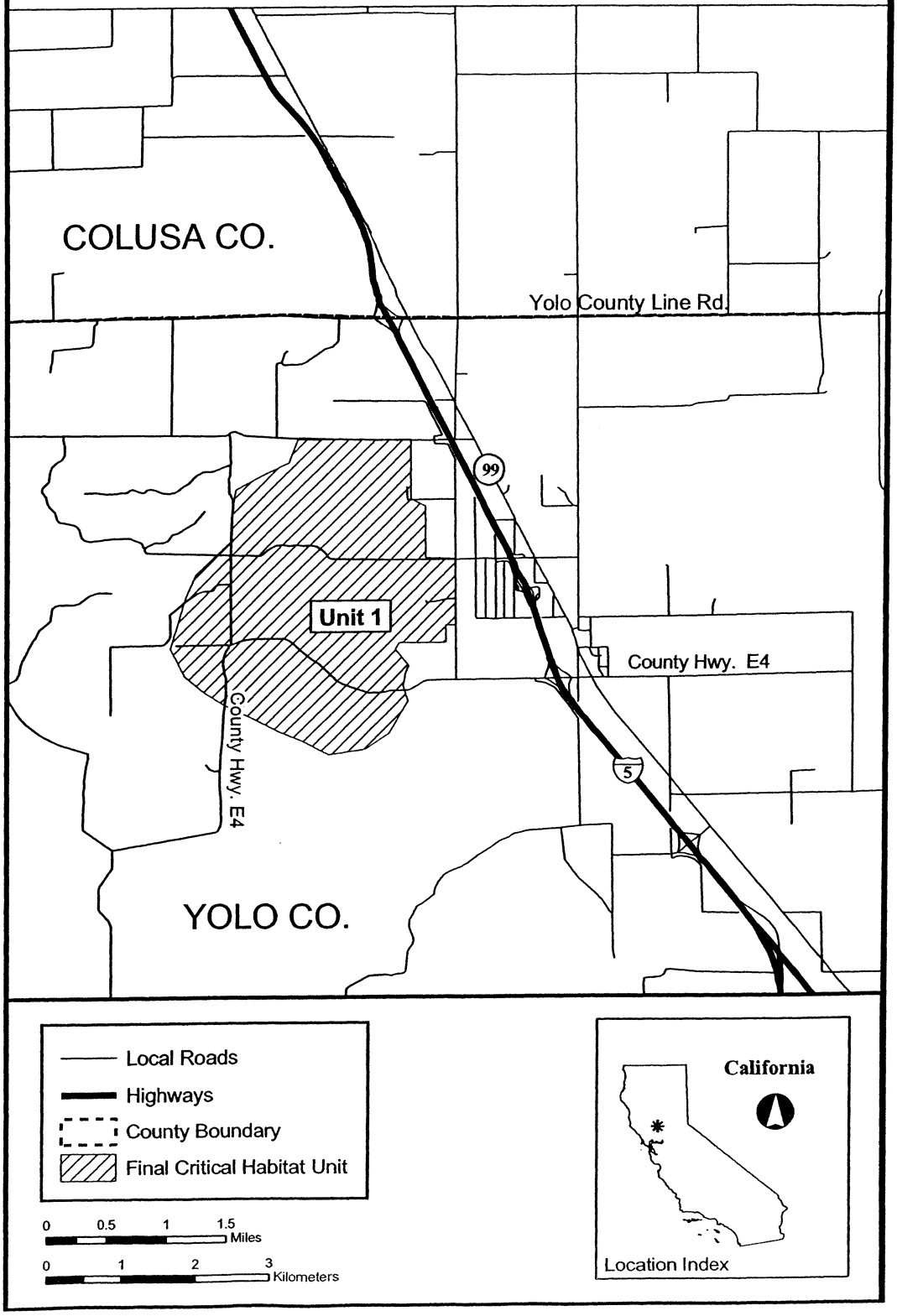


(16) Central Valley Region: Unit 1, Yolo County, California.

(i) From USGS 1:24,000 scale quadrangles Wildwood School, Dunnigan, Bird Valley, Zamora. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 586407, 4303194; 585908, 4303117; 585550, 4303309; 585255, 4303424; 584910, 4303603; 584500, 4303795; 584231, 4303962; 583975, 4304179; 583783, 4304551; 583988, 4305229; 584116, 4305537; 584321, 4305729; 584602, 4305997; 584615, 4306446; 584654, 4306689; 584922, 4306830; 585089, 4306906; 585370, 4307047; 585486, 4307355; 585914, 4307355; 586996, 4307355; 587000, 4306558; 587204, 4306457; 587208, 4305759; 587600, 4305747; 587609, 4305701; 587617, 4304857; 587488, 4304855; 587486, 4304740; 587486, 4304618; 586854, 4304617; 586795, 4304534; 586983, 4304309; 586935, 4304197; 586912, 4304035; 586970, 4303827; 586715, 4303400; returning to 586407, 4303194.

(ii) Note: Map 8 (Central Valley Region, Unit 1) follows:

Map 8. Central Population of California Tiger Salamander Central Valley Region, Unit 1

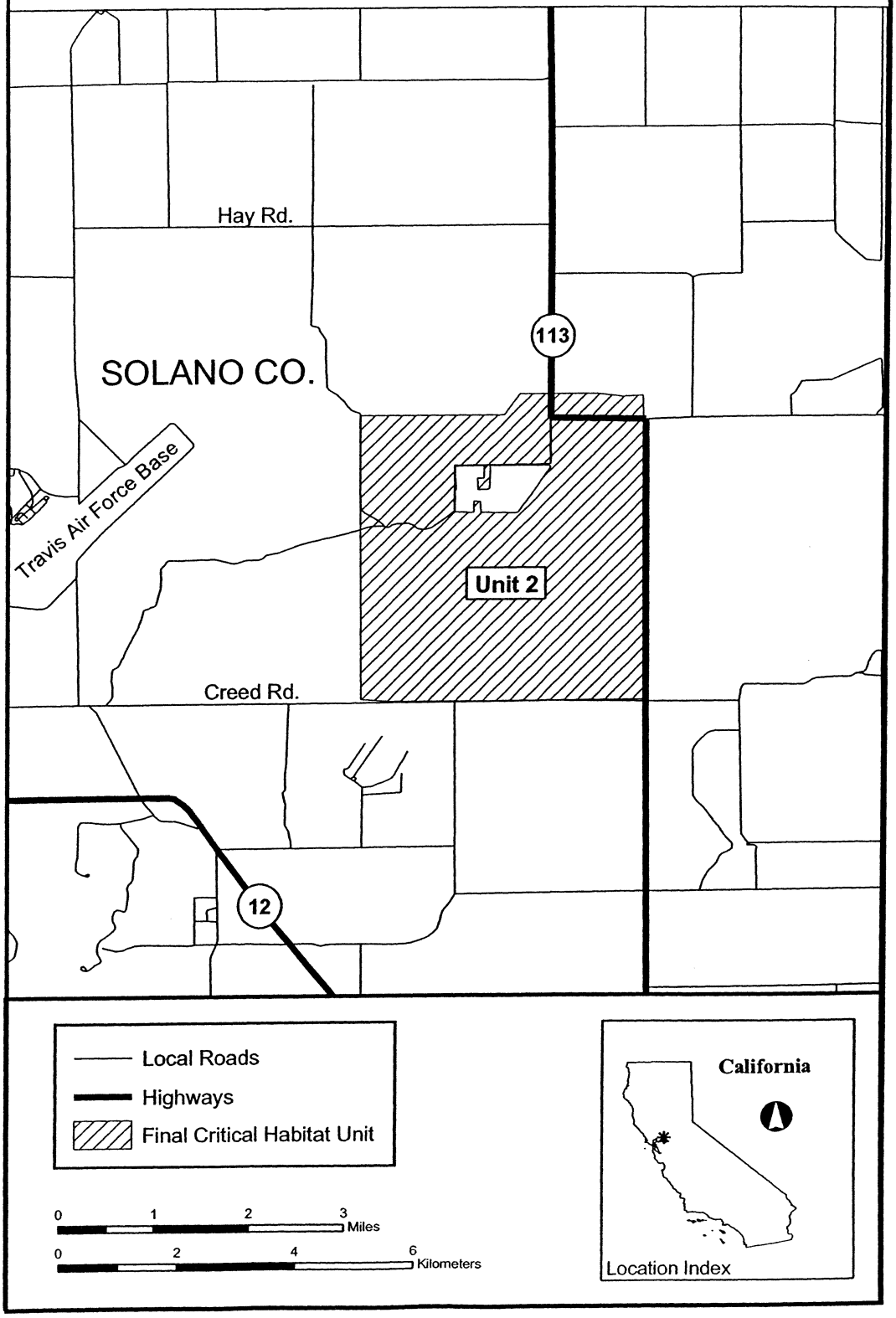


(17) Central Valley Region: Unit 2, Solano County, California.

(i) From USGS 1:24,000 scale quadrangles Dozier, and Birds Landing. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 601869, 4237342; 601865, 4236938; 601654, 4236932; 601647, 4237125; 601764, 4237131; 601764, 4237339; 601264, 4237328; 601264, 4237123; 601288, 4237127; 601297, 4236925; 601267, 4236923; 601266, 4236556; 601589, 4236551; 601590, 4236740; 601703, 4236734; 601710, 4236549; 602349, 4236539; 602884, 4237289; 602883, 4237336; returning to 601869, 4237342.; excluding land bounded by: 603666, 4238548; 604112, 4238500; 604463, 4238516; 604510, 4237050; 604494, 4233370; 601674, 4233354; 600161, 4233354; 599699, 4233386; 599667, 4238197; 602105, 4238197; 602375, 4238548; 602822, 4238548; 603666, 4238548

(ii) Note: Map 9 (Central Valley Region, Unit 2) follows:

Map 9. Central Population of California Tiger Salamander Central Valley Region, Unit 2



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

(i) From USGS 1:24,000 scale quadrangles Clay, and Goose Creek. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 664836, 4248038; 665672, 4248010; 668028, 4248080; 667972, 4246477; 668014, 4245543; 668070, 4244525; 668098, 4244093; 667735, 4243954; 667443, 4243758; 667178, 4243424; 666927, 4242866; 666982, 4242588; 666885, 4242323; 666718, 4242016; 666606, 4241667; 666216, 4241361; 665644, 4241193; 665337, 4241207; 664947, 4241249; 664766, 4241124; 664362, 4241138; 664125, 4241110; 663790, 4240970; 663246, 4242100; 663149, 4242323; 662884, 4242936; 663316, 4243312; 663302, 4243758; 663051, 4243898; 662633, 4243954; 662563, 4244121; 662563, 4244665; 662368, 4244679; 661713, 4244706; 660626, 4244623; 660626, 4244804; 660723, 4245013; 660514, 4245180; 660500, 4245613; 660514, 4245919; 660654, 4246337; 660960, 4246672; 661072, 4247048; 660779, 4247146; 660695, 4247369; 660793, 4247732; 660904, 4248219; 661211, 4248526; 661629, 4248721; 664822, 4248735; 664905, 4248554; returning to 664836, 4248038; excluding land bounded by: 663699, 4245563; 663773, 4245470; 663872, 4245529; 663908, 4245484; 664132, 4245487; 664193, 4245525; 664343, 4245508; 664446, 4245534; 664455, 4245223; 664686, 4245225; 664681, 4245603; 664669, 4245660; 664669, 4245731; 664793, 4245767; 664776, 4245798; 664712, 4245836; 664686, 4245962; 664629, 4246000; 664643, 4246107; 664517, 4246081; 664512, 4246171; 664315, 4246178; 664236, 4246190; 663987, 4246188; 663813, 4245903; 663732, 4245860; and returning to 663699, 4245563.; and excluding land bounded by: 663893, 4245225; 663790, 4245261; 663740, 4245213; 663759, 4244776; 663937, 4244476; 664146, 4244482; 664133, 4245143; returning to 663893, 4245225.

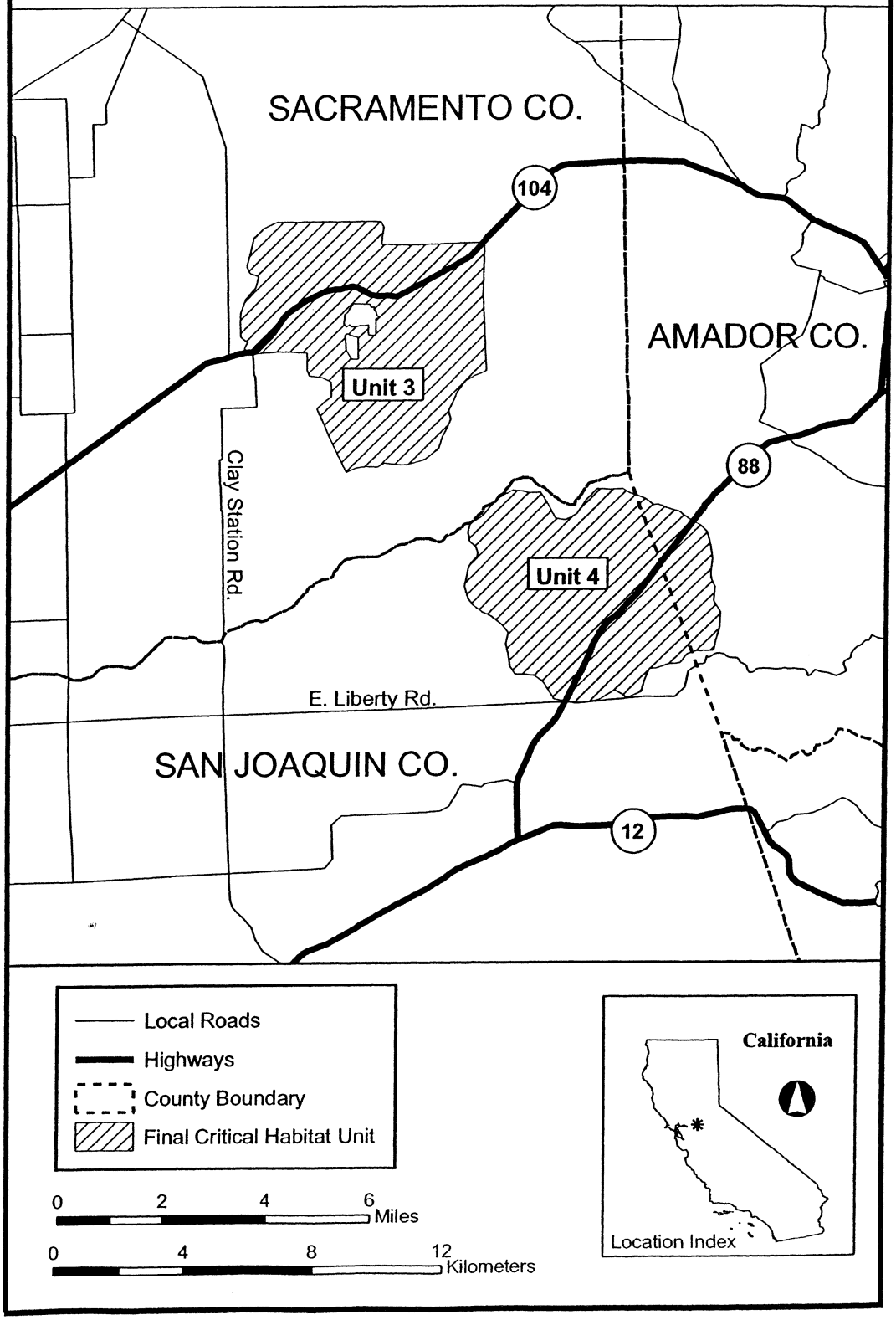
(ii) Note: Central Valley Region, Unit 3 is depicted on Map 10—Units 3 and 4—see paragraph (19)(ii).

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

(i) From USGS 1:24,000 scale quadrangles Goose Creek, Ione, Clements, and Wallace. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 672313, 4240429; 672654, 4240270; 672756, 4240232; 673017, 4240134; 673290, 4239940; 673438, 4239952; 673699, 4239838; 674062, 4239736; 674380, 4239498; 674698, 4239304; 674925, 4239089; 675039, 4238646; 675084, 4238248; 675039, 4237771; 675050, 4237658; 675175, 4237396; 675130, 4236954; 675346, 4236613; 675323, 4236045; 675198, 4235738; 675152, 4235409; 674653, 4235398; 674499, 4235346; 674346, 4235295; 674119, 4235023; 673812, 4234989; 673449, 4234864; 673188, 4234841; 673040, 4234455; 672961, 4234114; 672506, 4233944; 672313, 4234069; 672154, 4234160; 671723, 4233910; 671257, 4233774; 670905, 4233796; 670587, 4233830; 670246, 4233898; 670099, 4234160; 669905, 4234455; 669656, 4234637; 669292, 4234682; 669054, 4234682; 668883, 4234932; 668815, 4235295; 668747, 4235602; 668815, 4235977; 668622, 4236227; 668281, 4236499; 668020, 4236613; 667736, 4236806; 667566, 4237022; 667452, 4237408; 667566, 4237976; 667657, 4238135; 667816, 4238328; 667861, 4238441; 667804, 4238623; 667589, 4238827; 667555, 4239111; 667623, 4239339; 668009, 4239600; 668202, 4239827; 668497, 4240134; 668940, 4240395; 669201, 4240372; 669440, 4240327; 669803, 4240338; 670064, 4239906; 670269, 4239520; 670564, 4239463; 670928, 4239657; 671212, 4240099; 671564, 4240429; 671916, 4240406; returning to 672313, 4240429.

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

Map 10. Central Population of California Tiger Salamander Central Valley Region, Units 3, 4



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

(i) From USGS 1:24,000 scale quadrangles Goose Creek, Ione, Clements, and Wallace. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 683568, 4220263; 682958, 4220198; 682573, 4220519; 682460, 4220664; 682316, 4221113; 682316, 4221499; 682348, 4221772; 682508, 4222125; 682589, 4222494; 682974, 4222976; 683343, 4223345; 683279, 4223762; 683375, 4224067; 683343, 4224501; 683183, 4224790; 683086, 4225352; 683215, 4225657; 683456, 4225994; 683632, 4226170; 683953, 4226283; 684114, 4226411; 684467, 4226411; 684804, 4226267; 685157, 4226026; 685334, 4225496; 685350, 4224982; 685334, 4224549; 685510, 4224115; 685494, 4223682; 685382, 4223297; 685173, 4222976; 685029, 4222719; 684852, 4222205; 684772, 4221900; 684643, 4221483; 684531, 4220985; 684306, 4220664; 683921, 4220391; returning to 683568, 4220263.

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

(21) Central Valley Region: Unit 6, Calaveras County, California, Stanislaus County, California, and San Joaquin County, California.

(i) From USGS 1:24,000 scale quadrangles Valley Springs SW, Jenny Lind, Farmington, and Bachelor Valley. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 686359, 4213033; 686987, 4212296; 687479, 4211559; 687315, 4210958; 687542, 4210371; 687779, 4209756; 687643, 4209128; 687725, 4208582; 688134, 4208308; 688544, 4207789; 688844, 4207298; 688571, 4206424; 688349, 4206061; 688544, 4205714; 688708, 4205277; 688372, 4204505; 686597, 4204505; 685277, 4204505; 684693, 4204235; 684316, 4203393; 683884, 4202567; 683811, 4201719; 683900, 4199972; 683710, 4199678; 683164, 4199104; 682563, 4198831; 682285, 4198727; 682126, 4198667; 681470, 4198503; 680869, 4198858; 680665, 4199223; 680627, 4200080; 679933, 4200062; 679777, 4200279; 679777, 4201016; 679882, 4201242; 680596, 4201279; 680584, 4201670; 680077, 4201672; 679832, 4202382; 679764, 4202757; 679752, 4203304; 679504, 4203338; 679531, 4203829; 679149, 4204048; 678630, 4204212; 678220, 4204649; 677810, 4204976; 677346, 4205495; 677264, 4206069; 677264, 4206834; 677483, 4207817; 678329, 4208145; 678603, 4208308; 678684, 4209100; 678821, 4209483; 680253, 4210794; 681850, 4211270; 681985, 4211350; 682777, 4211817; 683589, 4212297; 684384, 4212766; 685533, 4212474; 685557, 4212491; returning to 686359, 4213033.

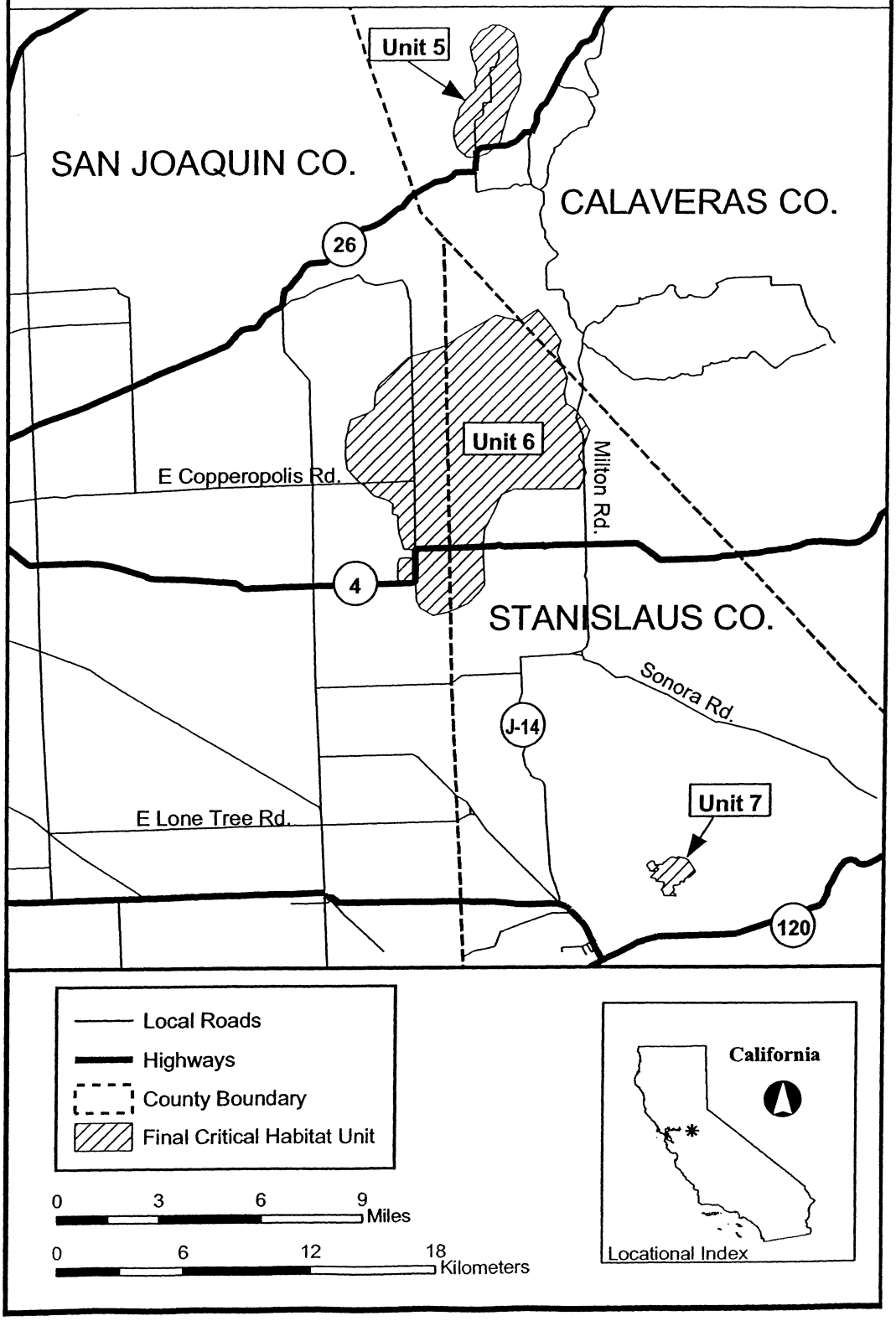
(ii) Note: Central Valley Region, Unit 6 is depicted on Map 11—Units 5, 6, and 7—see paragraph (22)(ii).

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

(i) From USGS 1:24,000 scale quadrangle Oakdale. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 693428, 4186960; 693463, 4186942; 693504, 4186969; 693517, 4186960; 693709, 4186853; 693941, 4186479; 694034, 4186323; 694003, 4186260; 693941, 4186198; 693900, 4186166; 693816, 4186086; 693771, 4186059; 693646, 4186006; 693588, 4185993; 693544, 4185975; 693544, 4185930; 693517, 4185877; 693526, 4185792; 693495, 4185805; 693459, 4185836; 693423, 4185823; 693397, 4185863; 693352, 4185859; 693330, 4185828; 693303, 4185756; 693298, 4185712; 693218, 4185689; 693191, 4185645; 693138, 4185640; 693080, 4185676; 693026, 4185671; 693000, 4185645; 692964, 4185582; 693000, 4185511; 693049, 4185493; 693018, 4185440; 693022, 4185386; 692995, 4185333; 692991, 4185284; 693058, 4185261; 693098, 4185243; 693093, 4185168; 692986, 4185177; 692527, 4185172; 692514, 4185243; 692506, 4185297; 692501, 4185303; 692478, 4185364; 692456, 4185413; 692420, 4185449; 692456, 4185515; 692509, 4185627; 692523, 4185716; 692523, 4185774; 692523, 4185823; 692433, 4185841; 692179, 4185850; 692152, 4185903; 692157, 4185966; 691916, 4186028; 691925, 4186064; 692010, 4186122; 692041, 4186175; 692090, 4186220; 692121, 4186260; 692179, 4186327; 692246, 4186349; 692277, 4186389; 692291, 4186421; 692273, 4186461; 692228, 4186470; 692144, 4186447; 692108, 4186434; 692108, 4186376; 692099, 4186323; 692019, 4186314; 691987, 4186345; 691970, 4186345; 691921, 4186345; 691880, 4186345; 691858, 4186385; 691858, 4186434; 691840, 4186452; 691800, 4186470; 691782, 4186496; 691747, 4186532; 691729, 4186568; 691738, 4186621; 691773, 4186675; 691818, 4186719; 691858, 4186746; 691903, 4186764; 691947, 4186795; 691987, 4186804; 692045, 4186804; 692144, 4186608; 692228, 4186626; 692326, 4186639; 692398, 4186644; 692478, 4186644; 692540, 4186768; 692607, 4186755; 692634, 4186786; 692670, 4186849; 692790, 4186933; 692848, 4186969; 692911, 4187000; 693026, 4187005; 693067, 4186951; 693125, 4186947; 693174, 4186951; 693200, 4187027; 693379, 4186987; returning to 693428, 4186960.

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

Map 11. Central Population of California Tiger Salamander Central Valley Region, Units 5, 6, 7



(23) Central Valley Region: Unit 8, Stanislaus County, California, and Merced County, California.

(i) From USGS 1:24,000 scale quadrangles La Grange, and Snelling. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 725431, 4171496; 725601, 4170824; 725374, 4170317; 725561, 4169703; 725374, 4168849; 725587, 4168488; 725787, 4167394; 725257, 4165657; 725200, 4165472; 725093, 4164938; 724466, 4164337; 724132, 4164284; 723759, 4164284; 723267, 4164611; 723238, 4164631; 722571, 4165765; 722250, 4166366; 721817, 4167393; 723498, 4167406; 723802, 4167803; 723935, 4168465; 724279, 4168677; 724252, 4169047; 723894, 4169053; 723869, 4168849; 723432, 4168835; 723458, 4168663; 722664, 4168650; 722651, 4169074; 722584, 4170027; 723086, 4170091; 723352, 4169961; 723869, 4170371; 724200, 4170411; 724133, 4170861; 724199, 4171065; 724438, 4171245; 724888, 4171192; 724914, 4171391; 725153, 4171457; returning to 725431, 4171496.

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

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

(i) From USGS 1:24,000 scale quadrangles Yosemite Lake, Haystack Mtn., Merced, and Planada. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 737111, 4141220; 736885, 4140606; 736578, 4140319; 735779, 4139868; 735411, 4139418; 735001, 4138885; 734755, 4138516; 734345, 4138352; 733977, 4138291; 733198, 4137390; 732850, 4137308; 732625, 4137738; 732707, 4138230; 732359, 4138414; 732133, 4138373; 731990, 4138230; 731969, 4138127; 731744, 4137922; 731457, 4137308; 731129, 4137082; 730904, 4137349; 730638, 4137697; 730310, 4137656; 729900, 4137717; 729593, 4137758; 729409, 4138127; 729368, 4138332; 729081, 4138516; 729224, 4138783; 729532, 4139008; 729511, 4139315; 729204, 4139418; 728897, 4139520; 729429, 4140278; 729224, 4140667; 728897, 4140933; 728692, 4140892; 728282, 4140708; 728118, 4140667; 727914, 4140729; 727729, 4141077; 727606, 4141077; 727442, 4141179; 727238, 4141282; 726848, 4141302; 726725, 4141445; 726643, 4141753; 726725, 4141937; 726562, 4142654; 726562, 4142838; 726439, 4142982; 726172, 4143084; 725660, 4143105; 725476, 4143187; 725599, 4143412; 725476, 4143822; 725333, 4143965; 725087, 4144026; 724943, 4144149; 724902, 4144477; 725066, 4144948; 725455, 4145235; 725968, 4145399; 726193, 4145522; 726480, 4145890; 726930, 4146095; 727381, 4146136; 727729, 4146485; 728180, 4146874; 728630, 4147263; 728897, 4147591; 729388, 4147795; 729900, 4147816; 730392, 4147857; 730945, 4148103; 731478, 4148021; 732010, 4147714; 732297, 4147283; 732338, 4146915; 732625, 4146525; 733034, 4146157; 733260, 4145890; 733260, 4145276; 733116, 4144784; 733362, 4144211; 733608, 4143801; 733854, 4143514; 734120, 4143289; 734550, 4142982; 735370, 4142797; 736189, 4142593; 736619, 4142470; 737111, 4141978; returning to 737111, 4141220.

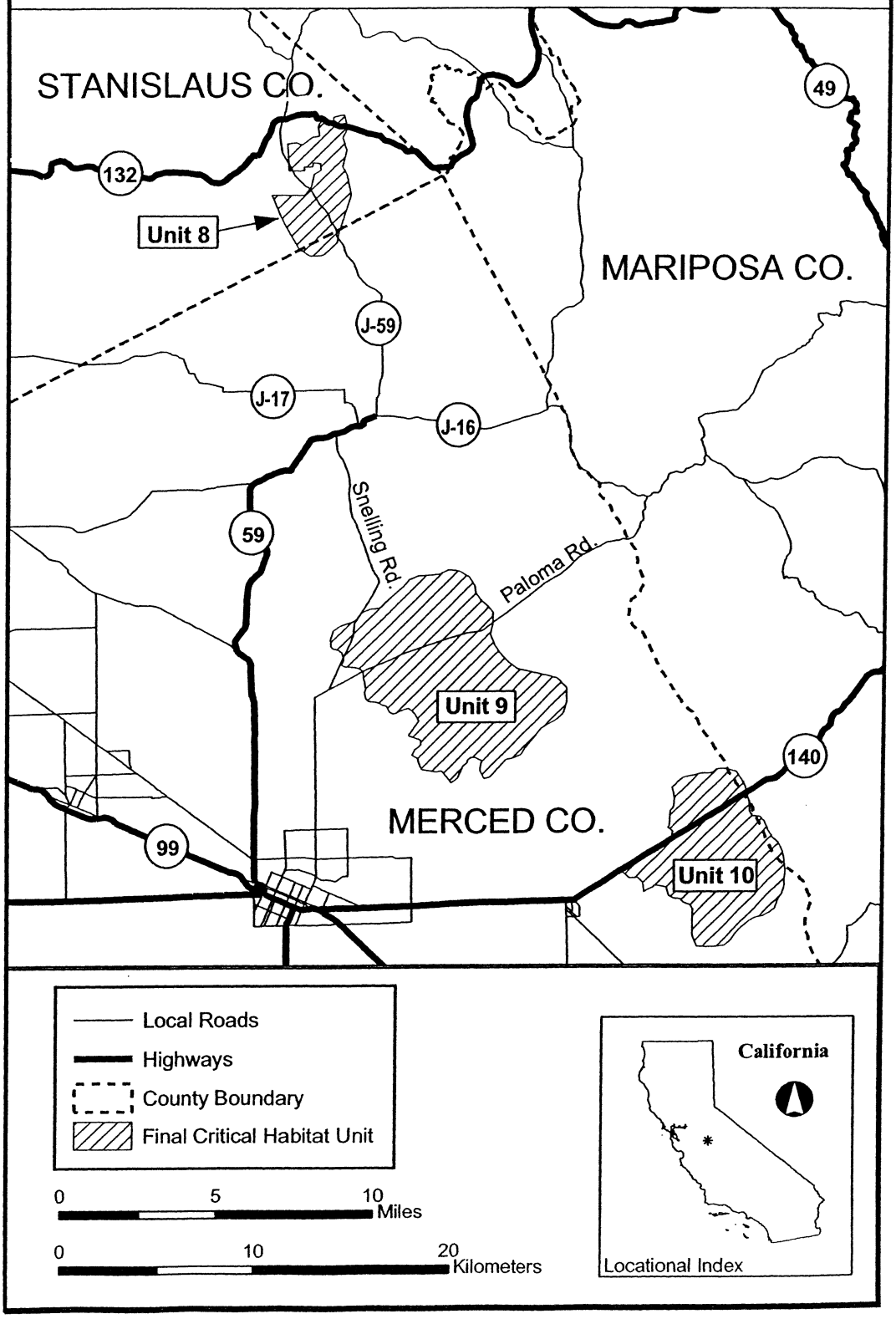
(ii) Note: Central Valley Region, Unit 9 is depicted on Map 12—Units 8, 9, and 10—see paragraph (25)(ii):

(25) Central Valley Region: Unit 10, Merced County, California, and Mariposa County, California.

(i) From USGS 1:24,000 scale quadrangles Planada, and Owens Reservoir. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 745886, 4137625; 746150, 4137196; 746265, 4136981; 746447, 4136371; 746447, 4136305; 746529, 4136041; 746530, 4136009; 746546, 4135595; 746645, 4135364; 746760, 4135315; 746880, 4135309; 747140, 4135298; 747338, 4135067; 747519, 4134655; 747750, 4134226; 748031, 4133945; 748229, 4133533; 748311, 4133170; 748353, 4132808; 748361, 4132741; 748394, 4132625; 748394, 4132394; 748344, 4132047; 748328, 4131750; 748212, 4131371; 748064, 4131123; 747866, 4130579; 747684, 4130414; 747288, 4130232; 746826, 4130117; 746562, 4129952; 746100, 4129589; 745820, 4129275; 745605, 4128978; 745292, 4128714; 744863, 4128648; 744367, 4128632; 743856, 4128665; 743608, 4129209; 743608, 4129572; 743608, 4130232; 743641, 4130579; 743493, 4130793; 743179, 4130942; 743014, 4131107; 742684, 4131123; 742404, 4131255; 742288, 4131684; 742024, 4131750; 741727, 4131783; 741628, 4131684; 741150, 4131453; 741117, 4131932; 740820, 4132180; 740407, 4132163; 740061, 4132444; 740358, 4132757; 740589, 4132922; 740919, 4133153; 741249, 4133351; 741414, 4133417; 741826, 4133681; 742156, 4133929; 742585, 4134308; 742618, 4134556; 742371, 4134721; 742437, 4134853; 742470, 4135067; 742453, 4135331; 742486, 4135595; 742618, 4135727; 742668, 4135859; 742684, 4136255; 742668, 4136437; 742585, 4136800; 742783, 4136981; 742882, 4137097; 743146, 4137344; 743460, 4137410; 743740, 4137460; 744103, 4137559; 744450, 4137542; 744632, 4137592; 744863, 4137757; 745077, 4137790; 745393, 4137760; 745424, 4137757; returning to 745886, 4137625.

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

Map 12. Central Population of California Tiger Salamander Central Valley Region, Units 8, 9, 10

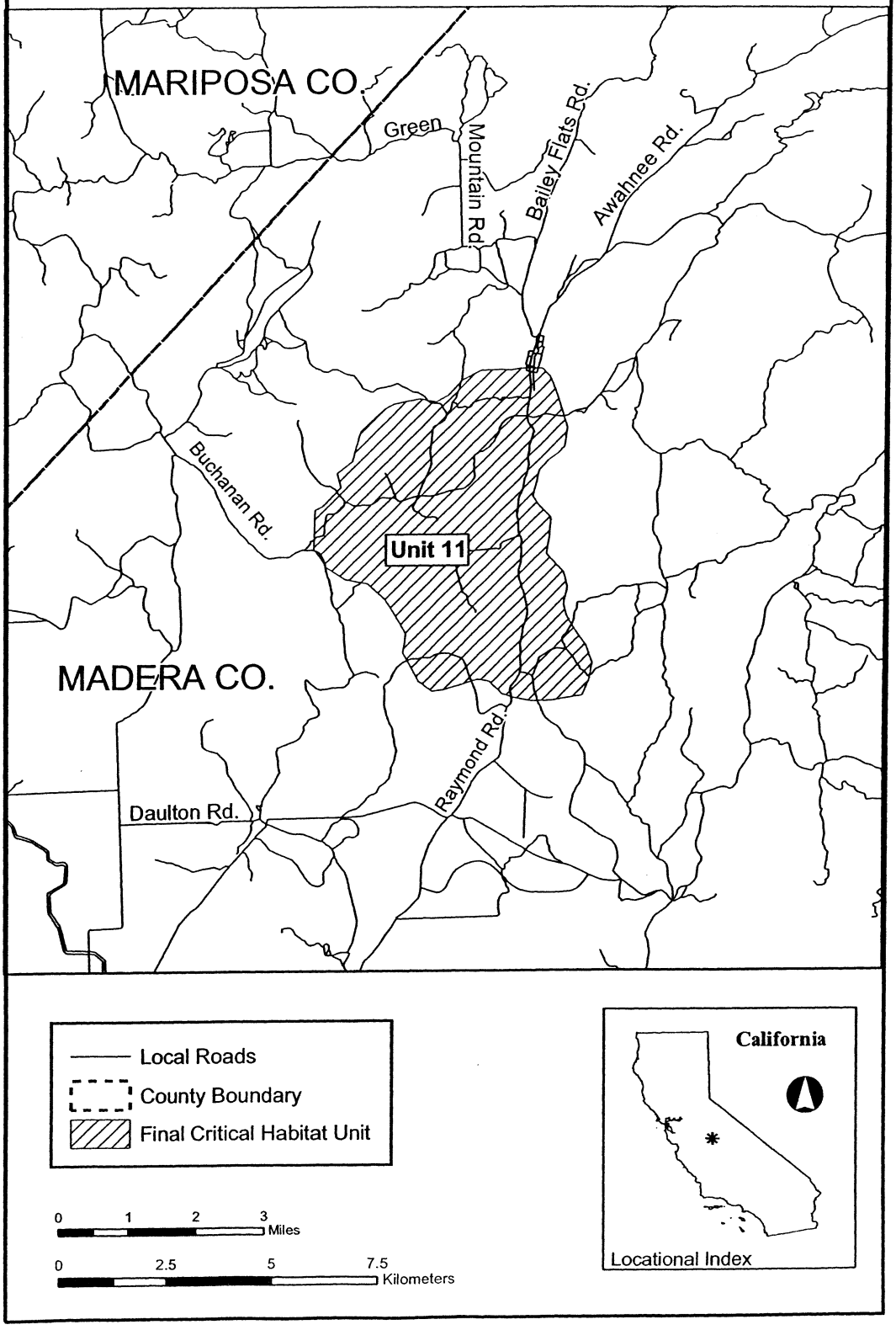


(26) Central Valley Region: Unit 11, Madera County, California.

(i) From USGS 1:24,000 scale quadrangle Raymond. Land bounded by the following UTM Zone 11, NAD83 coordinates (E,N): 236646, 4118534; 236735, 4119457; 236919, 4119535; 237364, 4119940; 237297, 4120289; 237671, 4120535; 237749, 4120814; 237895, 4121224; 238305, 4121557; 238526, 4121737; 238726, 4121829; 239329, 4121896; 239728, 4121811; 240005, 4121943; 240340, 4122266; 240817, 4122475; 241265, 4122461; 241503, 4122431; 241714, 4122463; 242088, 4122454; 242236, 4122430; 242404, 4122240; 242517, 4121903; 242649, 4121386; 242729, 4121007; 242656, 4120563; 242498, 4120423; 242265, 4120288; 242025, 4120049; 241933, 4119770; 241837, 4119447; 241973, 4119229; 242224, 4118929; 242164, 4118469; 242064, 4118071; 242454, 4117612; 242521, 4117249; 242406, 4116852; 242463, 4116564; 242691, 4116146; 242868, 4115880; 243004, 4115423; 242888, 4115011; 242718, 4114693; 241980, 4114620; 241532, 4114633; 241135, 4114733; 240843, 4114856; 240549, 4115174; 240283, 4115221; 239933, 4115138; 239492, 4115032; 239192, 4115021; 238894, 4115279; 238776, 4115541; 238564, 4115973; 238623, 4116194; 238668, 4116431; 238374, 4116988; 238226, 4117252; 237848, 4117650; 237318, 4117788; 236903, 4118099; 236797, 4118315; returning to 236646, 4118534.

(ii) Note: Map 13 (Central Valley Region, Unit 11) follows:

Map 13. Central Population of California Tiger Salamander Central Valley Region, Unit 11

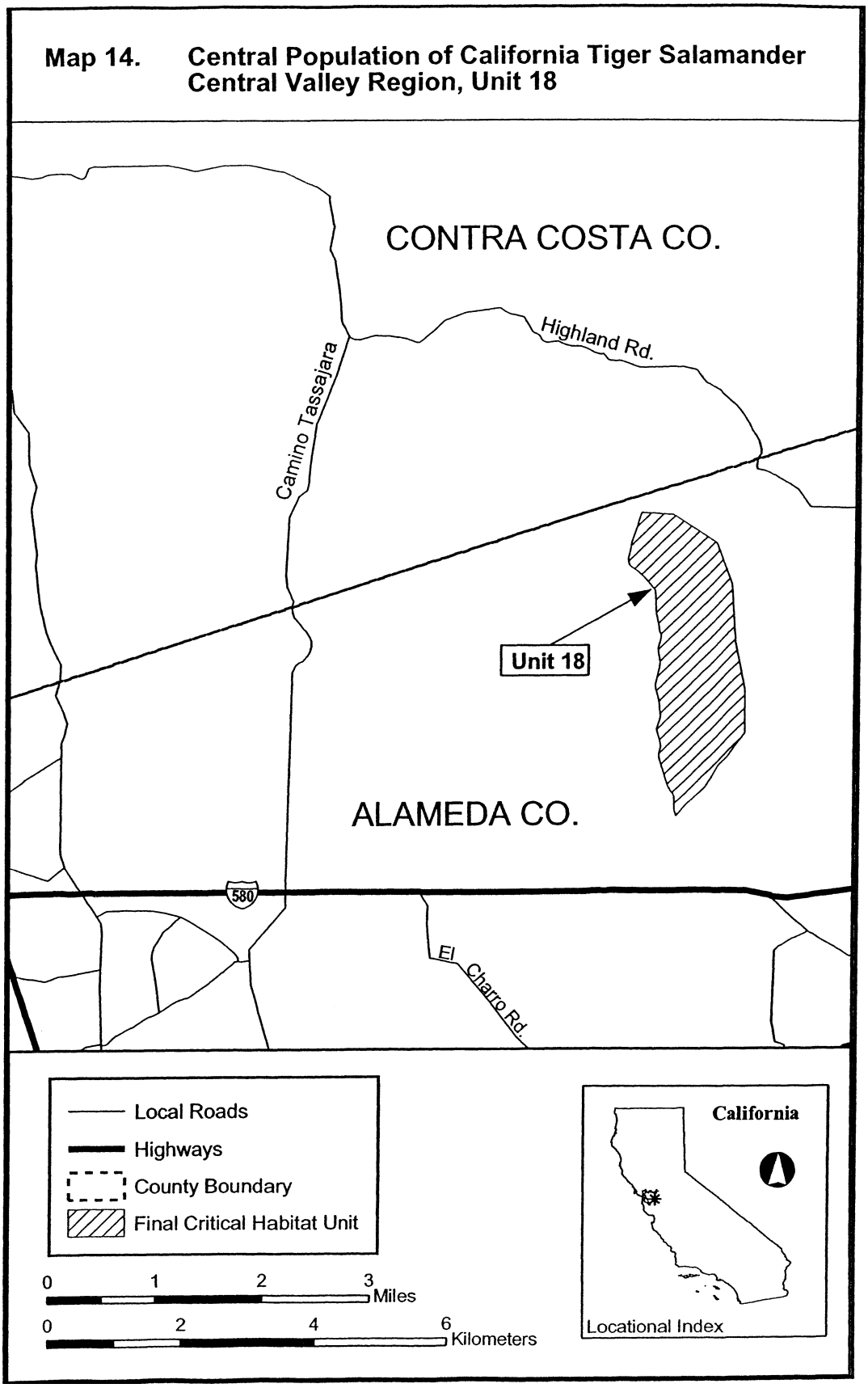


(27) Central Valley Region: Unit 18, Alameda County, California.

(i) From USGS 1:24,000 scale quadrangle Tassajara, and Livermore. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 606493, 4148131; 606445, 4148064; 606428, 4148018; 606432, 4147932; 606450, 4147848; 606466, 4147818; 606558, 4147771; 606599, 4147772; 606755, 4147834; 606834, 4147825; 606924, 4147745; 606959, 4147723; 606992, 4147438; 606865, 4146951; 606716, 4146634; 606357, 4146443; 606039, 4146380; 605807, 4146487; 605801, 4146507; 605762, 4146550; 605680, 4146592; 605678, 4146593; 605573, 4146697; 605446, 4146951; 605479, 4147194; 605495, 4147179; 605532, 4147116; 605552, 4147114; 605551, 4147218; 605591, 4147274; 605593, 4147302; 605461, 4147339; 605440, 4147342; 605404, 4147396; 605341, 4147607; 605300, 4147660; 605329, 4147701; 605322, 4147708; 605273, 4147694; 605244, 4147731; 605245, 4147738; 605236, 4147742; 605192, 4147798; 605044, 4148010; 605102, 4148319; 605127, 4148265; 605220, 4148111; 605251, 4148083; 605294, 4148086; 605431, 4148129; 605537, 4148188; 605655, 4148273; 605680, 4148317; 605768, 4148412; 605818, 4148448; 605900, 4148447; 605946, 4148417; 606075, 4148398; 606134, 4148371; 606201, 4148308; 606331, 4148228; 606492, 4148189; 606500, 4148167; returning to 606493, 4148131.

(ii) Note: Map 14 (Central Valley Region, Unit 18) follows:

Map 14. Central Population of California Tiger Salamander Central Valley Region, Unit 18



(28) Southern San Joaquin Region: Unit 1a, Madera County, California.

(i) From USGS 1:24,000 scale quadrangles Little Table Mtn., Millerton Lake West, Lanes Bridge, and Friant. Land bounded by the following UTM Zone 11, NAD83 coordinates (E,N): 253140, 4094581; 253210, 4094842; 253281, 4095121; 253387, 4095398; 253645, 4095559; 253861, 4095616; 253852, 4096041; 253748, 4096349; 253653, 4096816; 253632, 4097047; 253685, 4097593; 253940, 4097984; 254341, 4098171; 254443, 4098377; 254346, 4098808; 254531, 4099222; 254727, 4099510; 254695, 4099849; 254591, 4100174; 254965, 4100204; 255341, 4100552; 255900, 4100711; 256220, 4100727; 256431, 4101262; 256505, 4101877; 256706, 4102254; 256840, 4102405; 257279, 4102626; 257811, 4102645; 258162, 4102587; 258498, 4102301; 258635, 4101955; 258734, 4101560; 258553, 4100933; 258138, 4100535; 257954, 4100347; 257908, 4100348; 257918, 4100725; 257542, 4100727; 257557, 4101144; 257113, 4101161; 256981, 4098268; 256639, 4098365; 255431, 4098363; 255427, 4097540; 256213, 4097523; 256203, 4096729; 254978, 4096742; 254920, 4094736; 254503, 4094762; 254503, 4094758; 253976, 4094771; 253976, 4094613; 253892, 4094501; 253919, 4094443; 253916, 4094397; 253914, 4094362; 253868, 4094365; 253822, 4094362; 253718, 4094252; 253710, 4094201; 253710, 4094200; 253701, 4094209; 253429, 4094386; 253140, 4094581.

(ii) Note: Southern San Joaquin Region, Unit 1a is depicted on—Units 1a, 1b, and 2—see paragraph (30)(ii).

(29) Southern San Joaquin Region: Unit 1b, Madera County, California.

(i) From USGS 1:24,000 scale quadrangle Lanes Bridge. Land bounded by the following UTM Zone 11, NAD83 coordinates (E,N): 251184, 4092207; 251205, 4092542; 251262, 4093159; 252944, 4093159; 253152, 4093075; 253259, 4093191; 253246, 4093164; 253246, 4092760; 253951, 4092757; 254008, 4092773; 254065, 4092790; 254068, 4092831; 254018, 4092849; 253977, 4092852; 253939, 4092895; 253937, 4092936; 253960, 4092986; 253988, 4093030; 254024, 4093028; 254075, 4093024; 254098, 4092992; 254134, 4092985; 254195, 4092981; 254190, 4092910; 254216, 4092832; 254223, 4092791; 254226, 4092744; 254465, 4092734; 254461, 4092342; 254633, 4092331; 254636, 4092535; 254698, 4092551; 254738, 4092615; 254757, 4092670; 254772, 4092746; 254777, 4092832; 254817, 4092901; 254877, 4092959; 254914, 4092978; 254971, 4092712; 254985, 4092375; 254980, 4092021; 254713, 4091436; 254292, 4091214; 253805, 4091086; 253542, 4090837; 253614, 4090584; 253836, 4090446; 253770, 4090238; 253503, 4089936; 253348, 4089733; 253173, 4089528; 253141, 4089490; 253105, 4089475; 252915, 4089348; 252875, 4089294; 252838, 4089192; 252842, 4089126; 252835, 4089116; 252636, 4088822; 252641, 4088627; 252573, 4088288; 252564, 4088242; 252170, 4087611; 251840, 4087437; 251615, 4087239; 251458, 4087089; 251407, 4087039; 251122, 4087288; 251185, 4087726; 251211, 4088132; 251215, 4088486; 251168, 4088861; 251100, 4089184; 251100, 4089751; 251111, 4089927; 251999, 4089960; 252301, 4089976; 252328, 4090400; 252364, 4090982; 252307, 4091198; 251941, 4091292; 251477, 4091232; 251191, 4091481; 251185, 4091658; returning to 251184, 4092207.

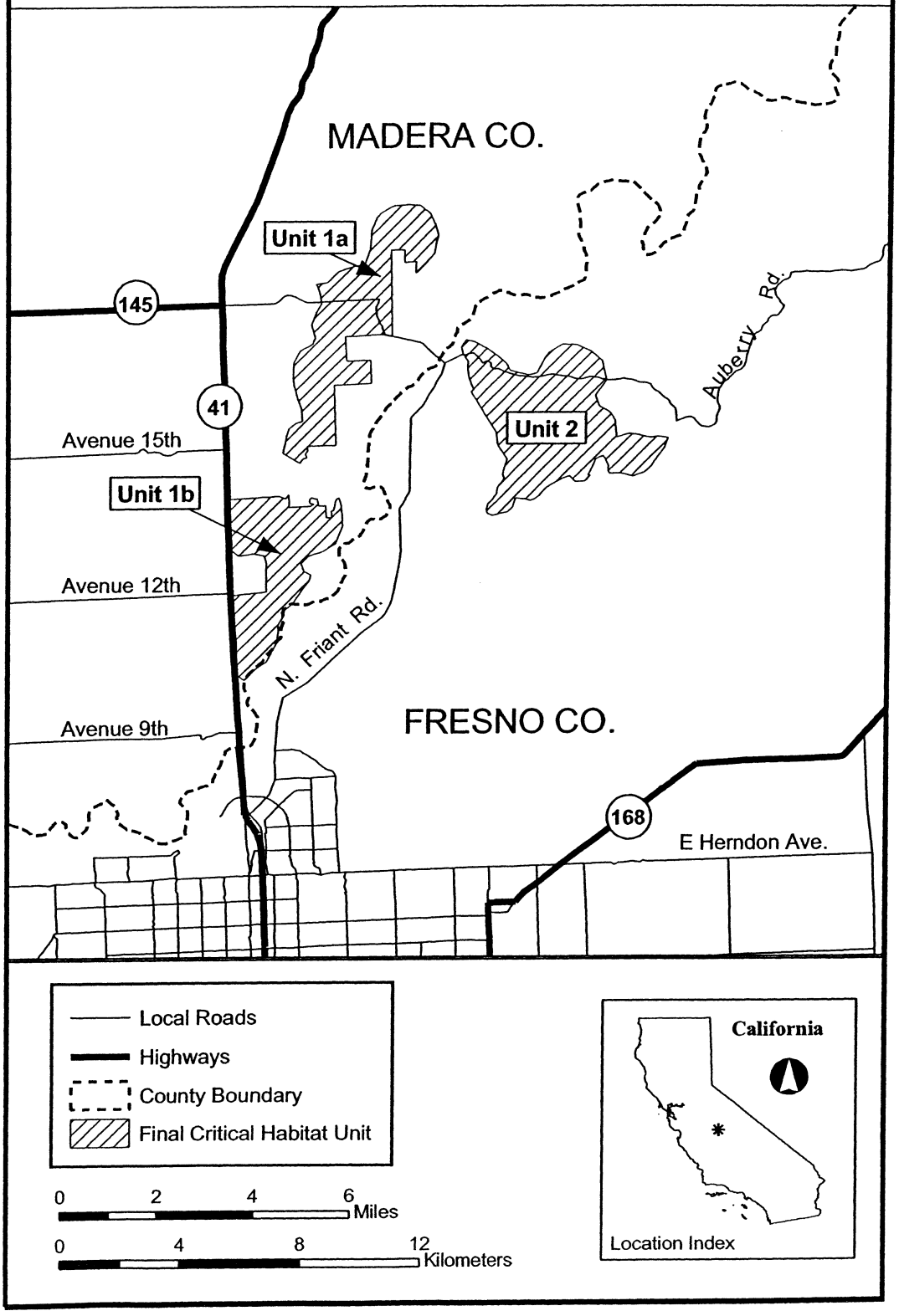
(ii) Note: Southern San Joaquin Region, Unit 1b is depicted on Map 15—Units 1A, 1B, and 2—see paragraph (30)(ii).

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

(i) From USGS 1:24,000 scale quadrangle Friant. Land bounded by the following UTM Zone 11, NAD83 coordinates (E,N): 259307, 4097734; 259442, 4097902; 259483, 4097988; 259743, 4097901; 260153, 4097663; 260490, 4097393; 260773, 4097110; 260916, 4096853; 261506, 4096656; 261810, 4096708; 262107, 4097203; 262261, 4097388; 262718, 4097625; 263193, 4097577; 263655, 4097318; 263988, 4096978; 264104, 4096298; 263703, 4095827; 263821, 4095465; 264110, 4095270; 264211, 4095169; 264294, 4094979; 264329, 4094398; 264769, 4094484; 264988, 4094446; 265443, 4094298; 265672, 4094337; 266030, 4094264; 265865, 4093902; 265521, 4093499; 265441, 4093345; 265199, 4093165; 264774, 4093047; 264401, 4093181; 264044, 4093188; 263971, 4093270; 264002, 4093471; 263856, 4093802; 263594, 4093711; 263462, 4093422; 263323, 4093192; 263373, 4093166; 263222, 4092989; 262867, 4092976; 262704, 4093198; 262451, 4093108; 262142, 4092986; 261885, 4092843; 261639, 4092593; 261510, 4092512; 261139, 4092518; 260841, 4092572; 260715, 4092261; 260534, 4092127; 260512, 4092123; 260039, 4092041; 259874, 4092120; 259842, 4092143; 259838, 4092231; 259887, 4092407; 259978, 4092494; 260034, 4092547; 260200, 4092731; 260241, 4092941; 260482, 4093245; 260433, 4093402; 260625, 4093897; 260461, 4094183; 260327, 4094416; 260317, 4094701; 260313, 4094838; 259541, 4096215; 259541, 4096227; 259623, 4096279; 259542, 4096507; 259542, 4096570; 259485, 4096704; 259472, 4096979; 259490, 4097262; 259412, 4097426; 259331, 4097555; returning to 259307, 4097734.

(ii) Note: Southern San Joaquin Valley Region, Unit 2 is depicted on Map 15—Units 1a, 1b, and 2—which follows:

Map 15. Central Population of California Tiger Salamander Southern San Joaquin Region, Units 1a, 1b, 2



(31) Southern San Joaquin Region: Unit 3a, Fresno County, California.

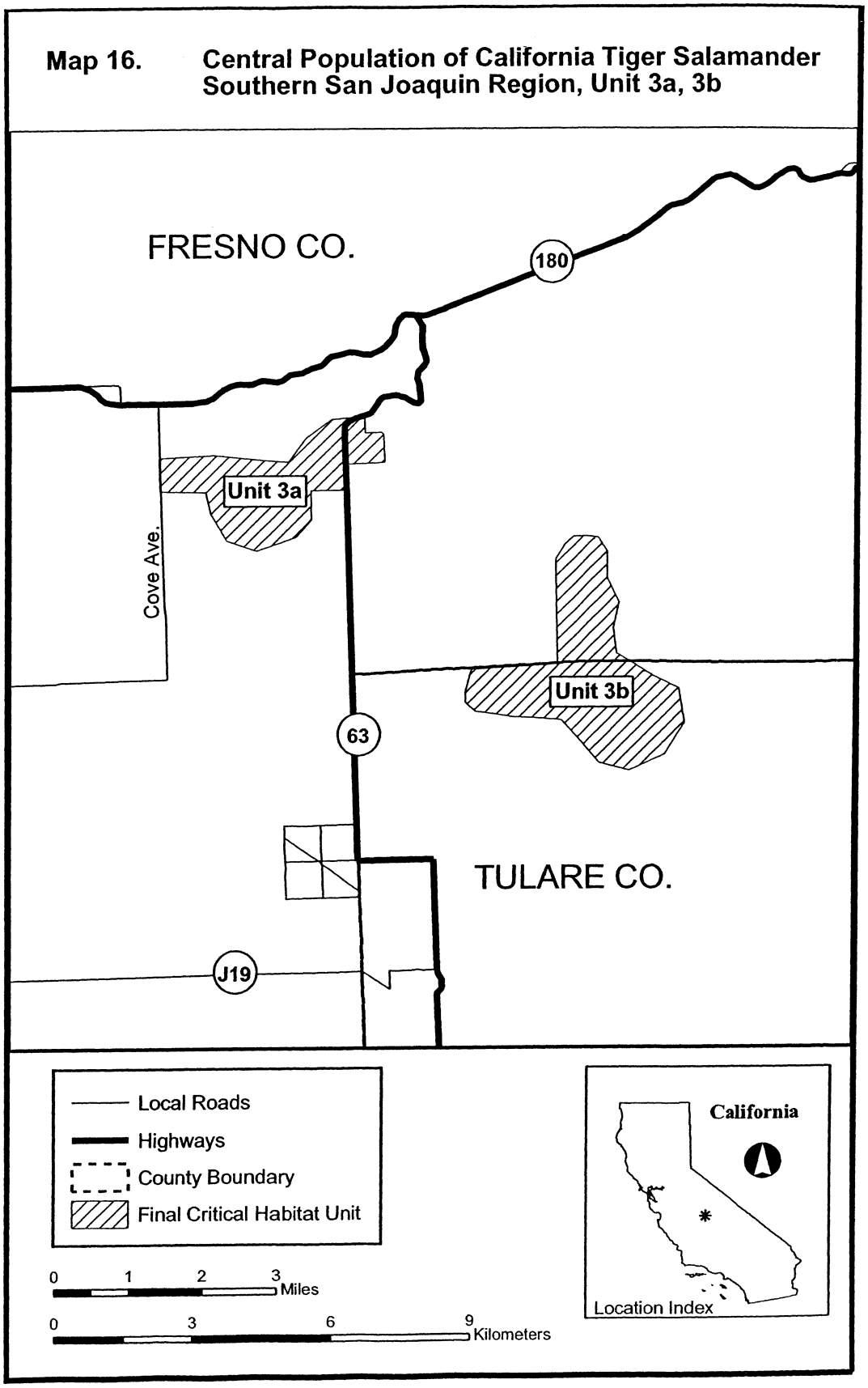
(i) From USGS 1:24,000 scale quadrangle Orange Cove North. Land bounded by the following UTM Zone 11, NAD83 coordinates (E,N): 290111, 4064680; 291311, 4064655; 292277, 4064495; 292897, 4064406; 293304, 4064906; 293877, 4065270; 294584, 4065309; 294577, 4064940; 294973, 4064926; 294962, 4064261; 294150, 4064279; 294132, 4063716; 293340, 4063754; 293311, 4063118; 292970, 4062774; 292103, 4062528; 291469, 4062793; 291158, 4063413; 291086, 4063868; 290091, 4063956; returning to 290111, 4064680.

(ii) Note: Southern San Joaquin Region, Unit 3a is depicted on Map 16—Units 3A and 3B—see paragraph (32)(ii).

(32) Southern San Joaquin Region: Unit 3b, Fresno County, California, and Tulare County, California.

(i) From USGS 1:24,000 scale quadrangles Orange Cove North, and Tucker Mtn. Land bounded by the following UTM Zone 11, NAD83 coordinates (E,N): 296384, 4058957; 296398, 4059181; 296564, 4059658; 298431, 4059652; 298432, 4059676; 298529, 4061925; 298738, 4062217; 298933, 4062407; 299169, 4062400; 299471, 4062349; 299655, 4062030; 299619, 4061457; 299860, 4060916; 299700, 4060350; 299740, 4059797; 300013, 4059606; 300483, 4059275; 301039, 4058965; 301116, 4058185; 300650, 4057538; 299855, 4057238; 299218, 4057453; 298847, 4057926; 298453, 4058427; 297933, 4058509; 297411, 4058567; 297115, 4058636; 296596, 4058743; returning to 296384, 4058957.

(ii) Note: Southern San Joaquin Valley Region, Unit 3b is depicted on Map 16—Units 3a and 3b—which follows:

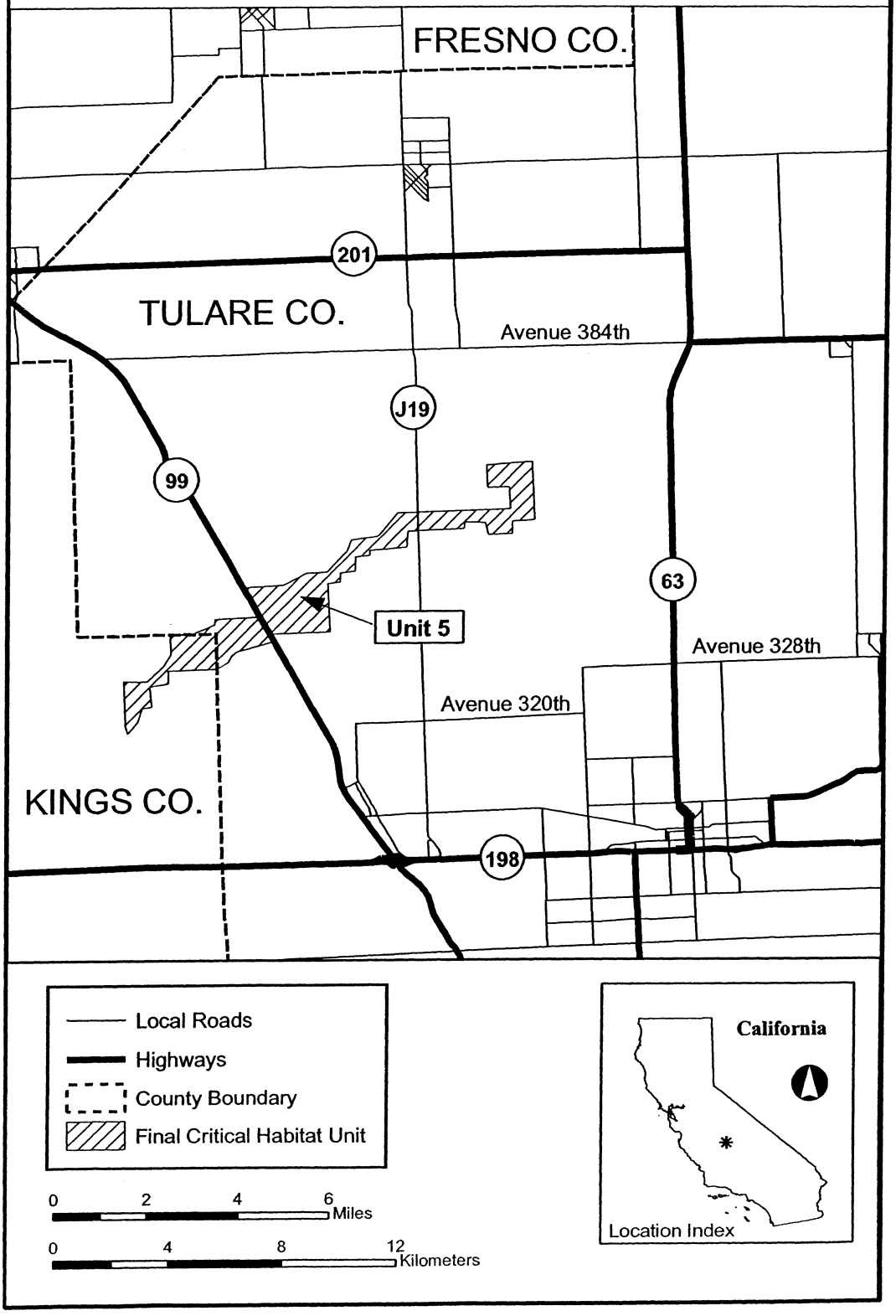

Map 16. Central Population of California Tiger Salamander
Southern San Joaquin Region, Unit 3a, 3b
FRESNO CO.
180
Unit 3a
Cove Ave.
Unit 3b
63
TULARE CO.
J19
Local Roads
Highways
County Boundary
Final Critical Habitat Unit
0 1 2 3 Miles
0 3 6 9 Kilometers
California
Location Index

(33) Southern San Joaquin Region: Unit 5, Kings County, California, and Tulare County, California.

(i) From USGS 1:24,000 scale quadrangles Burris Park, Traver, Monson, and Remnoy. Land bounded by the following UTM Zone 11, NAD83 coordinates (E,N): 274730, 4029784; 275563, 4029744; 276147, 4030226; 276443, 4030631; 276461, 4031301; 277082, 4031301; 277215, 4031301; 278021, 4031581; 278032, 4031768; 279633, 4031751; 279157, 4032817; 280534, 4032802; 281370, 4033174; 282087, 4033164; 282812, 4033837; 282978, 4034239; 283924, 4034298; 284654, 4035065; 288568, 4034950; 288557, 4035728; 287806, 4035763; 287831, 4036538; 289234, 4036569; 289420, 4036545; 289388, 4034511; 288623, 4034511; 288596, 4034089; 287738, 4034107; 287670, 4034524; 286957, 4034603; 286918, 4034358; 284966, 4034398; 284896, 4033837; 283612, 4033835; 283601, 4033647; 283093, 4033631; 283051, 4033140; 282531, 4033101; 282523, 4032784; 282074, 4032765; 282062, 4031058; 280018, 4031127; 280070, 4030841; 278735, 4030571; 278537, 4030418; 278407, 4030226; 278030, 4030026; 278008, 4030027; 276325, 4030062; 276285, 4029617; 275634, 4029551; 275660, 4028843; 275341, 4028816; 275122, 4028323; 274758, 4027969; 274702, 4028196; returning to 274730, 4029784.

(ii) Note: Map 17 (Southern San Joaquin Valley Region, Unit 5) follows:

Map 17. Central Population of California Tiger Salamander Southern San Joaquin Region, Unit 5

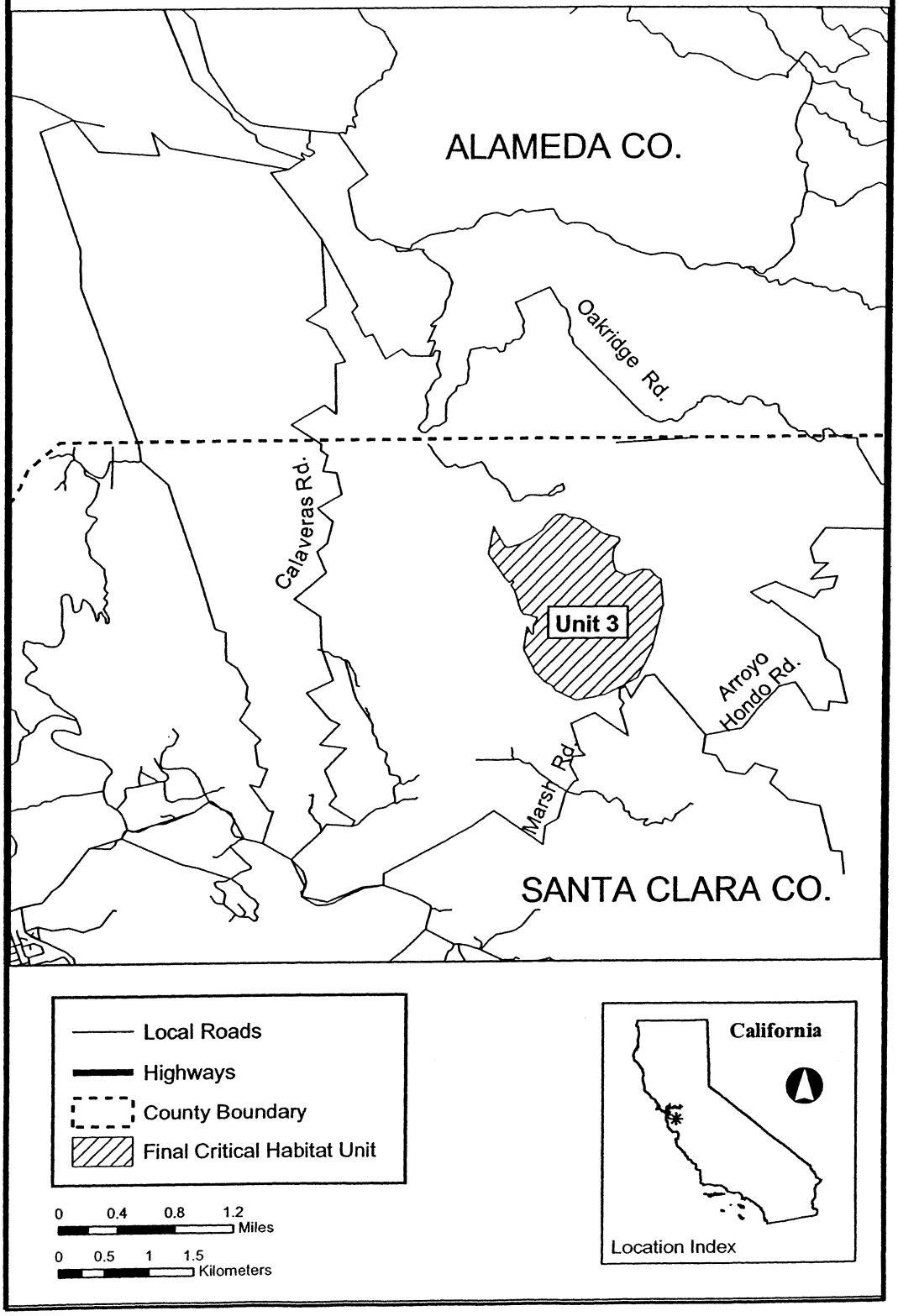


(34) East Bay Region: Unit 3, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangle Calaveras Reservoir. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 606493, 4148131; 606445, 4148064; 606428, 4148018; 606432, 4147932; 606450, 4147848; 606466, 4147818; 606558, 4147771; 606599, 4147772; 606755, 4147834; 606834, 4147825; 606924, 4147745; 606959, 4147723; 606992, 4147438; 606865, 4146951; 606716, 4146634; 606357, 4146443; 606039, 4146380; 605807, 4146487; 605801, 4146507; 605762, 4146550; 605680, 4146592; 605678, 4146593; 605573, 4146697; 605446, 4146951; 605479, 4147194; 605495, 4147179; 605532, 4147116; 605552, 4147114; 605551, 4147218; 605591, 4147274; 605593, 4147302; 605461, 4147339; 605440, 4147342; 605404, 4147396; 605341, 4147607; 605300, 4147660; 605329, 4147701; 605322, 4147708; 605273, 4147694; 605244, 4147731; 605245, 4147738; 605236, 4147742; 605192, 4147798; 605044, 4148010; 605102, 4148319; 605127, 4148265; 605220, 4148111; 605251, 4148083; 605294, 4148086; 605431, 4148129; 605537, 4148188; 605655, 4148273; 605680, 4148317; 605768, 4148412; 605818, 4148448; 605900, 4148447; 605946, 4148417; 606075, 4148398; 606134, 4148371; 606201, 4148308; 606331, 4148228; 606492, 4148189; 606500, 4148167; returning to 606493, 4148131.

(ii) Note: Map 18 (East Bay Region, Unit 3) follows:

Map 18. Central Population of California Tiger Salamander East Bay Region, Unit 3



(35) East Bay Region: Unit 5, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangles Calaveras Reservoir, and Mt. Day. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 611993, 4142407; 612080, 4142353; 612254, 4142429; 612417, 4142559; 612570, 4142679; 612668, 4142744; 612896, 4142712; 613157, 4142614; 613375, 4142483; 613560, 4142265; 613625, 4142113; 613669, 4141950; 613778, 4141819; 613963, 4141656; 614180, 4141406; 614246, 4141123; 614333, 4140851; 614267, 4140513; 614300, 4140296; 614191, 4139991; 614061, 4139795; 613832, 4139599; 613691, 4139480; 613527, 4139458; 613299, 4139534; 613081, 4139599; 612983, 4139686; 612809, 4139774; 612613, 4139752; 612504, 4139861; 612439, 4139948; 612254, 4139893; 612091, 4139991; 611971, 4140067; 610905, 4139741; 610208, 4139850; 609588, 4140546; 609621, 4141188; 609936, 4141656; 610415, 4141950; 610698, 4142026; 610763, 4142396; 610850, 4142570; 611025, 4142777; 611177, 4142918; 611340, 4142951; 611612, 4142799; 611884, 4142570; returning to 611993, 4142407.

(ii) Note: East Bay Region, Unit 5 is depicted on Map 19—Units 5, 6, 7, and 8—see paragraph (38)(ii).

(36) East Bay Region: Unit 6, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangles Lick Observatory, and Isabel Valley. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 622442, 4134132; 622178, 4133537; 621384, 4132677; 620789, 4132346; 620326, 4131817; 619664, 4131156; 619003, 4131090; 618341, 4130891; 617283, 4130957; 616688, 4131553; 616489, 4132413; 615894, 4132876; 614769, 4133206; 613976, 4133008; 613248, 4133008; 612520, 4133140; 611793, 4133537; 611197, 4134198; 611131, 4135058; 612057, 4135654; 613050, 4135786; 613711, 4135852; 614637, 4135786; 615629, 4135654; 616026, 4135257; 616158, 4134860; 616555, 4134397; 617283, 4134198; 617746, 4133802; 618540, 4134000; 619069, 4134595; 620061, 4135654; 620921, 4135852; 621847, 4135786; 622442, 4135455; 622905, 4134661; returning to 622442, 4134132.

(ii) Note: East Bay Region, Unit 6 is depicted on Map 19—Units 5, 6, 7, and 8—see paragraph (38)(ii).

(37) East Bay Region: Unit 7, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangles Lick Observatory, Isabel Valley, Morgan Hill, and Mt. Sizer. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 619400, 4126459; 619796, 4126327; 621053, 4126459; 621582, 4126393; 622641, 4126592; 623434, 4126592; 623964, 4126129; 624096, 4125467; 624096, 4124872; 623633, 4124277; 623699, 4123681; 622575, 4123417; 621384, 4123747; 620656, 4124210; 619796, 4124541; 619201, 4124078; 618540, 4123086; 618077, 4122094; 618143, 4120837; 618010, 4119779; 617217, 4118919; 616555, 4118919; 616158, 4119249; 615563, 4120043; 615100, 4121035; 614637, 4122028; 614703, 4122755; 615232, 4123218; 615629, 4123681; 615894, 4124343; 616026, 4124938; 616225, 4125070; 616489, 4126658; 616754, 4127187; 617217, 4127650; 617878, 4127650; 618804, 4127121; returning to 619400, 4126459.

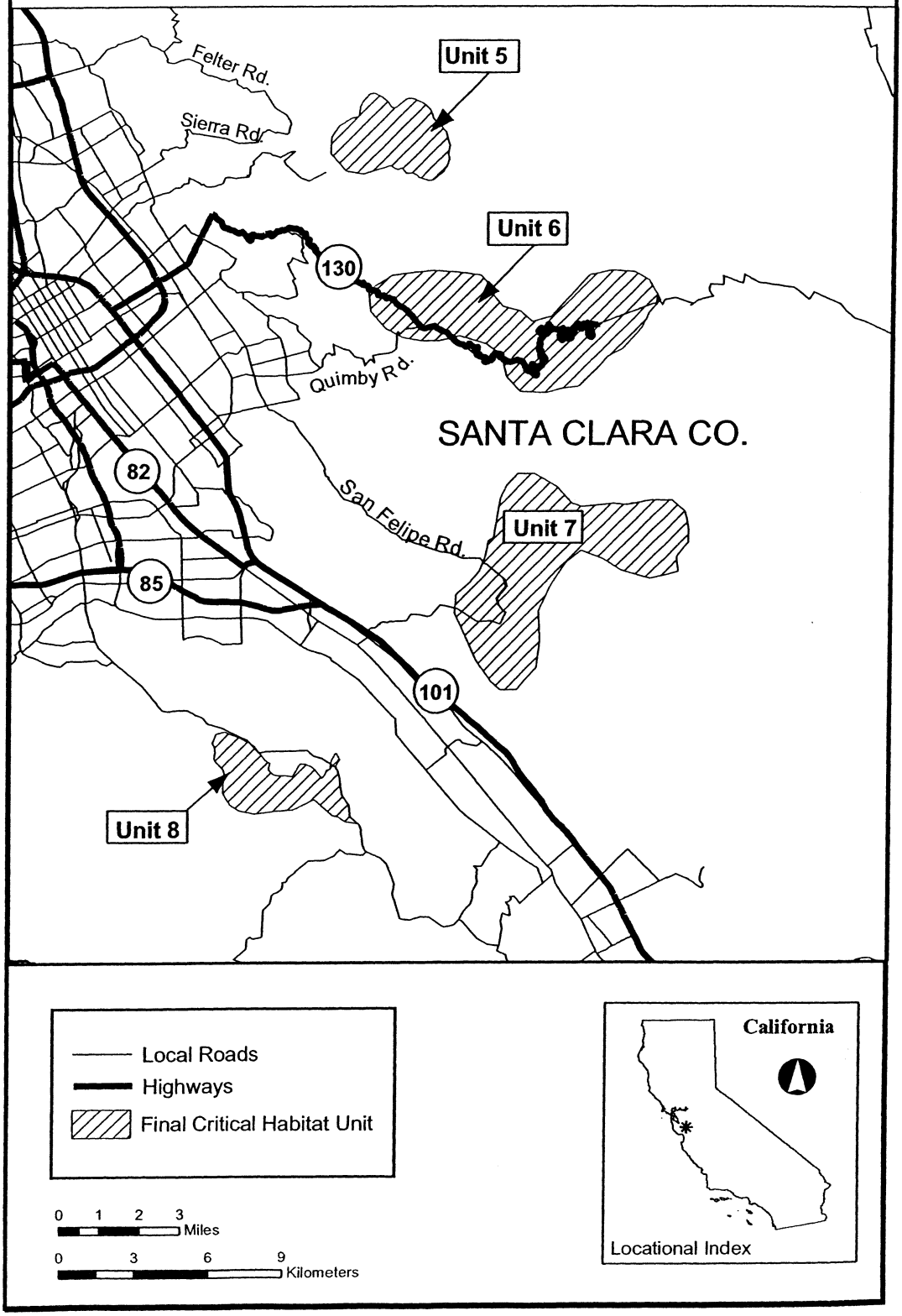
(ii) Note: East Bay Region, Unit 7 is depicted on Map 19—Units 5, 6, 7, and 8—see paragraph (38)(ii).

(38) East Bay Region: Unit 8, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangle Santa Teresa Hills. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 607465, 4115477; 607584, 4115457; 607783, 4115457; 607902, 4115457; 608219, 4115417; 608517, 4115913; 608735, 4115913; 608973, 4115834; 609112, 4115695; 609291, 4115497; 609410, 4115338; 609529, 4115536; 609588, 4115675; 609727, 4115715; 609707, 4115834; 609767, 4116052; 609866, 4116211; 609927, 4116356; 609946, 4116348; 609990, 4116306; 610036, 4116246; 610131, 4116099; 610087, 4116065; 609930, 4115808; 609958, 4115742; 610012, 4115687; 610086, 4115410; 610096, 4115322; 610135, 4115089; 610138, 4115056; 610146, 4114967; 610194, 4114679; 610388, 4114391; 610474, 4114261; 610507, 4113796; 610840, 4113506; 610342, 4113592; 610045, 4113770; 609807, 4113850; 609092, 4114485; 608239, 4114068; 607584, 4114008; 606691, 4113909; 606036, 4114028; 605699, 4114266; 605401, 4114763; 605421, 4115080; 605461, 4115556; 605401, 4115715; 605123, 4115993; 605024, 4116152; 605084, 4116449; 605024, 4116648; 604945, 4116767; 605123, 4117144; 605481, 4117223; 605758, 4117104; 606076, 4116985; 606393, 4116826; 606671, 4116668; 606830, 4116449; 607108, 4116072; 607306, 4115953; 607247, 4115775; 607247, 4115695; 607346, 4115576; returning to 607465, 4115477.

(ii) Note: East Bay Region, Unit 6 is depicted on Map 19—Units 5, 6, 7, and 8—which follows:

Map 19. Central Population of California Tiger Salamander East Bay Region, Units 5, 6, 7, 8



(39) East Bay Region: Unit 9, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangles Gilroy. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 631716, 4102121; 631597, 4102061; 631279, 4102081; 630982, 4102220; 630644, 4102478; 630466, 4102915; 630466, 4103312; 630545, 4103669; 630823, 4103966; 631061, 4104205; 631220, 4104324; 631418, 4104621; 631418, 4104760; 631101, 4104978; 630922, 4105177; 630525, 4105673; 630347, 4106110; 630307, 4106506; 630188, 4106784; 630029, 4107280; 630267, 4107558; 630466, 4107657; 630704, 4107836; 631021, 4108015; 631299, 4108074; 631608, 4108074; 632003, 4107936; 632368, 4107679; 632506, 4107363; 632605, 4107017; 632921, 4105822; 632990, 4105289; 632704, 4104716; 632506, 4104410; 632487, 4103985; 632704, 4103531; 632743, 4103156; 632664, 4102879; 632566, 4102682; 632368, 4102405; 632093, 4102121; returning to 631716, 4102121.

(ii) Note: East Bay Region, Unit 9 is depicted on Map 20—Units 9, 10a, 10b, 11, and 12—see paragraph (43)(ii).

(40) East Bay Region: Unit 10a, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangle Mt. Madonna. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 621036, 4103975; 620814, 4103967; 620501, 4104023; 620498, 4104024; 620493, 4104030; 620454, 4104197; 620640, 4104325; 620875, 4104403; 620983, 4104462; 621101, 4104491; 621238, 4104580; 621415, 4104727; 621611, 4104854; 621807, 4104903; 622072, 4104707; 622162, 4104667; 622146, 4104640; 621926, 4104390; 621741, 4104273; 621587, 4104150; 621234, 4104025; returning to 621036, 4103975.

(ii) Note: East Bay Region, Unit 10a is depicted on Map 20—Units 9, 10a, 10b, 11, and 12—see paragraph (43)(ii).

(41) East Bay Region: Unit 10b, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangles Gilroy, and Mt. Madonna. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 623013, 4101932; 623082, 4101638; 623121, 4101363; 623131, 4100981; 623033, 4100804; 622895, 4100755; 622758, 4100657; 622591, 4100500; 622573, 4100477; 622408, 4100545; 622373, 4100472; 622228, 4100526; 622167, 4100637; 622181, 4100752; 622102, 4100840; 621967, 4100895; 621852, 4101162; 621524, 4101274; 621477, 4101239; 621444, 4101255; 621189, 4101265; 621022, 4101353; 620787, 4101520; 620777, 4101706; 620885, 4101922; 620910, 4101980; 620947, 4101966; 621114, 4101924; 621263, 4101903; 621314, 4101852; 621397, 4101845; 621533, 4101885; 621594, 4102028; 621627, 4102049; 621676, 4102210; 621751, 4102302; 621833, 4102372; 621944, 4102424; 622126, 4102445; 622288, 4102596; 622376, 4102520; 622601, 4102442; 622788, 4102334; 622935, 4102158; returning to 623013, 4101932.

(ii) Note: East Bay Region, Unit 10b is depicted on Map 20—Units 9, 10a, 10b, 11, and 12—see paragraph (43)(ii).

(42) East Bay Region: Unit 11, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangle Gilroy Hot Springs. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N):639775, 4106027; 640158, 4105923; 640506, 4105923; 641028, 4106271; 641272, 4106062; 641550, 4105471; 641724, 4105192; 642385, 4105018; 642594, 4104670; 642629, 4104183; 642803, 4103730; 642768, 4103138; 643221, 4102616; 643847, 4102477; 644404, 4101676; 644056, 4101537; 643847, 4101363; 643743, 4100632; 643256, 4100180; 642629, 4100180; 641968, 4100388; 641376, 4100214; 640854, 4100075; 640088, 4100180; 639740, 4100597; 639427, 4101259; 639531, 4101920; 639322, 4102268; 638905, 4102686; 638417, 4102999; 637860, 4103521; 637129, 4103904; 636990, 4104148; 636851, 4104983; 636920, 4105366; 637129, 4105679; 637582, 4106271; 638139, 4106584; 638626, 4106445; 639009, 4106376; 639392, 4106306; returning to 639775, 4106027.

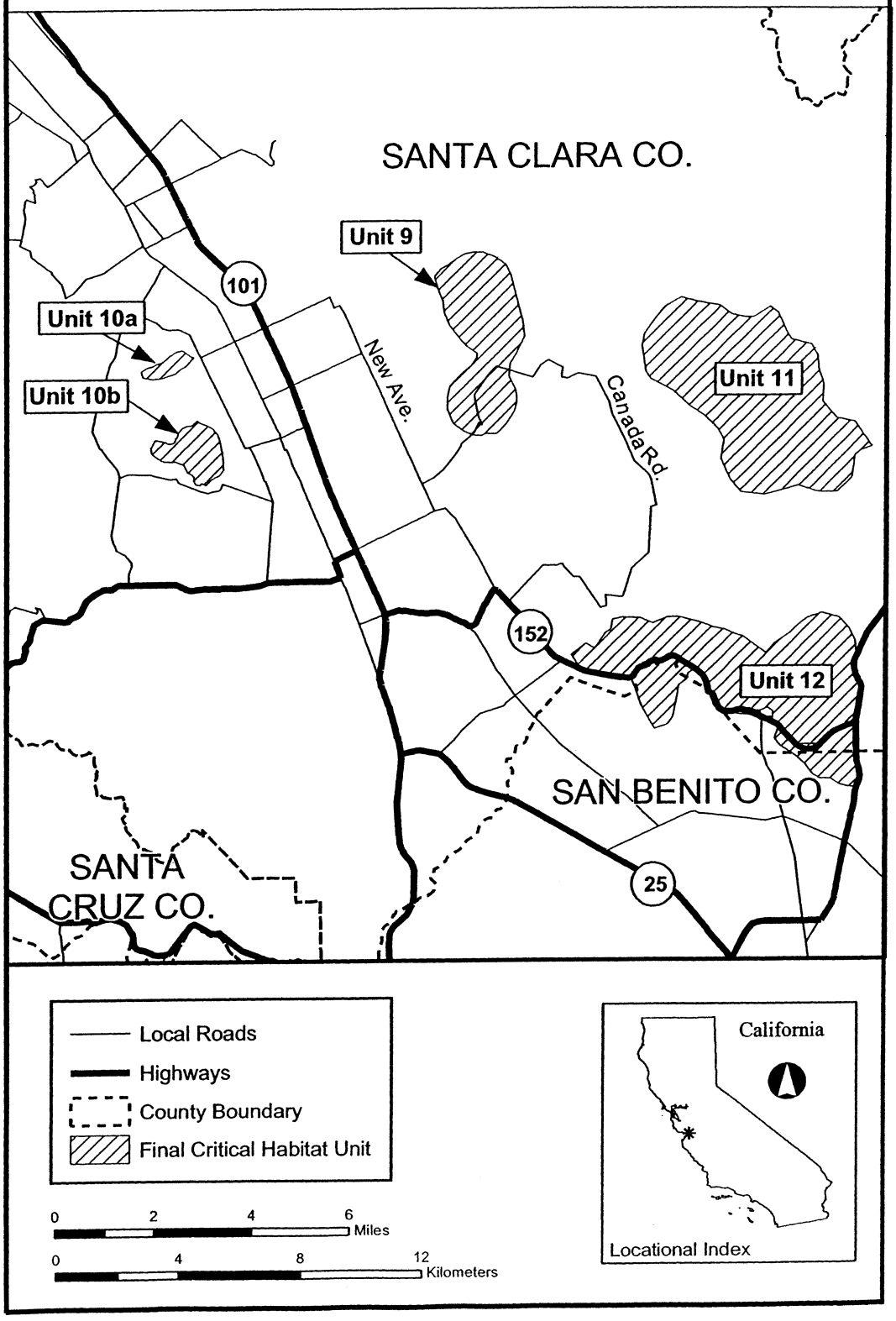
(ii) Note: East Bay Region, Unit 11 is depicted on Map 20—Units 9, 10a, 10b, 11, and 12—see paragraph (43)(ii).

(43) East Bay Region: Unit 12, Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangles Gilroy Hot Springs, and San Felipe. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 643914, 4095004; 643892, 4094772; 643829, 4094369; 643956, 4093946; 644013, 4093764; 644006, 4093721; 644006, 4093721; 643977, 4093529; 643977, 4093529; 643891, 4092970; 643891, 4092969; 643891, 4092969; 643890, 4092963; 643849, 4092776; 643849, 4092775; 643848, 4092770; 643848, 4092768; 643832, 4092624; 643832, 4092620; 643832, 4092615; 643832, 4092614; 643837, 4092282; 643838, 4092065; 643838, 4091759; 643837, 4091756; 643835, 4091751; 643834, 4091746; 643832, 4091741; 643832, 4091736; 643831, 4091731; 643831, 4091726; 643831, 4091722; 643831, 4091719; 643842, 4091603; 643851, 4091516; 643851, 4091516; 643854, 4091478; 643856, 4091367; 643856, 4091367; 643856, 4091358; 643856, 4091355; 643857, 4091350; 643858, 4091345; 643858, 4091342; 643929, 4091037; 643974, 4090778; 643946, 4090690; 643913, 4090588; 643897, 4090567; 643894, 4090563; 643891, 4090559; 643889, 4090555; 643887, 4090550; 643887, 4090549; 643885, 4090546; 643885, 4090545; 643859, 4090480; 643830, 4090454; 643640, 4090475; 643365, 4090560; 643069, 4090729; 642709, 4090729; 642497, 4090878; 642370, 4091026; 642222, 4091216; 641989, 4091428; 641800, 4091569; 641735, 4091618; 641418, 4091809; 641227, 4092063; 641312, 4092317; 641333, 4092550; 641143, 4092656; 641164, 4092952; 640994, 4093079; 640993, 4093078; 640782, 4092994; 640529, 4092994; 640528, 4092994; 640527, 4092994; 640379, 4092846; 640042, 4092867; 639767, 4092888; 639534, 4092922; 639470, 4092931; 639415, 4092984; 639320, 4093078; 639172, 4093438; 639123, 4093490; 639085, 4093565; 639045, 4093645; 638953, 4093932; 638852, 4094180; 638579, 4094348; 638410, 4094221; 638357, 4094075; 638356, 4094072; 638325, 4093988; 638108, 4093823; 638054, 4093568; 638023, 4093382; 637914, 4092762; 637744, 4092545; 637310, 4092402; 636884, 4093142; 636699, 4093626; 636543, 4094032; 634886, 4094373; 634553, 4094838; 635056, 4095202; 635335, 4095039; 635676, 4095551; 635869, 4095659; 635916, 4095992; 636218, 4096062; 636815, 4096054; 637246, 4095872; 637712, 4096063; 638093, 4096084; 638833, 4095893; 639236, 4095724; 639553, 4095661; 639913, 4095512; 640146, 4095428; 640590, 4095110; 640929, 4094877; 640930, 4094879; 640931, 4094878; 641248, 4095217; 641481, 4095365; 641672, 4095513; 641968, 4095767; 642307, 4096021; 642771, 4096190; 643342, 4096042; 643660, 4095682; 643871, 4095280; returning to 643914, 4095004.

(ii) Note: East Bay Region, Unit 12 is depicted on Map 20—Units 9, 10a, 10b, 11, and 12—which follows:

Map 20. Central Population of California Tiger Salamander East Bay Region, Units 9, 10a, 10b, 11, 12

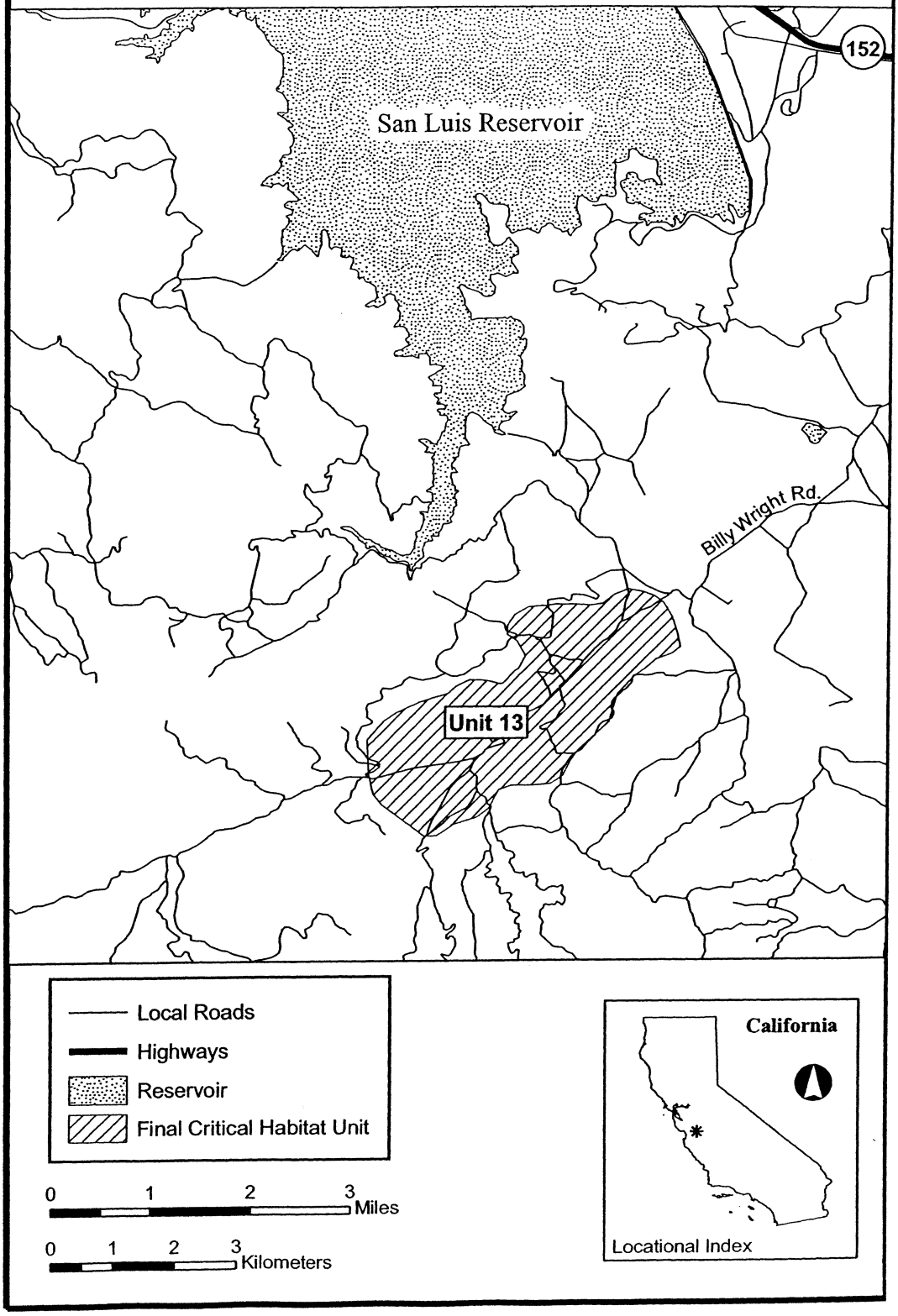


(44) East Bay Region: Unit 13, Merced County, California.

(i) From USGS 1:24,000 scale quadrangles Mariposa Peak, and Los Banos Valley. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N):670740, 4094185; 670879, 4093959; 670965, 4093691; 671019, 4093455; 670890, 4093358; 670632, 4093262; 670450, 4093101; 670299, 4093004; 670171, 4092864; 670010, 4092703; 669870, 4092242; 669645, 4092038; 669387, 4091802; 669248, 4091609; 669140, 4091383; 668947, 4091254; 668636, 4091233; 668314, 4091233; 668099, 4091169; 667949, 4090868; 667756, 4090729; 667380, 4090611; 667090, 4090428; 666886, 4090417; 666682, 4090568; 666210, 4090922; 666060, 4091104; 665996, 4091437; 665963, 4091974; 666232, 4092285; 666457, 4092424; 666800, 4092585; 667058, 4092661; 667273, 4092725; 667402, 4092832; 667616, 4092940; 667874, 4092929; 668153, 4092875; 668357, 4093079; 668421, 4093122; 668529, 4093326; 668400, 4093562; 668228, 4093669; 668228, 4093809; 668357, 4093991; 668582, 4094120; 668786, 4094131; 668872, 4094131; 668990, 4094152; 669173, 4094152; 669334, 4094152; 669559, 4094142; 669763, 4094163; 669956, 4094313; 670181, 4094399; 670439, 4094346; 670589, 4094292; returning to 670740, 4094185.

(ii) Note: Map 21 (East Bay Region, Unit 13) follows:

Map 21. Central Population of California Tiger Salamander East Bay Region, Unit 13

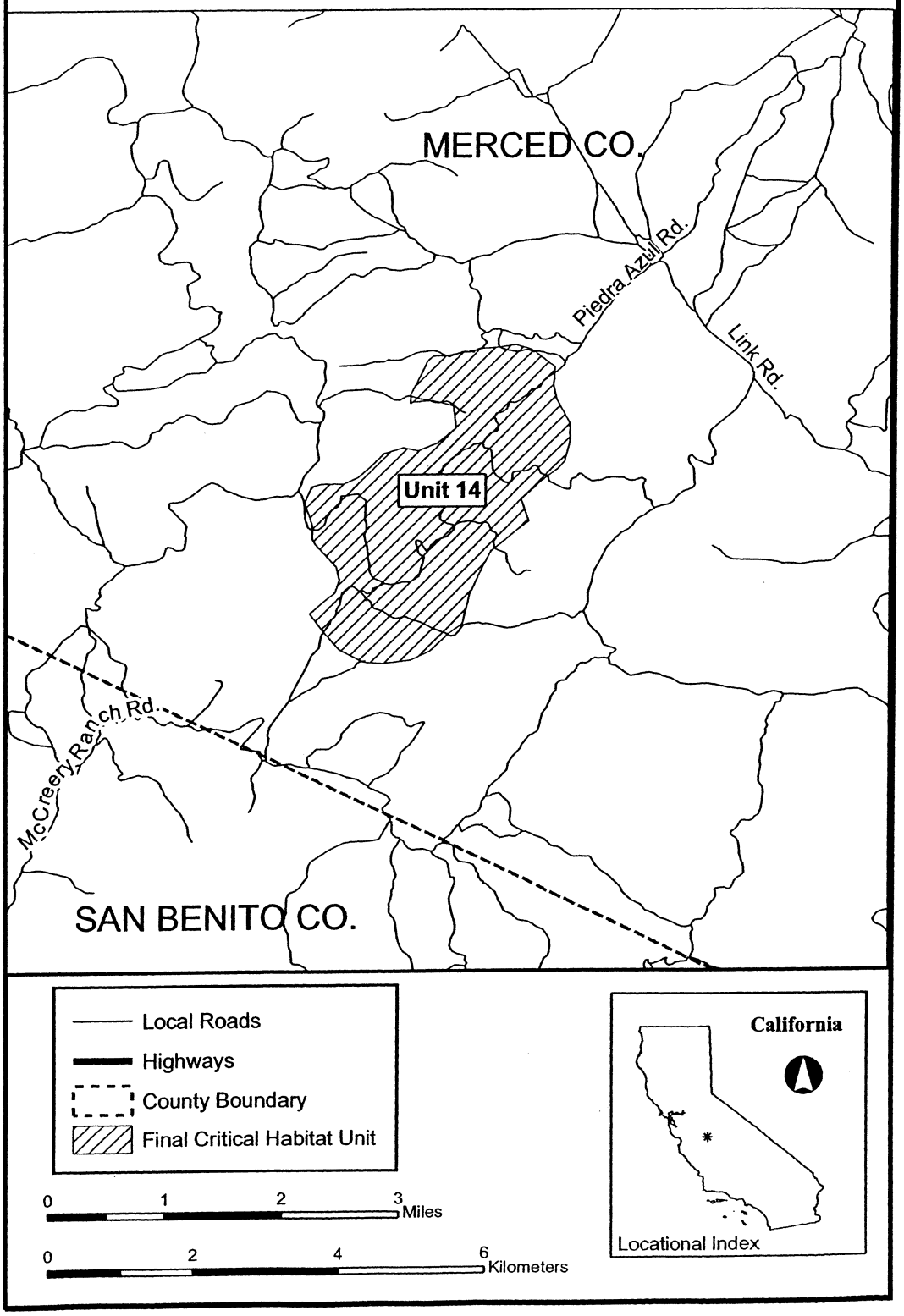


(45) East Bay Region: Unit 14, Merced County, California.

(i) From USGS 1:24,000 scale quadrangles Ruby Canyon, and Ortigalita Peak. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 679370, 4078644; 679558, 4078303; 679567, 4078064; 679490, 4077773; 679396, 4077671; 679149, 4077483; 678901, 4077253; 679003, 4076945; 678799, 4076800; 678483, 4076536; 678295, 4076186; 678184, 4075947; 678082, 4075537; 677894, 4075401; 677646, 4075162; 677382, 4075042; 676989, 4075000; 676742, 4075017; 676409, 4075187; 676161, 4075477; 676008, 4075682; 676213, 4075862; 676349, 4075964; 676409, 4076143; 676366, 4076331; 676272, 4076442; 676119, 4076604; 676085, 4076647; 676042, 4076707; 676042, 4076886; 675999, 4077031; 675931, 4077210; 676025, 4077441; 676170, 4077475; 676469, 4077475; 676665, 4077569; 676836, 4077705; 677015, 4077893; 677279, 4077970; 677476, 4077927; 677732, 4078029; 677988, 4078234; 677954, 4078542; 677663, 4078618; 677390, 4078593; 677365, 4078576; 677365, 4078695; 677510, 4078968; 677595, 4079156; 677681, 4079233; 677826, 4079233; 678022, 4079267; 678372, 4079335; 678585, 4079352; 678816, 4079386; 679029, 4079327; 679353, 4079079; 679345, 4078926; 679336, 4078823; returning to 679370, 4078644.

(ii) Note: Map 22 (East Bay Region, Unit 14) follows:

Map 22. Central Population of California Tiger Salamander East Bay Region, Unit 14



(46) East Bay Region: Unit 15a, San Benito County, California.

(i) From USGS 1:24,000 scale quadrangles Tres Pinos. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 648975, 4074659; 648866, 4074439; 648756, 4074518; 648584, 4074486; 648443, 4074424; 648345, 4074265; 647958, 4074729; 647957, 4074730; 647957, 4074730; 647737, 4074980; 647737, 4074980; 647686, 4075039; 647685, 4075039; 647683, 4075042; 647572, 4075156; 647267, 4075490; 647264, 4075493; 647261, 4075496; 647260, 4075497; 647205, 4075544; 647201, 4075547; 647197, 4075550; 647195, 4075551; 647136, 4075588; 647134, 4075589; 647129, 4075592; 647128, 4075592; 647066, 4075622; 647062, 4075623; 647059, 4075625; 646994, 4075648; 646992, 4075649; 646988, 4075650; 646985, 4075651; 646870, 4075678; 646867, 4075679; 646866, 4075679; 646057, 4075828; 646057, 4075828; 646015, 4075835; 646015, 4075836; 646014, 4075836; 645999, 4075838; 645995, 4075946; 645992, 4076037; 645986, 4076234; 645971, 4076906; 645969, 4077086; 645965, 4077530; 645965, 4077566; 645956, 4077596; 645946, 4077933; 645946, 4077933; 645953, 4077979; 645953, 4078182; 645953, 4078495; 645953, 4078809; 645953, 4079075; 645796, 4079341; 645828, 4079686; 646109, 4079873; 646313, 4080014; 646423, 4080265; 646517, 4080469; 646830, 4080672; 647080, 4080656; 647487, 4080641; 647738, 4080343; 647926, 4079920; 648036, 4079482; 647910, 4078903; 648004, 4078605; 648020, 4078245; 647910, 4077932; 647738, 4077728; 647534, 4077493; 647441, 4077258; 647503, 4077039; 647769, 4076929; 648145, 4076788; 648270, 4076679; 648396, 4076381; 648458, 4076052; 648458, 4075739; 648490, 4075598; 648662, 4075442; 648897, 4075175; returning to 648975, 4074659.

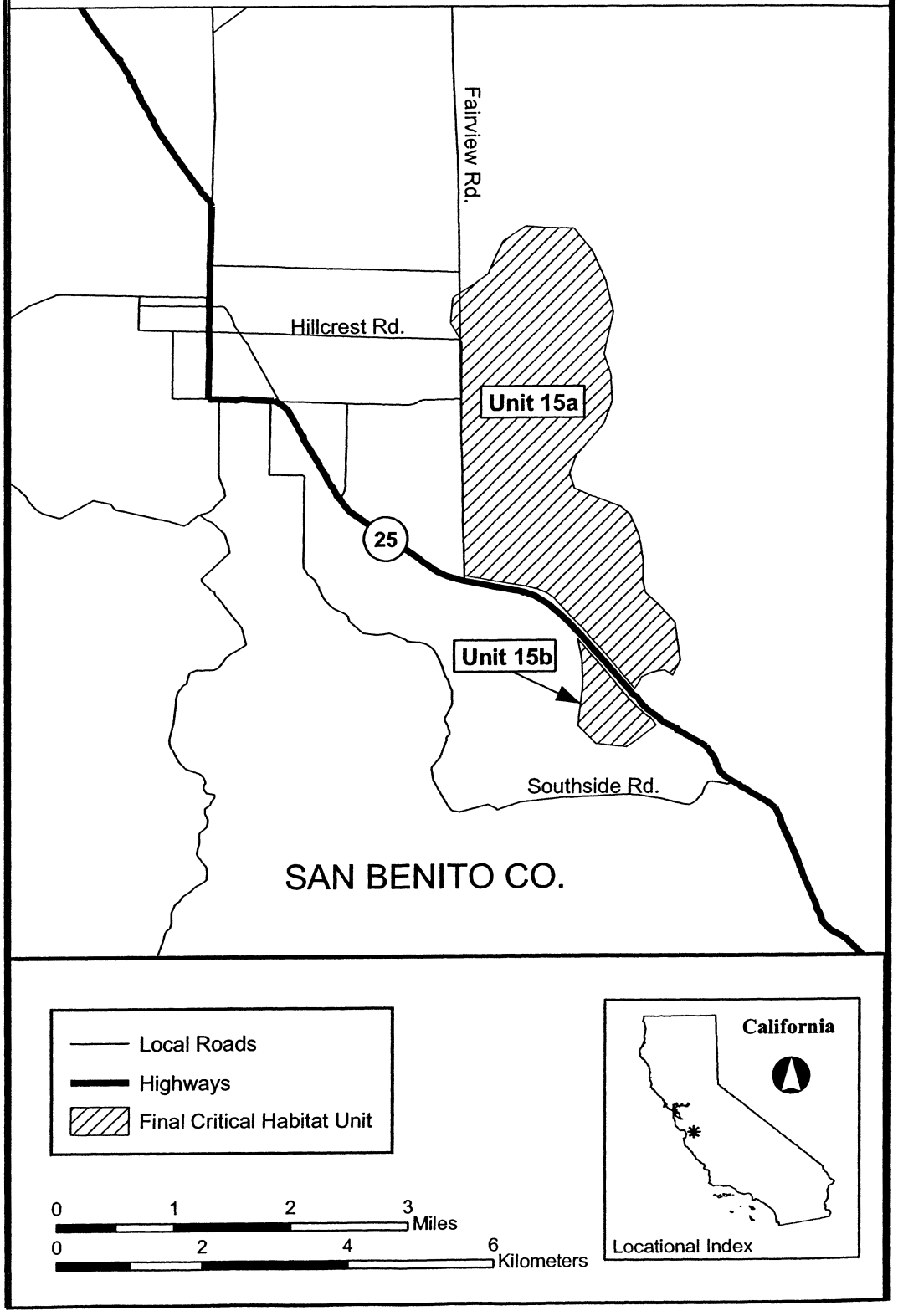
(ii) East Bay Region, Unit 15a is depicted on Map 23—Units 15a and 15b—see paragraph (47)(ii).

(47) East Bay Region: Unit 15b, San Benito County, California.

(i) From USGS 1:24,000 scale quadrangles Tres Pinos. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 648559, 4073866; 648564, 4073866; 648565, 4073866; 648646, 4073750; 648239, 4073453; 647816, 4073500; 647566, 4073750; 647628, 4074283; 647628, 4074471; 647613, 4074690; 647558, 4074952; 647572, 4074937; 647623, 4074880; 647623, 4074880; 647623, 4074879; 647842, 4074630; 648249, 4074142; 648251, 4074140; 648254, 4074137; 648366, 4074023; 648373, 4074013; 648374, 4074012; 648377, 4074008; 648381, 4074004; 648384, 4074001; 648513, 4073885; 648514, 4073885; 648518, 4073882; 648522, 4073879; 648526, 4073876; 648530, 4073874; 648535, 4073872; 648540, 4073870; 648544, 4073868; 648549, 4073867; 648554, 4073866; returning to 648559, 4073866.

(ii) Note: East Bay Region, Unit 15b is depicted on Map 23—Units 15a and 15b—which follows:

Map 23. Central Population of California Tiger Salamander East Bay Region, Units 15a, 15b

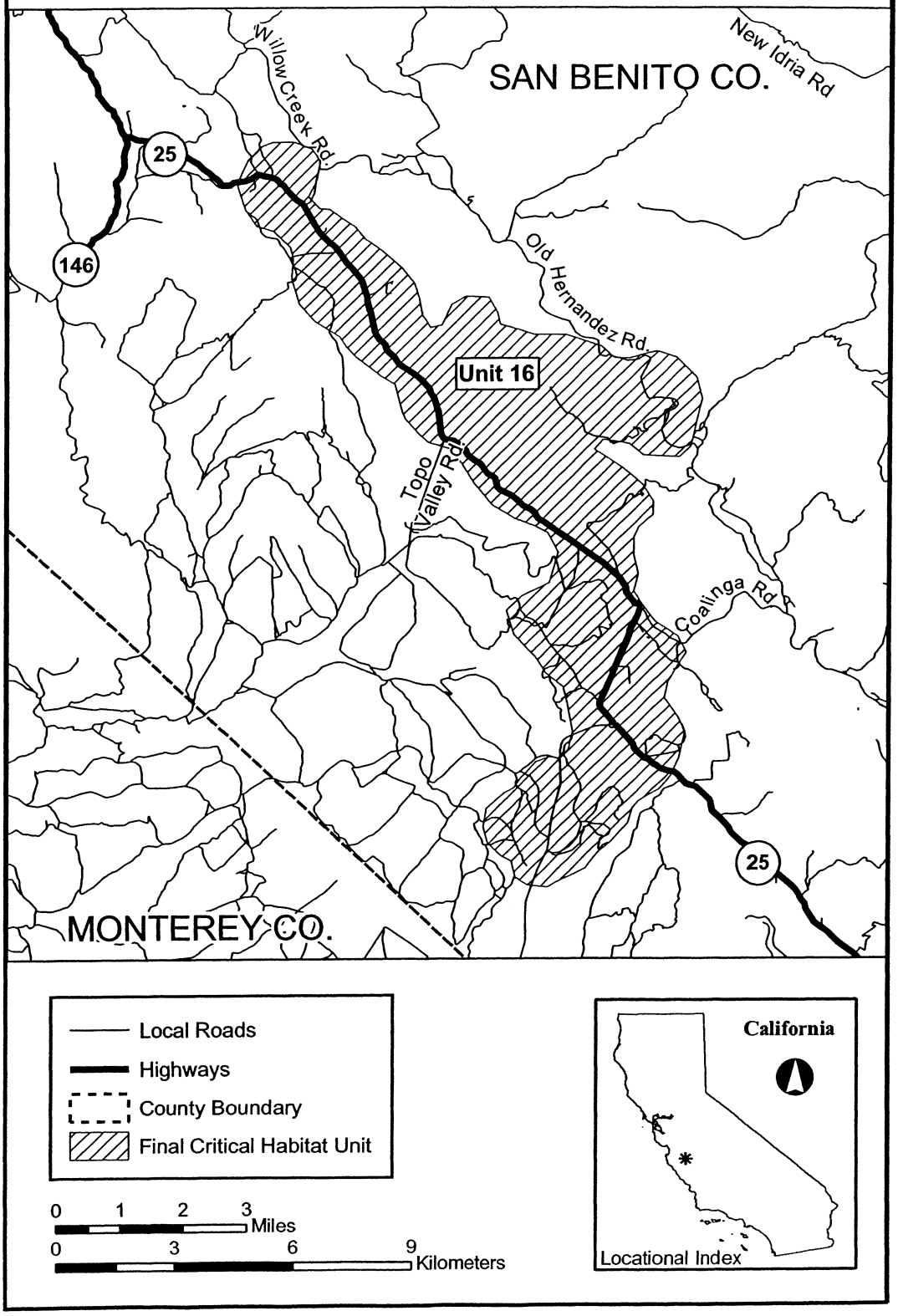


(48) East Bay Region: Unit 16, San Benito County, California.

(i) From USGS 1:24,000 scale quadrangles San Benito, Topo Valley, Rock Springs Peak, Pinalito Canyon, and Lonoak. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 674357, 4038468; 674568, 4038151; 674859, 4038204; 675098, 4038733; 675468, 4038944; 676050, 4038918; 676262, 4038547; 676341, 4038230; 676791, 4038098; 677214, 4037965; 677664, 4037965; 678008, 4037965; 678908, 4037674; 679252, 4037357; 679622, 4037357; 680310, 4037542; 680813, 4037383; 681289, 4036881; 681448, 4036325; 681315, 4035822; 681157, 4035108; 680892, 4034843; 679992, 4034896; 679622, 4035187; 678961, 4035293; 678749, 4035029; 679490, 4034552; 679992, 4034129; 680231, 4033732; 680231, 4033362; 679860, 4033044; 679754, 4032806; 679754, 4032330; 679860, 4031854; 679754, 4031430; 679992, 4031060; 680310, 4030636; 680866, 4030266; 681077, 4029869; 680892, 4029578; 680601, 4029075; 680522, 4028705; 680866, 4028202; 681051, 4027832; 680892, 4027144; 680680, 4026694; 680389, 4026350; 679887, 4026059; 679728, 4025874; 679622, 4025477; 679199, 4025027; 678881, 4024763; 678564, 4024339; 677982, 4024075; 677585, 4023863; 677082, 4023916; 676764, 4024101; 676659, 4024525; 676421, 4024657; 676050, 4025001; 675944, 4025398; 675997, 4025662; 676024, 4025874; 676500, 4026271; 676738, 4026403; 676923, 4026668; 677056, 4026774; 677294, 4027065; 677638, 4027197; 677876, 4027144; 678114, 4027356; 678220, 4027832; 678061, 4028626; 677982, 4028996; 677532, 4029340; 677267, 4029763; 676712, 4030319; 676526, 4030927; 676923, 4031298; 677611, 4031642; 677849, 4032409; 677585, 4032912; 677214, 4033097; 676712, 4033282; 676156, 4033626; 675706, 4034155; 675389, 4034685; 675071, 4035055; 674542, 4035214; 674251, 4035452; 673933, 4035822; 673854, 4036007; 673669, 4036695; 673325, 4036907; 673060, 4037119; 672690, 4037410; 672452, 4037648; 672293, 4037912; 671658, 4038309; 671261, 4038759; 671076, 4039394; 671102, 4039897; 671023, 4040214; 670600, 4040611; 670176, 4040744; 669885, 4041167; 669674, 4041802; 669938, 4042384; 670309, 4042754; 670600, 4042860; 671129, 4042860; 671579, 4042675; 671790, 4042384; 671711, 4041908; 671499, 4041484; 671764, 4041193; 672028, 4041167; 672346, 4040929; 672663, 4040717; 672928, 4040400; 673060, 4040320; 673351, 4040109; 673854, 4039659; 674145, 4039288; 674277, 4038891; returning to 674357, 4038468.

(ii) Note: Map 24 (East Bay Region, Unit 16) follows:

Map 24. Central Population of California Tiger Salamander East Bay Region, Unit 16

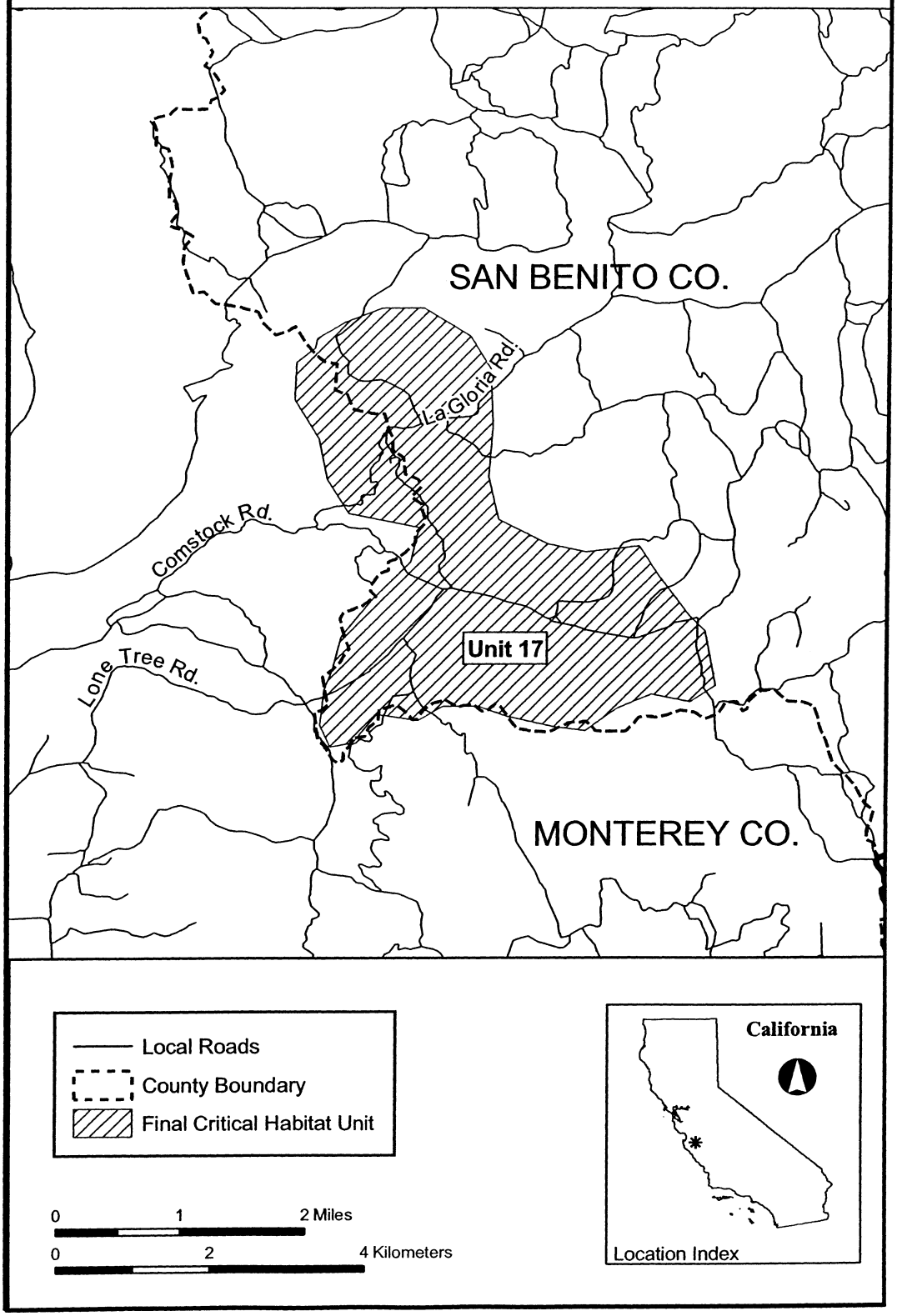


(49) East Bay Region: Unit 17, San Benito County, California, and Monterey County, California.

(i) From USGS 1:24,000 scale quadrangle Mount Johnson. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 654222, 4043469; 654725, 4043363; 655413, 4043442; 655651, 4043072; 656048, 4042543; 656259, 4042331; 656392, 4041617; 656074, 4041405; 655571, 4041511; 655148, 4041326; 654803, 4041088; 654725, 4041035; 654381, 4041078; 654301, 4041087; 653719, 4041220; 653713, 4041222; 653474, 4041307; 653349, 4041352; 653301, 4041352; 653086, 4041352; 653060, 4041352; 652873, 4041352; 652555, 4041167; 652479, 4041178; 652474, 4041179; 652049, 4041243; 652026, 4041246; 651775, 4040954; 651708, 4040876; 651686, 4040872; 651417, 4040823; 651285, 4041114; 651308, 4041306; 651338, 4041564; 651345, 4041581; 651444, 4041828; 651444, 4041831; 651550, 4042252; 651593, 4042303; 651973, 4042754; 651990, 4042771; 652003, 4042784; 652449, 4043231; 652545, 4043638; 652555, 4043680; 651655, 4043866; 651364, 4044315; 651259, 4044845; 650941, 4045347; 650968, 4045824; 651166, 4045978; 651206, 4046009; 651232, 4046141; 651603, 4046353; 652079, 4046538; 652608, 4046538; 653217, 4046168; 653481, 4045744; 653508, 4045003; 653455, 4044342; 653587, 4043786; returning to 654222, 4043469.

(ii) Note: Map 25 (East Bay Region, Unit 17) follows:

Map 25. Central Population of California Tiger Salamander East Bay Region, Unit 17

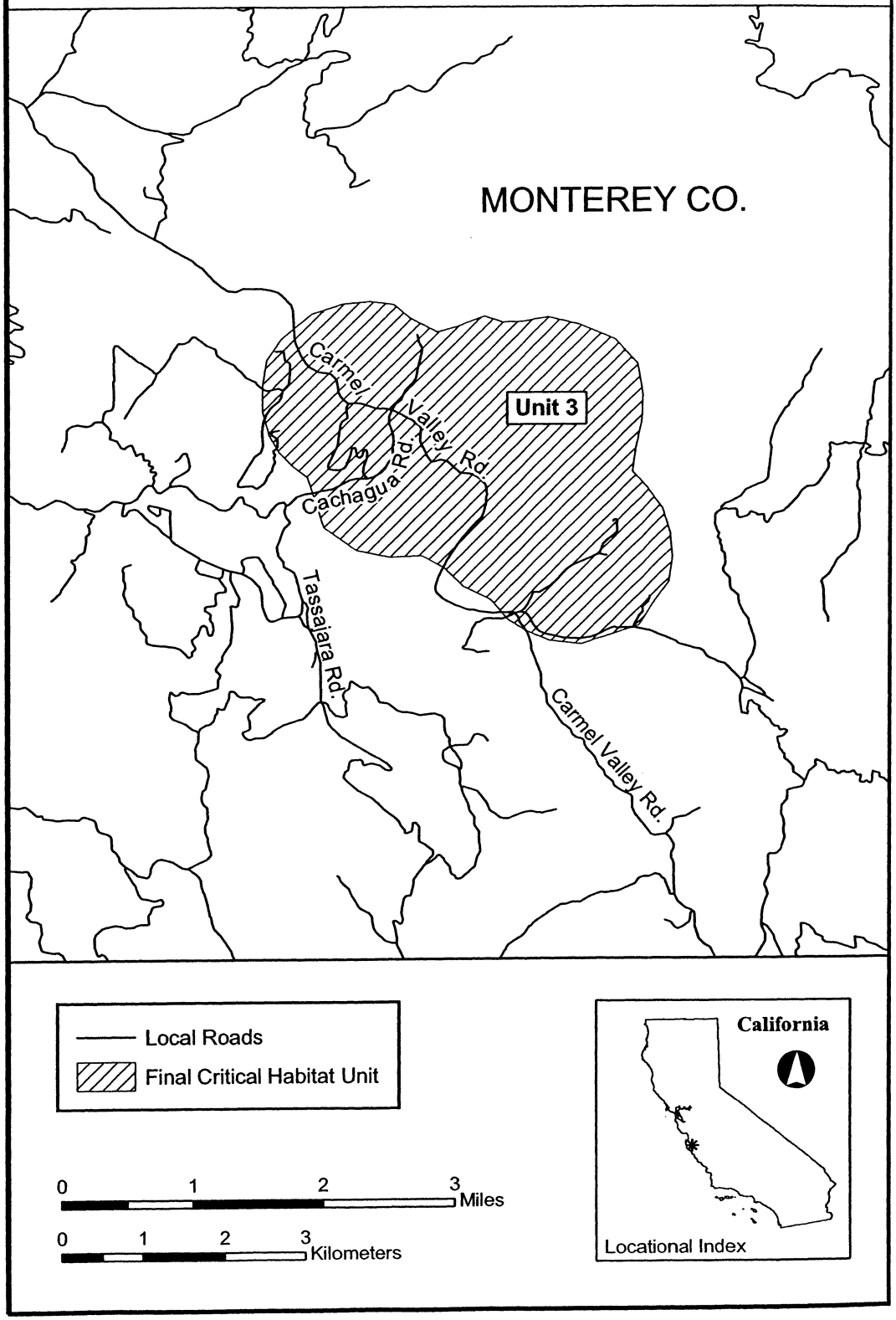


(50) Central Coast Region: Unit 3, Monterey County, California.

(i) From USGS 1:24,000 scale quadrangles Rana Creek. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 627509, 4030548; 627840, 4030382; 628072, 4030440; 628412, 4030573; 628645, 4030498; 628902, 4030506; 629208, 4030564; 629590, 4030473; 630029, 4030282; 630294, 4029984; 630361, 4029602; 630353, 4029296; 630278, 4028939; 630236, 4028649; 630427, 4028450; 630610, 4028201; 630701, 4027903; 630726, 4027588; 630684, 4027273; 630477, 4026991; 630319, 4026742; 629623, 4026518; 629233, 4026560; 628926, 4026684; 628711, 4026825; 628487, 4027074; 628155, 4027231; 627923, 4027463; 627650, 4027613; 627252, 4027596; 626845, 4027687; 626456, 4027969; 626373, 4028218; 626257, 4028591; 626074, 4028732; 625908, 4028906; 625784, 4029113; 625701, 4029403; 625701, 4029694; 625751, 4030034; 625933, 4030299; 626306, 4030606; 626688, 4030730; 627011, 4030763; 627301, 4030722; returning to 627509, 4030548.

(ii) Note: Map 26 (Central Coast Region, Unit 3) follows:

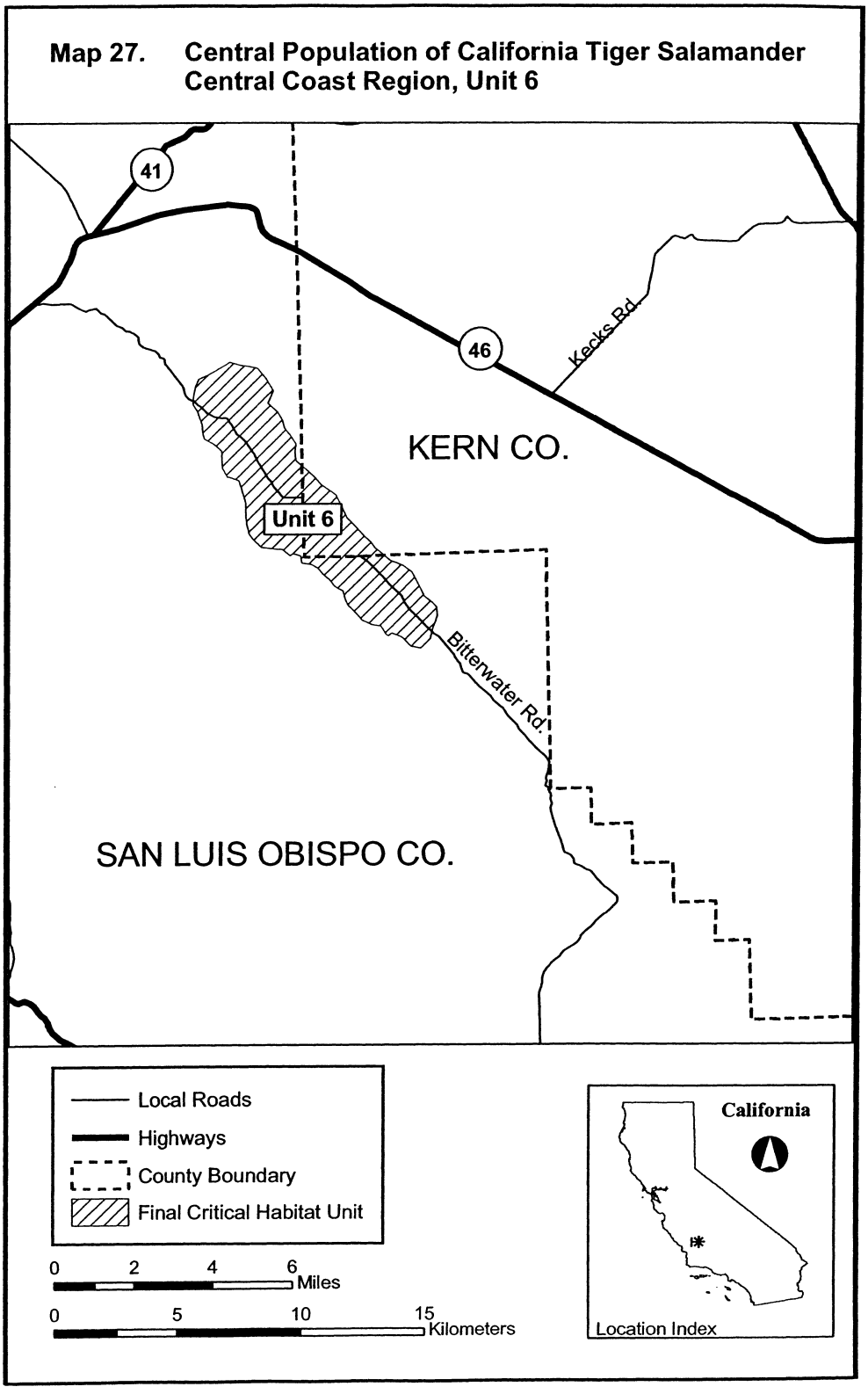
Map 26. Central Population of California Tiger Salamander Central Coast Region, Unit 3



(51) Central Coast Region: Unit 6, Kern County, California, and San Luis Obispo County, California.

(i) From USGS 1:24,000 scale quadrangles Orchard Peak, and Holland Canyon. Land bounded by the following UTM Zone 10, NAD83 coordinates (E,N): 757032, 3945151; 757374, 3944871; 757614, 3944675; 758116, 3944463; 758513, 3944172; 758831, 3943590; 759016, 3943193; 759360, 3942929; 759519, 3942770; 759545, 3942399; 759386, 3941950; 759254, 3941447; 758884, 3941076; 758487, 3941156; 758090, 3941553; 757693, 3941711; 757561, 3941579; 757481, 3941632; 757243, 3942002; 756873, 3942055; 756503, 3942241; 756264, 3942505; 755920, 3942876; 755815, 3943114; 755709, 3943431; 755497, 3943537; 755391, 3943616; 755180, 3943881; 754941, 3944093; 754730, 3944331; 754439, 3944516; 754068, 3944569; 754015, 3944860; 753724, 3944939; 753592, 3944860; 753275, 3945098; 752851, 3945151; 752428, 3945204; 752084, 3945521; 751925, 3945760; 751819, 3946104; 751793, 3946447; 751766, 3947030; 751608, 3947559; 751502, 3947903; 751026, 3948061; 750840, 3948405; 750814, 3948776; 750814, 3949120; 750523, 3949384; 750100, 3949622; 750047, 3949887; 750020, 3950152; 749835, 3950734; 749650, 3951025; 749676, 3951342; 749756, 3951739; 749888, 3952030; 750444, 3952295; 750840, 3952533; 751131, 3952718; 751634, 3952586; 751899, 3952559; 752243, 3952480; 752613, 3952030; 752878, 3951554; 752666, 3951051; 753063, 3950707; 753248, 3950390; 753328, 3950046; 753566, 3949781; 753804, 3949411; 753777, 3949014; 753804, 3948723; 754062, 3948505; 754306, 3948300; 754598, 3948035; 754862, 3947717; 755418, 3947321; 755629, 3946924; 755868, 3946421; 756238, 3946024; 756529, 3945680; 756820, 3945416; returning to 757032, 3945151.

(ii) Note: Map 27 (Central Coast Region, Unit 6) follows:



Dated: August 10, 2005.

Julie MacDonald,

Acting Assistant Secretary for Fish and Wildlife and Parks.

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